# TABLE OF CONTENTS

- Introduction ................................................................................................................................. 22
- Academic Programs ...................................................................................................................... 24
- Catalog Archives ......................................................................................................................... 29
- Colleges & Schools ..................................................................................................................... 29
- Arts and Sciences, College of .................................................................................................. 30
- Departments and Programs ....................................................................................................... 37
  - Architecture, Urban Planning and Design ............................................................................. 38
    - Architectural Studies Major ................................................................................................. 45
    - Historic Preservation - Graduate Certificate .................................................................. 46
    - Bachelor of Arts: Urban Planning and Design ................................................................. 48
    - Bachelor of Arts: Urban Studies ......................................................................................... 52
    - Minor in Urban Studies ...................................................................................................... 58
  - Anthropology - minor ............................................................................................................. 60
  - Art and Art History ................................................................................................................. 61
    - Bachelor of Arts: Art History .............................................................................................. 74
    - Bachelor of Arts: Studio Art ............................................................................................... 78
    - Master of Arts: Art History ............................................................................................... 81
    - Master of Arts: Studio Art ............................................................................................... 83
    - Minor in Art and Visual Communication ......................................................................... 85
    - Minor in Art History ......................................................................................................... 86
    - Minor in Studio Art ........................................................................................................... 87
  - Bioethics .................................................................................................................................. 88
    - Graduate Certificate in Bioethics ....................................................................................... 89
  - Black Studies .......................................................................................................................... 90
    - Bachelor of Liberal Arts: Black Studies Emphasis ............................................................ 95
    - Graduate Certificate in Black Studies .............................................................................. 99
    - Master of Arts in Liberal Studies: Black Studies Informal Emphasis ............................. 101
    - Minor in Black Studies ..................................................................................................... 103
  - Chemistry ............................................................................................................................... 105
    - Bachelor of Arts: Chemistry ............................................................................................. 115
    - Bachelor of Science: Chemistry ......................................................................................... 125
    - Master of Science: Chemistry .......................................................................................... 129
      - Master of Science in Chemistry (Non-Thesis) .............................................................. 130
      - Master of Science in Chemistry (Thesis-Based) ........................................................... 131
    - Minor in Chemistry .......................................................................................................... 133
  - Classical and Ancient Studies ............................................................................................... 135
    - English Department: Emphasis in Classical, Medieval, and Early Modern Literature .... 140
    - Foreign Languages and Literatures Department: Emphasis in Greek and Latin .......... 141
    - History Department: Antiquity and Medieval History Concentration ....................... 142
    - Minor in Classical and Ancient Studies ............................................................................ 143
<table>
<thead>
<tr>
<th>Program</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Studies</td>
<td>144</td>
</tr>
<tr>
<td>Bachelor of Arts: Communication Studies - Film and Media Studies Emphasis</td>
<td>155</td>
</tr>
<tr>
<td>Bachelor of Arts: Communication Studies - Interpersonal and Public Communication Emphasis</td>
<td>159</td>
</tr>
<tr>
<td>Bachelor of Arts: Communication Studies - Journalism and Mass Communications Emphasis</td>
<td>163</td>
</tr>
<tr>
<td>Bachelor of Arts: Film and Media Arts</td>
<td>173</td>
</tr>
<tr>
<td>Minor in Communication Studies</td>
<td>177</td>
</tr>
<tr>
<td>Minor in Film Studies</td>
<td>178</td>
</tr>
<tr>
<td>Criminal Justice and Criminology</td>
<td>180</td>
</tr>
<tr>
<td>Bachelor of Arts: Criminal Justice and Criminology</td>
<td>187</td>
</tr>
<tr>
<td>Master of Science: Criminal Justice and Criminology</td>
<td>191</td>
</tr>
<tr>
<td>Minor in Criminal Justice and Criminology</td>
<td>193</td>
</tr>
<tr>
<td>Economics</td>
<td>194</td>
</tr>
<tr>
<td>Bachelor of Arts: Economics</td>
<td>206</td>
</tr>
<tr>
<td>Minor in Economics</td>
<td>216</td>
</tr>
<tr>
<td>Undergraduate Certificate Program in Labor Studies</td>
<td>217</td>
</tr>
<tr>
<td>Master of Arts: Economics</td>
<td>218</td>
</tr>
<tr>
<td>Interdisciplinary Ph.D.</td>
<td>220</td>
</tr>
<tr>
<td>Dual Degree - BA / MA in Economics</td>
<td>221</td>
</tr>
<tr>
<td>English Language and Literature</td>
<td>222</td>
</tr>
<tr>
<td>Bachelor of Arts: English</td>
<td>246</td>
</tr>
<tr>
<td>Bachelor of Arts: English Creative Writing Emphasis</td>
<td>252</td>
</tr>
<tr>
<td>Bachelor of Arts: English Classical, Medieval, &amp; Early Modern Literature Emphasis</td>
<td>258</td>
</tr>
<tr>
<td>Bachelor of Arts: English Language and Rhetoric Emphasis</td>
<td>262</td>
</tr>
<tr>
<td>Teacher Certification in English</td>
<td>268</td>
</tr>
<tr>
<td>Minor in Creative Writing</td>
<td>269</td>
</tr>
<tr>
<td>Minor in English Language and Literature</td>
<td>272</td>
</tr>
<tr>
<td>Minor in Manuscript, Print Culture, and Editing</td>
<td>274</td>
</tr>
<tr>
<td>Minor in Writing</td>
<td>276</td>
</tr>
<tr>
<td>Master of Arts: English</td>
<td>277</td>
</tr>
<tr>
<td>Master of Fine Arts: Creative Writing and Media Arts</td>
<td>282</td>
</tr>
<tr>
<td>Master of Fine Arts: Creative Writing and Media Arts - Creative Nonfiction Option</td>
<td>284</td>
</tr>
<tr>
<td>Master of Fine Arts: Creative Writing and Media Arts - Fiction Option</td>
<td>287</td>
</tr>
<tr>
<td>Master of Fine Arts: Creative Writing and Media Arts - Playwriting Option</td>
<td>290</td>
</tr>
<tr>
<td>Master of Fine Arts: Creative Writing and Media Arts - Poetry Option</td>
<td>293</td>
</tr>
<tr>
<td>Master of Fine Arts: Creative Writing and Media Arts - Screenwriting Option</td>
<td>296</td>
</tr>
<tr>
<td>Interdisciplinary Ph.D in English</td>
<td>299</td>
</tr>
<tr>
<td>Environmental Studies Program</td>
<td>300</td>
</tr>
<tr>
<td>Family Studies</td>
<td>302</td>
</tr>
<tr>
<td>Family Studies Minor</td>
<td>303</td>
</tr>
<tr>
<td>Foreign Languages and Literatures</td>
<td>304</td>
</tr>
<tr>
<td>Bachelor of Arts: Languages and Literatures</td>
<td>323</td>
</tr>
<tr>
<td>German Studies Minor</td>
<td>327</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Honors Program</td>
<td>705</td>
</tr>
<tr>
<td>Minor in Biology</td>
<td>706</td>
</tr>
<tr>
<td>Teacher Certification in Biology</td>
<td>707</td>
</tr>
<tr>
<td>Elective Courses for the Non-Biology Major</td>
<td>708</td>
</tr>
<tr>
<td>Master of Science in Cellular and Molecular Biology</td>
<td>709</td>
</tr>
<tr>
<td>Master of Arts in Biology</td>
<td>711</td>
</tr>
<tr>
<td>Doctor of Philosophy Study</td>
<td>712</td>
</tr>
<tr>
<td>Computing and Engineering, School of</td>
<td>713</td>
</tr>
<tr>
<td>Civil Engineering and Mechanical Engineering Department</td>
<td>766</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>794</td>
</tr>
<tr>
<td>Bachelor of Science in Civil Engineering</td>
<td>795</td>
</tr>
<tr>
<td>Civil Engineering Career Opportunities</td>
<td>799</td>
</tr>
<tr>
<td>Civil Engineering Program Description</td>
<td>800</td>
</tr>
<tr>
<td>Civil Engineering Specialty Areas</td>
<td>801</td>
</tr>
<tr>
<td>Doctoral Studies in Civil Engineering</td>
<td>802</td>
</tr>
<tr>
<td>Engineering and Construction Project Management Certificate</td>
<td>803</td>
</tr>
<tr>
<td>Master of Science in Civil Engineering</td>
<td>804</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>805</td>
</tr>
<tr>
<td>Bachelor of Science in Mechanical Engineering</td>
<td>806</td>
</tr>
<tr>
<td>Doctoral Studies in Mechanical Engineering</td>
<td>810</td>
</tr>
<tr>
<td>Master of Science in Mechanical Engineering</td>
<td>811</td>
</tr>
<tr>
<td>Mechanical Engineering Career Opportunities</td>
<td>812</td>
</tr>
<tr>
<td>Mechanical Engineering Program Description</td>
<td>813</td>
</tr>
<tr>
<td>Mechanical Engineering Specialty Areas</td>
<td>814</td>
</tr>
<tr>
<td>Department of Computer Science Electrical Engineering</td>
<td>815</td>
</tr>
<tr>
<td>Bachelor of Information Technology</td>
<td>849</td>
</tr>
<tr>
<td>Bachelor of Science: Computer Science</td>
<td>853</td>
</tr>
<tr>
<td>Bachelor of Arts: Computer Science</td>
<td>858</td>
</tr>
<tr>
<td>BS/MS Program in Computer Science</td>
<td>862</td>
</tr>
<tr>
<td>Minor in Computer Science</td>
<td>864</td>
</tr>
<tr>
<td>Bachelor of Science in Electrical and Computer Engineering</td>
<td>865</td>
</tr>
<tr>
<td>BS/MS Electrical and Computer Engineering/Electrical Engineering</td>
<td>869</td>
</tr>
<tr>
<td>Master of Science in Computer Science</td>
<td>871</td>
</tr>
<tr>
<td>Master of Science in Electrical Engineering</td>
<td>877</td>
</tr>
<tr>
<td>Doctoral Studies in Computer Science or Electrical Engineering</td>
<td>882</td>
</tr>
<tr>
<td>Dual Degree Programs</td>
<td>883</td>
</tr>
<tr>
<td>Dentistry, School of</td>
<td>884</td>
</tr>
<tr>
<td>General Information and History</td>
<td>911</td>
</tr>
<tr>
<td>Mission, Vision and Goals</td>
<td>912</td>
</tr>
<tr>
<td>Research Programs</td>
<td>913</td>
</tr>
<tr>
<td>Facilities</td>
<td>914</td>
</tr>
<tr>
<td>Academic/Student Support Services</td>
<td>915</td>
</tr>
<tr>
<td>Minor in Health Sciences</td>
<td>..................................................</td>
</tr>
<tr>
<td>Minor in Public Health</td>
<td>..........................................................</td>
</tr>
<tr>
<td>Organizations</td>
<td>........................................................................</td>
</tr>
<tr>
<td>Ph.D. in Nursing</td>
<td>.......................................................................</td>
</tr>
<tr>
<td>Pharmacy, School of</td>
<td>........................................................................</td>
</tr>
<tr>
<td>Academic Regulations and Requirements</td>
<td>..........................................................</td>
</tr>
<tr>
<td>Scholarships, Special Awards and Financial Assistance</td>
<td>................................................................</td>
</tr>
<tr>
<td>Doctor of Pharmacy</td>
<td>.......................................................................</td>
</tr>
<tr>
<td>Doctor of Pharmacy Professional Program</td>
<td>......................................................................</td>
</tr>
<tr>
<td>Interdisciplinary Ph.D. Degree Requirements in Pharmaceutical Sciences and Pharmacology</td>
<td>..................................................................</td>
</tr>
<tr>
<td>University College</td>
<td>.........................................................................</td>
</tr>
<tr>
<td>Course Offerings</td>
<td>.........................................................................</td>
</tr>
<tr>
<td>Undergraduate Course Offerings</td>
<td>........................................................................</td>
</tr>
<tr>
<td>Accounting (ACCTNG)</td>
<td>........................................................................</td>
</tr>
<tr>
<td>Anchor (ANCH)</td>
<td>..........................................................................</td>
</tr>
<tr>
<td>Anthropology (ANTHRO)</td>
<td>........................................................................</td>
</tr>
<tr>
<td>Arabic (ARABIC)</td>
<td>........................................................................</td>
</tr>
<tr>
<td>Architectural Studies (ENV-DSN)</td>
<td>.....................................................................</td>
</tr>
<tr>
<td>Art (ART)</td>
<td>........................................................................</td>
</tr>
<tr>
<td>Art History (ART-HIST)</td>
<td>........................................................................</td>
</tr>
<tr>
<td>Arts &amp; Sciences - General (A&amp;S)</td>
<td>.....................................................................</td>
</tr>
<tr>
<td>Astronomy (ASTR)</td>
<td>........................................................................</td>
</tr>
<tr>
<td>Bassoon (BASSOON)</td>
<td>........................................................................</td>
</tr>
<tr>
<td>Biology (BIOLOGY)</td>
<td>........................................................................</td>
</tr>
<tr>
<td>Black Studies (BLKS)</td>
<td>........................................................................</td>
</tr>
<tr>
<td>Cello (CELLO)</td>
<td>........................................................................</td>
</tr>
<tr>
<td>Chemistry (CHEM)</td>
<td>........................................................................</td>
</tr>
<tr>
<td>Civil Engineering (CIV-ENGR)</td>
<td>....................................................................</td>
</tr>
<tr>
<td>Clarinet (CLARINET)</td>
<td>........................................................................</td>
</tr>
<tr>
<td>Classics (CLASSICS)</td>
<td>........................................................................</td>
</tr>
<tr>
<td>Communication Studies (COMM-ST)</td>
<td>..................................................................</td>
</tr>
<tr>
<td>Computer Science (COMP-SCI)</td>
<td>.......................................................................</td>
</tr>
<tr>
<td>Conservatory (CONSVTY)</td>
<td>.......................................................................</td>
</tr>
<tr>
<td>Counseling Psychology and Counselor Education (CPCE)</td>
<td>..................................................................</td>
</tr>
<tr>
<td>Criminal Justice and Criminology (CJC)</td>
<td>....................................................................</td>
</tr>
<tr>
<td>Curriculum and Instruction (EDUC-C&amp;I)</td>
<td>...................................................................</td>
</tr>
<tr>
<td>Dance (DANCE)</td>
<td>........................................................................</td>
</tr>
<tr>
<td>Decision Science and Operations Management (DSOM)</td>
<td>..................................................................</td>
</tr>
<tr>
<td>Dental Hygiene (DENT-HYG)</td>
<td>........................................................................</td>
</tr>
<tr>
<td>Discourse (DISC)</td>
<td>........................................................................</td>
</tr>
<tr>
<td>Economics (ECON)</td>
<td>........................................................................</td>
</tr>
<tr>
<td>Education (EDUC)</td>
<td>........................................................................</td>
</tr>
<tr>
<td>Subject</td>
<td>Year</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Education Research and Psychology (EDUC-R&amp;P)</td>
<td>1868</td>
</tr>
<tr>
<td>Electrical and Computer Engineering (E&amp;C-ENGR)</td>
<td>1869</td>
</tr>
<tr>
<td>English Language &amp; Literature (ENGLISH)</td>
<td>1876</td>
</tr>
<tr>
<td>Entrepreneurship (ENT)</td>
<td>1890</td>
</tr>
<tr>
<td>Environmental Sciences (ENV-SCI)</td>
<td>1892</td>
</tr>
<tr>
<td>Environmental Studies (ENV-STUDY)</td>
<td>1893</td>
</tr>
<tr>
<td>Euphonium (EUPHNMD)</td>
<td>1893</td>
</tr>
<tr>
<td>Finance (FIN)</td>
<td>1894</td>
</tr>
<tr>
<td>Flute (FLUTE)</td>
<td>1895</td>
</tr>
<tr>
<td>Foreign Language (FRN-LNG)</td>
<td>1896</td>
</tr>
<tr>
<td>French (FRENCH)</td>
<td>1897</td>
</tr>
<tr>
<td>Geography (GEOG)</td>
<td>1899</td>
</tr>
<tr>
<td>Geology (GEOLOGY)</td>
<td>1903</td>
</tr>
<tr>
<td>German (GERMAN)</td>
<td>1906</td>
</tr>
<tr>
<td>Greek (GREEK)</td>
<td>1909</td>
</tr>
<tr>
<td>Guitar (GUITAR)</td>
<td>1910</td>
</tr>
<tr>
<td>Harpsichord (HRPCHD)</td>
<td>1910</td>
</tr>
<tr>
<td>Health Sciences (HLSC)</td>
<td>1911</td>
</tr>
<tr>
<td>History (HISTORY)</td>
<td>1915</td>
</tr>
<tr>
<td>Honors (HONORS)</td>
<td>1924</td>
</tr>
<tr>
<td>Horn (HORN)</td>
<td>1928</td>
</tr>
<tr>
<td>Information Technology (INFO-TEC)</td>
<td>1928</td>
</tr>
<tr>
<td>Integrated Studies (INTGR)</td>
<td>1929</td>
</tr>
<tr>
<td>Italian (ITALIAN)</td>
<td>1930</td>
</tr>
<tr>
<td>Latin (LATIN)</td>
<td>1930</td>
</tr>
<tr>
<td>Latina / Latino Studies (LLS)</td>
<td>1931</td>
</tr>
<tr>
<td>Life Sciences (LIFE-SCI)</td>
<td>1932</td>
</tr>
<tr>
<td>Life Sciences - Anatomy (LS-ANATO)</td>
<td>1935</td>
</tr>
<tr>
<td>Life Sciences - Biochemistry (LS-BIOC)</td>
<td>1935</td>
</tr>
<tr>
<td>Life Sciences - Microbiology (LS-MCRB)</td>
<td>1936</td>
</tr>
<tr>
<td>Life Sciences - Physiology (LS-PHY)</td>
<td>1937</td>
</tr>
<tr>
<td>Management (MGT)</td>
<td>1938</td>
</tr>
<tr>
<td>Management Information Systems (MIS)</td>
<td>1939</td>
</tr>
<tr>
<td>Marketing (MKT)</td>
<td>1940</td>
</tr>
<tr>
<td>Mathematics (MATH)</td>
<td>1941</td>
</tr>
<tr>
<td>Mechanical Engineering (MEC-ENGR)</td>
<td>1945</td>
</tr>
<tr>
<td>Military Sciences (MIL-SCI)</td>
<td>1950</td>
</tr>
<tr>
<td>Natural Sciences (NAT-SCI)</td>
<td>1952</td>
</tr>
<tr>
<td>Nursing (NURSE)</td>
<td>1953</td>
</tr>
<tr>
<td>Oboe (OBOE)</td>
<td>1958</td>
</tr>
<tr>
<td>Organ (ORGAN)</td>
<td>1958</td>
</tr>
<tr>
<td>Percussion (PERCSN)</td>
<td>1959</td>
</tr>
<tr>
<td>Discipline</td>
<td>Year</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Philosophy (PHILOS)</td>
<td>1959</td>
</tr>
<tr>
<td>Physical Education (PHYS-ED)</td>
<td>1962</td>
</tr>
<tr>
<td>Physical Sciences (PHY-SCI)</td>
<td>1964</td>
</tr>
<tr>
<td>Physics (PHYSICS)</td>
<td>1965</td>
</tr>
<tr>
<td>Piano (PIANO)</td>
<td>1968</td>
</tr>
<tr>
<td>Political Science (POL-SCI)</td>
<td>1969</td>
</tr>
<tr>
<td>Psychology (PSYCH)</td>
<td>1973</td>
</tr>
<tr>
<td>Public Administration (PUB-ADM)</td>
<td>1976</td>
</tr>
<tr>
<td>Public Health (PBHL)</td>
<td>1977</td>
</tr>
<tr>
<td>Reading (EDRD)</td>
<td>1978</td>
</tr>
<tr>
<td>Real Estate (RL-EST)</td>
<td>1978</td>
</tr>
<tr>
<td>Religious Studies (RELIG-ST)</td>
<td>1979</td>
</tr>
<tr>
<td>Saxophone (SAXOPH)</td>
<td>1980</td>
</tr>
<tr>
<td>Sociology (SOCIOL)</td>
<td>1981</td>
</tr>
<tr>
<td>Spanish (SPANISH)</td>
<td>1985</td>
</tr>
<tr>
<td>Special Education (EDUC-SP)</td>
<td>1988</td>
</tr>
<tr>
<td>Statistics (STAT)</td>
<td>1988</td>
</tr>
<tr>
<td>String Bass (STR-BASS)</td>
<td>1988</td>
</tr>
<tr>
<td>Teacher Education (TCH-ED)</td>
<td>1989</td>
</tr>
<tr>
<td>Theatre (THEATRE)</td>
<td>1999</td>
</tr>
<tr>
<td>Trombone (TROMB)</td>
<td>2002</td>
</tr>
<tr>
<td>Trumpet (TRUMPET)</td>
<td>2003</td>
</tr>
<tr>
<td>Tuba (TUBA)</td>
<td>2003</td>
</tr>
<tr>
<td>University College (UNIV)</td>
<td>2004</td>
</tr>
<tr>
<td>Urban Planning and Design (UPD)</td>
<td>2004</td>
</tr>
<tr>
<td>Urban Studies (URBAN ST)</td>
<td>2006</td>
</tr>
<tr>
<td>Viola (VIOLA)</td>
<td>2007</td>
</tr>
<tr>
<td>Violin (VIOLIN)</td>
<td>2007</td>
</tr>
<tr>
<td>Voice (VOICE)</td>
<td>2008</td>
</tr>
<tr>
<td>Women's, Gender and Sexuality Studies (WGS)</td>
<td>2008</td>
</tr>
<tr>
<td>Graduate Course Offerings</td>
<td>2009</td>
</tr>
<tr>
<td>Accounting (ACCTNG)</td>
<td>2009</td>
</tr>
<tr>
<td>Anesthesia (ANESTH)</td>
<td>2012</td>
</tr>
<tr>
<td>Art (ART)</td>
<td>2016</td>
</tr>
<tr>
<td>Art History (ART-HIST)</td>
<td>2016</td>
</tr>
<tr>
<td>Arts &amp; Sciences - General (A&amp;S)</td>
<td>2018</td>
</tr>
<tr>
<td>Basic Medical Science (BMS)</td>
<td>2019</td>
</tr>
<tr>
<td>Bassoon (BASSOON)</td>
<td>2020</td>
</tr>
<tr>
<td>Biological Sciences (BIO-SCI) - Oral &amp; Craniofacial Sciences</td>
<td>2020</td>
</tr>
<tr>
<td>Biology (BIOLOGY)</td>
<td>2022</td>
</tr>
<tr>
<td>Black Studies (BLKS)</td>
<td>2023</td>
</tr>
<tr>
<td>Cello (CELLO)</td>
<td>2025</td>
</tr>
<tr>
<td>Field</td>
<td>Code</td>
</tr>
<tr>
<td>-------------------------------------------</td>
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<td>Computer Science &amp; Electrical Engineering (CSEE)</td>
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<td>Computer Science (COMP-SCI)</td>
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<td>Counseling Psychology and Counselor Education (CPCE)</td>
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<td>Curriculum and Instruction (EDUC-C&amp;I)</td>
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<td>Decision Science and Operations Management (DSOM)</td>
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<tr>
<td>Dentistry Professional (DENT)</td>
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</tr>
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<td>Economics (ECON)</td>
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<tr>
<td>Education (EDUC)</td>
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<td>Electrical and Computer Engineering (E&amp;C-ENGR)</td>
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<td>Endodontics (ENDO)</td>
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</tr>
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<td>English Language &amp; Literature (ENGLISH)</td>
<td>2084</td>
</tr>
<tr>
<td>Entrepreneurship (ENT)</td>
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<tr>
<td>Environmental Sciences (ENV-SCI)</td>
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</tr>
<tr>
<td>Euphonium (EUPHNM)</td>
<td>2093</td>
</tr>
<tr>
<td>Finance (FIN)</td>
<td>2094</td>
</tr>
<tr>
<td>Flute (FLUTE)</td>
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<td>Foreign Language (FRN-LNG)</td>
<td>2098</td>
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<td>General Practice (G-PRAC)</td>
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<tr>
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<td>2101</td>
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<tr>
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<td>2103</td>
</tr>
<tr>
<td>Guitar (GUITAR)</td>
<td>2106</td>
</tr>
<tr>
<td>Harpsichord (HRPCHD)</td>
<td>2106</td>
</tr>
<tr>
<td>Health Administration (HLTH-ADM)</td>
<td>2107</td>
</tr>
<tr>
<td>Health Professions Education (HPRE)</td>
<td>2108</td>
</tr>
<tr>
<td>History (HISTORY)</td>
<td>2109</td>
</tr>
<tr>
<td>Horn (HORN)</td>
<td>2115</td>
</tr>
<tr>
<td>Humanities (HMNTY)</td>
<td>2115</td>
</tr>
<tr>
<td>Law (LAW)</td>
<td>2115</td>
</tr>
<tr>
<td>Life Sciences (LIFE-SCI)</td>
<td>2138</td>
</tr>
<tr>
<td>Life Sciences - Cell Biology and Biophysics (LS-CBB)</td>
<td>2138</td>
</tr>
<tr>
<td>Life Sciences - Molecular Biology and Biochemistry (LS-MBB)</td>
<td>2140</td>
</tr>
<tr>
<td>Management (MGT)</td>
<td>2141</td>
</tr>
<tr>
<td>Management Information Systems (MIS)</td>
<td>2144</td>
</tr>
<tr>
<td>Marketing (MKT)</td>
<td>2145</td>
</tr>
</tbody>
</table>
Mathematics (MATH) ................................................................................................................................................................................................. 2147
Mechanical Engineering (MEC-ENGR) ........................................................................................................................................................................ 2148
Medical Bioinformatics (MEDB) ............................................................................................................................................................................ 2153
Medicine (MEDICINE) .................................................................................................................................................................................................. 2155
Nursing (NURSE) ........................................................................................................................................................................................................... 2160
Oboe (OBOE) ........................................................................................................................................................................................................ 2178
Oral & Craniofacial Sciences (OR-BIO) ........................................................................................................................................................................ 2178
Oral Surgery (OR-SURG) ............................................................................................................................................................................................ 2178
Organ (ORGAN) ........................................................................................................................................................................................................ 2180
Orthodontics (ORTHOD) ................................................................................................................................................................................................ 2180
Percussion (PERCSN) ..................................................................................................................................................................................................... 2181
Periodontics (PERIO) ...................................................................................................................................................................................................... 2181
Pharmacy (PHARM) .................................................................................................................................................................................................. 2183
Philosophy (PHILOS) ................................................................................................................................................................................................. 2195
Physical Education (PHYS-ED) .................................................................................................................................................................................... 2196
Physician Assistant Program (MEDPA) ........................................................................................................................................................................ 2196
Physics (PHYSICS) ....................................................................................................................................................................................................... 2200
Piano (PIANO) .............................................................................................................................................................................................................. 2201
Political Science (POL-SCI) .......................................................................................................................................................................................... 2202
Psychology (PSYCH) .................................................................................................................................................................................................. 2203
Public Administration (PUB-ADM) ............................................................................................................................................................................ 2207
Reading (EDRD) ............................................................................................................................................................................................................ 2211
Real Estate (RL-EST) ...................................................................................................................................................................................................... 2212
Religious Studies (RELIG-ST) ..................................................................................................................................................................................... 2214
Research and Psychology (EDUC-R&P) ......................................................................................................................................................................... 2216
Research Methodology - Dentistry (RES-ME) ................................................................................................................................................................. 2218
Saxophone (SAXOPH) .................................................................................................................................................................................................... 2219
School of Graduate Studies (SGS) ................................................................................................................................................................................... 2219
Social Sciences (SOC-SCI) ......................................................................................................................................................................................... 2220
Social Work (SOC-WK) .................................................................................................................................................................................................. 2220
Sociology (SOCIOL) ..................................................................................................................................................................................................... 2224
Spanish (SPANISH) ..................................................................................................................................................................................................... 2225
Special Education (EDUC-SP) ...................................................................................................................................................................................... 2227
Statistics (STAT) .............................................................................................................................................................................................................. 2229
String Bass (STR-BASS) .................................................................................................................................................................................................. 2230
Teacher Education (TCH-ED) .................................................................................................................................................................................... 2230
Theatre (THEATRE) .................................................................................................................................................................................................... 2235
Trombone (TROMB) ....................................................................................................................................................... 2241
Trumpet (TRUMPET) .................................................................................................................................................................................................. 2241
Tuba (TUBA) ........................................................................................................................................................................................................... 2242
Urban Leadership (EDUC-UL) ...................................................................................................................................................................................... 2242
Urban Planning and Design (UPD) ................................................................................................................................................................................ 2247
INTRODUCTION

University of Missouri - Kansas City (UMKC)

General undergraduate academic rules and regulations and graduate academic regulations and information apply to all undergraduate and graduate programs, respectively.

Prospective students should be aware that the University reserves the right to make changes in admission requirements, fees and other specifications in the catalog.

The web site address for the UMKC catalog is http://umkc.edu/catalog.

The UMKC catalog is the official record of degree program requirements. Students are expected to become thoroughly familiar with all academic regulations and requirements of this catalog pertaining to their program of study and to comply with its provisions.

The University of Missouri-Kansas City (UMKC) is one of four campuses that constitute the University of Missouri (http://www.umsystem.edu/ums/about). Established in Columbia in 1839 on the ideals of Thomas Jefferson, the University of Missouri became a land-grant institution upon passage of the Morrill Act by Congress in 1862.

The University is governed by the Board of Curators (http://www.umsystem.edu/curators), whose members are appointed by the governor of Missouri and confirmed by the Missouri Senate. The University president (http://www.umsystem.edu/president) directs and coordinates the programs of the four campuses, with staff assistance in finance, business management, research, extension, development, public information and other UM system services.

The activities of each campus are supervised by a chancellor, who directs campus affairs within policies established by the Board of Curators and the president.

UMKC Statement of Values (https://www.umkc.edu/chancellor/documents/UMKC-Values-Statement.pdf)

UMKC Administrative Divisions and Offices (http://www.umkc.edu/administration)

UMKC History (http://www.umkc.edu/history)

UMKC Strategic Plan (http://www.umkc.edu/provost/strategic-plan)

Accreditation

“Accreditation” is the primary means of assuring and improving the quality of higher education institutions and programs in the United States. Active for the past 100 years, this private, voluntary system of self-examination and peer review has been central to the creation of a U.S. higher education enterprise that is outstanding in many respects.

— Council for Higher Education Accreditation

The University of Missouri - Kansas City is accredited by The Higher Learning Commission, a regional accreditation agency recognized by the U.S. Department of Education.

The Higher Learning Commission

230 South LaSalle Street, Suite 7-500, Chicago, IL 60604

(800) 621-7440

http://www.hlcommission.org

The Higher Learning Commission accredits UMKC as a whole. Specific undergraduate, graduate, and professional programs, are also accredited by other programmatic accrediting agencies. The accredited programs and their accrediting agencies are identified in the applicable academic unit and/or program information sections of the catalog.

Mission

Mission statement

UMKC’s mission is to lead in life and health sciences; to deepen and expand strength in the visual and performing arts; to develop a professional workforce and collaborate in urban issues and education; and to create a vibrant learning and campus life experience.
**Goal 1. Place student success at the center**

To provide the optimal learning environment for all students: outstanding academic programs and experiences, seamless student support and a vibrant campus community.

- Challenge all undergraduate, graduate, and professional students to the highest levels of achievement by providing excellent academic programs.
- Engage and retain students by providing “high-impact” educational practices, such as first-year and capstone seminars, undergraduate research, study abroad and internships.
- Empower all students to contribute to a demographically and technologically complex world.
- Offer superior services to students through a model that allows a one-stop approach (real and virtual) to meet students’ needs.
- Support student success with new, proactive intervention systems and programs.
- Provide on-campus, co-curricular experiences that encourage student engagement and community participation.

**Goal 2. Lead in life and health sciences**

To attain national recognition for excellence in research, expand opportunities for clinical practitioner training and provide outstanding health care delivery.

- Become an essential partner with other members of the Kansas City area life and health sciences community.
- Establish a unified strategic approach to the UMKC life and health sciences research mission emphasizing translational research.
- Implement innovative life and health sciences graduate, doctoral, professional and interprofessional education initiatives.
- Expand clinical practice initiatives and research opportunities that address community health needs.
- Enhance collaborative and cross-disciplinary research and educational programs both within the science and engineering communities, and across disciplines.

**Goal 3. Advance urban engagement**

To become a model urban university by fully engaging with the Kansas City community to enhance education, public health, the arts and economic development.

- Expand relationships in the Kansas City area to ensure that UMKC is embedded in the fabric of the community and that the community is embedded in the University.
- Facilitate the exchange of the rich intellectual and cultural assets of UMKC and of the Kansas City community.
- Strengthen the PK-20 educational pipeline through strategic alliances with area school districts and community colleges.
- Promote environmental responsibility by integrating sustainability into the curriculum, research and institutional practices.

**Goal 4. Excel in the visual and performing arts**

To create excellent programs in visual and performing arts that are central to campus life and support Kansas City’s initiatives in entrepreneurship, urban education and innovation.

- Enhance UMKC’s reputation as a national leader in artistic excellence.
- Enhance all students’ education through infusing the arts into campus life.
- Collaborate with local and regional partners to provide community arts programming and experiences.
- Demonstrate the relationships between artistic creativity, entrepreneurial innovation and economic development.

**Goal 5. Embrace diversity**

To celebrate diversity in all aspects of university life, creating inclusive environments, culturally competent citizens, and globally-oriented curricula and programs.

- Cultivate an environment committed to civility and respect where all students, faculty and staff are empowered to pursue their personal, academic and professional goals.
- Provide a diverse learning and life experience to create culturally competent citizens.
- Recruit and retain a diverse campus community.
- Ensure diversity initiatives are actively reviewed and owned by the University community.

**Goal 6. Promote research and economic development**

To produce world-class scholarship and creative activity, encourage entrepreneurship, foster innovation, increase technology transfer, and build relationships that create economic and workforce development.

- Expand opportunities for extraordinary scholarship and creative activity.
- Create cross-disciplinary programs, at all levels, and align with strong community partnerships that support research, innovation and economic development.
- Strengthen workforce development programs to address current and future market needs.
- Encourage innovation within science and technology communities to increase technology transfer.
### ACADEMIC PROGRAMS

Fields of study are listed in the first column. The actual undergraduate and graduate degrees or certificates to be earned are listed to the right of each field of study. Degrees, emphasis areas, and minors will appear on students’ official transcripts.

<table>
<thead>
<tr>
<th>Degree Programs (emphasis)</th>
<th>College</th>
<th>Undergraduate</th>
<th>Graduate</th>
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</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>Management</td>
<td>BS (p. 1463)</td>
<td>MS (p. 1484)</td>
</tr>
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<td>Acute Pediatric Care Nurse Practitioner</td>
<td>Nursing &amp; Health Studies</td>
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<td>Dentistry</td>
<td></td>
<td>GRCT (p. 944)</td>
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<td>Anesthesia</td>
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<td>MS (p. 1528)</td>
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<td>Anthropology</td>
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<td>MA (p. 81), (i)PhD (p. 1240)</td>
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<td>Artist’s Certificate</td>
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<td>GRCT (p. 88)</td>
</tr>
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<td>Bioethics and Medical Humanities</td>
<td>Arts &amp; Sciences</td>
<td>Minor (p. 483)</td>
<td></td>
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<td>Biological Sciences</td>
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<td>MA (p. 711)</td>
</tr>
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<td>Medicine</td>
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<td>(i)PhD (p. 1242)</td>
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<td>Black Studies</td>
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<td>Minor (p. 103)</td>
<td>GRCT (p. 99)</td>
</tr>
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<td>Business Administration</td>
<td>Management</td>
<td>Minor (p. 1468), BBA* (p. 1457)</td>
<td>MBA* (p. 1474)</td>
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<td>Cell Biology and Biophysics</td>
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<td>Minor (p. 133), BA (p. 115), BS (p. 125)</td>
<td>MS* (p. 129), (i)PhD (p. 1247)</td>
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<td>Computing &amp; Engineering</td>
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<td>MS (p. 804)</td>
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<td>Classical and Ancient Studies</td>
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<td>Minor (p. 143)</td>
<td></td>
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<td>Clinical Research</td>
<td>Medicine</td>
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<tr>
<td>College Teaching and Career Preparation</td>
<td>Graduate Studies</td>
<td></td>
<td>GRCT (p. 1223)</td>
</tr>
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<td>Communication Studies</td>
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<td>MS* (p. 871), (i)PhD (p. 1250)</td>
</tr>
<tr>
<td>Conducting</td>
<td>Conservatory</td>
<td>MM (p. 1654), DMA (p. 1643)</td>
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<td>Education</td>
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<td>Education</td>
<td>PhD (p. 1142)</td>
<td></td>
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<td>Creative Writing and Media Arts</td>
<td>Arts &amp; Sciences</td>
<td>MFA* (p. 282)</td>
<td></td>
</tr>
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<td>Arts &amp; Sciences</td>
<td>Minor (p. 193), BA (p. 187)</td>
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</tr>
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<td>Curriculum and Instruction</td>
<td>Education</td>
<td>MA* (p. 1157), EDSP* (p. 1152), (i)PhD (p. 1256)</td>
<td></td>
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<tr>
<td>Dance</td>
<td>Music &amp; Dance</td>
<td>BFA (p. 1595)</td>
<td></td>
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<td>BS (p. 961)</td>
<td></td>
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<td>Dental Hygiene Education</td>
<td>Dentistry</td>
<td>MS* (p. 977)</td>
<td></td>
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<td>Dentistry</td>
<td>Dentistry</td>
<td>DDS (p. 991)</td>
<td></td>
</tr>
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<td>Early Childhood Education</td>
<td>Education</td>
<td>BA (p. 1081)</td>
<td></td>
</tr>
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<td>Economics</td>
<td>Arts &amp; Sciences</td>
<td>Minor (p. 216), BA* (p. 206)</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>Education</td>
<td>MA (p. 218), (i)PhD (p. 1258)</td>
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<td>Educational Administration</td>
<td>Education</td>
<td>EdD (p. 1170)</td>
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<td>Educational Leadership, Policies and Foundations</td>
<td>Education</td>
<td>MA* (p. 1176), EDSP* (p. 1173)</td>
<td></td>
</tr>
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<td>Electrical Engineering</td>
<td>Computing &amp; Engineering</td>
<td>MS (p. 877)</td>
<td></td>
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<td>Electrical and Computer Engineering</td>
<td>Computing &amp; Engineering</td>
<td>(i)PhD (p. 1262)</td>
<td></td>
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<td>Elementary Education</td>
<td>Education</td>
<td>BA (p. 1085)</td>
<td></td>
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<td>Endodontics</td>
<td>Dentistry</td>
<td>GRCT (p. 946)</td>
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<td>Computing &amp; Engineering</td>
<td>(i)PhD (p. 1268)</td>
<td></td>
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<td>Engineering and Construction Project Management</td>
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<td>GRCT (p. 803)</td>
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<td>English (Classical, Medieval, and Early Modern Literature; Creative Writing; Language and Rhetoric)</td>
<td>Arts &amp; Sciences</td>
<td>BA* (p. 246)</td>
<td></td>
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<tr>
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<td>Arts &amp; Sciences</td>
<td>MA* (p. 277), (i)PhD (p. 1270)</td>
<td></td>
</tr>
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<td>English Language &amp; Literature</td>
<td>Arts &amp; Sciences</td>
<td>Minor (p. 269)</td>
<td></td>
</tr>
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<td>English Manuscript, Print Culture, and Editing</td>
<td>Arts &amp; Sciences</td>
<td>Minor (p. 272)</td>
<td></td>
</tr>
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<td>English Writing</td>
<td>Arts &amp; Sciences</td>
<td>Minor (p. 274)</td>
<td></td>
</tr>
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<td>Entrepreneurial Real Estate</td>
<td>Management</td>
<td>Minor (p. 276)</td>
<td></td>
</tr>
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<td>Entrepreneurial and Innovation</td>
<td>Management</td>
<td>MS (p. 1486)</td>
<td></td>
</tr>
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<td>Arts &amp; Sciences</td>
<td>BS (p. 356)</td>
<td></td>
</tr>
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<td>Arts &amp; Sciences</td>
<td>Minor (p. 361), BA (p. 300)</td>
<td></td>
</tr>
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<td>Environmental Sustainability</td>
<td>Arts &amp; Sciences</td>
<td>Minor (p. 363)</td>
<td></td>
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<td>Environmental and Urban Geosciences</td>
<td>Arts &amp; Sciences</td>
<td>MS (p. 381)</td>
<td></td>
</tr>
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<td>Minor (p. 303)</td>
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<td>BA (p. 173)</td>
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<td>MS (p. 1488)</td>
<td></td>
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<td>Arts &amp; Sciences</td>
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<td></td>
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<td>UGCRT (p. 379)</td>
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<td>(i)PhD (p. 1274)</td>
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<td>Healing and Humanities</td>
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<td>Information Technology</td>
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<td>Interdisciplinary Leadership in Disability Studies</td>
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<td>Mathematics &amp; Statistics</td>
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<td>BSME (p. 806) MS (p. 811)</td>
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<td>Music Composition</td>
<td>Music &amp; Dance</td>
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<td>Nonprofit Management &amp; Innovation</td>
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<td>Oral &amp; Craniofacial Sciences</td>
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<td>MS (p. 987), (i)PhD (p. 1288)</td>
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<td>Performance</td>
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<td>Romance Language and Literature</td>
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<td>Social Science Consortium</td>
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<td>Studio Art</td>
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<td>Taxation</td>
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<td>Teaching</td>
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<td>Telecommunications &amp; Computer Networking</td>
<td>Computing &amp; Engineering</td>
<td>(i)PhD (p. 1305)</td>
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<td>Theatre: Acting &amp; Directing</td>
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<td>Theatre: Design &amp; Technology</td>
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<td>MFA* (p. 615)</td>
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<td>Urban Affairs</td>
<td>Law</td>
<td>MFA* (p. 616)</td>
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<td>Women's &amp; Gender Studies</td>
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<td>Women's Health Nurse Practitioner</td>
<td>Nursing &amp; Health Studies</td>
<td>Post-MSN GRCT (p. 1735)</td>
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</tbody>
</table>

* Indicates degrees with emphasis areas.

(i)PhD Disciplines that participate in the Interdisciplinary Ph.D. program.
COLLEGES & SCHOOLS

UMKC Volker Campus
College of Arts & Sciences (p. 30)
Conservatory of Music & Dance (p. 1539)
Henry W. Bloch School of Management (p. 1411)
Honors College (p. 1307)
School of Biological Sciences (p. 647)
School of Computing & Engineering (p. 713)
School of Education (p. 1018)
School of Law (p. 1315)
School of Graduate Studies (p. 1185)
University College (p. 1778)

UMKC Health Sciences Campus
School of Dentistry (p. 884)
School of Medicine (p. 1494)
School of Nursing & Health Studies (p. 1665)
School of Pharmacy (p. 1740)
College of Arts and Sciences

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Kansas City, MO 64110-2499
(816) 235-1136
Fax: (816) 235-5191
college@umkc.edu
http://cas.umkc.edu/

Dean:
Wayne Vaught

Associate Deans:
John Herron
Jennifer Lundgren
Kati Toivanen

Statement of Purpose

The primary academic missions of the College of Arts and Sciences are teaching, research and service. Through these functions, the College serves the community, the state and society at large. The research and scholarship of the College's faculty not only expand the body of knowledge generally, but also enrich and enhance its teaching and instructional programs.

Most departments of the College offer both undergraduate and graduate study. The College enables students to develop the creative, analytical and communication skills which sustain a lifelong educational process. In addition to serving its own students, the College provides instruction in the liberal arts and sciences for students in the UMKC professional schools. Through its continuing education division and certificate programs, the College also serves individuals and groups in the community.

The College's degree requirements, in coordination with the UMKC general education core, give students a breadth of knowledge, enabling them to understand and appreciate the many facets of human experience, to make meaningful relationships between the various fields of knowledge, and to increase their understanding of themselves, their interests and special abilities. The general requirements and introductory courses allow for maximum freedom in selection of a field of study and provide the basic knowledge for that particular program.

Work in a field of study provides students with a comprehensive and systematic introduction that prepares them to function in the professional fields of their choice. The objective of the total academic program of the College is to engage students in study that will enable them to work competently in their chosen fields or pursue graduate work, while at the same time developing a breadth of knowledge in the arts and sciences. In that way, students can understand their specializations in the larger context of the intellectual and social life of the community.

Graduate-level studies provide students with advanced instruction and/or independent research in a major field of study. Students pursuing master's-level work in a major field or a Ph.D. in Clinical Psychology are directed to the relevant department or program listing in the Arts and Sciences section of this catalog and to the General Graduate Academic Regulations and Information section of this catalog. Those planning other Ph.D.-level studies are directed to UMKC's Interdisciplinary Ph.D. program listing in the School of Graduate Studies section of this catalog.

Arts Sciences Courses

A&S 100 Methodologies In Liberal Arts & Sciences: Theories & Application Credits: 3
This three hour course is designed for freshmen and transfer students, to be taken during their first semester of study at UMKC. The curriculum provides students an introduction to the major disciplines and methodologies of the liberal arts and sciences (the humanities, social sciences, and sciences), including sessions on choosing majors and careers. Additional emphases will include learning to use the library, writing and computational skills, oral presentations, cultural diversity, stress management, and study strategies.

A&S 115 Career Possibilities Credit: 1
This course introduces career development as a complex process of self-assessment and decision-making. Students analyze their personal interests, motivation, conduct self-assessment, identify their personal values, and discuss ethical considerations as they relate to possible career choices. Visiting professionals will provide insight into career options as students explore possible career paths.

A&S 210 Cross-Cultural Interaction: Experience and Understanding Credits: 3
This course focuses on the social and cultural context of interactional patterns. U.S. and international students are paired in academic activities to encourage mutual understanding and self-awareness. They will draw on a variety of resources and learning modalities to examine aspects of their own and one another's societies, cultures, religions, and family relations. Making use of intercultural theories, students will reflect upon and explore cultural myths and stereotypes and develop a general understanding of cultural similarities and differences.
A&S 215 Career Explorations Credit: 1
The primary focus of this course is to complete an in-depth self-assessment and the generation of personalized list of career paths. Personal values will inform these possibilities, which are then explored through job shadowing, informational interviews, visiting lecturers, and independent career research. Ethical considerations of chosen career paths are explored. Students reflect on the professional experiences of others and relate them to their own personal values.

Prerequisites: A&S 115.

A&S 310 Cross-Cultural Interaction II: Social Relations Credits: 3
This course will match international students with U.S. students to prepare them to interact more effectively in multilingual and/or intercultural settings. Students learn through readings on cultural theory and cultural relations, in-class small group activities, discussions and lectures, how issues of identity, such as age, sexual orientation, and ethnicity; impact cross-cultural interaction. Papers written for this course will help students integrate theory with previous experience, leading to an understanding of oppression in cross-cultural interaction.

Prerequisites: A&S 210.

A&S 315 Career Methods Credit: 1
In this course students begin to map out the realization of their career paths. They analyze their career choices, how these choices inform their life plans, articulate the ethical and moral requirements of these careers, and understand how their personal values and strengths match these requirements. Independent career research and entry preparation along with job shadowing, informational interviews, mock interviews, and other preparations required for the selected career choices are included in this class.

Prerequisites: A&S 215.

A&S 341 Union Leadership and Administration Credits: 3
This course focuses on the roles and challenges of union leadership in a changing environment. Topics include the union leaders’ role as a representative, organizer and educator as well as administrative responsibilities within the union and the relationship with enterprise management in both adversarial and participatory situations. Options for leadership styles and organizational models will be discussed and explored in both theory and practice. Leaders will develop their skills of motivation, speaking, strategic planning and managing complex campaigns and diverse organizations. This course is part of the Certificate Program in Labor Studies and is offered on the University of Missouri Interactive Video Network at UMKC, UMSL, and UMC.

A&S 350 Special Topics Credits: 1-4
An undergraduate course designed to deal with a topic which is not available in the regular course offerings.

A&S 350A Special Topics Credits: 1-4
An undergraduate course designed to deal with a topic which is not available in the regular course offerings.

A&S 350B Special Topics Credits: 1-4
An undergraduate course designed to deal with a topic which is not available in the regular course offerings.

A&S 350H Special Topics Credits: 1-4
An undergraduate course designed to deal with a topic which is not available in the regular course offerings.

A&S 350R Special Topics Credits: 1-4
An undergraduate course designed to deal with a topic which is not available in the regular course offerings.

A&S 350 Special Topics Credits: 1-4
An undergraduate course designed to deal with a topic which is not available in the regular course offerings.

A&S 350PD Special Readings/Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings.

A&S 365P Introduction To Substance Abuse Counseling: Theory And Practice Credits: 3
This course will introduce the student to the problems of substance abuse and the methods/techniques used in treatment. The course will explore theories of personality and belief systems of the chemically dependent or alcoholic individual. The course will also review the impact of the disease on the family system.

A&S 400 Special Readings/Topics Credits: 1-6
A&S 400B Special Readings/Topics Credits: 1-6
A&S 400E Special Readings/Topics Credits: 1-6
A&S 400G Special Readings/Topics Credits: 1-3
A&S 400H Special Readings/Topics Credits: 1-3
A&S 400PD Special Readings/Topics Credits: 1-6
A&S 400RR Special Readings/Topics Credits: 1-3
A&S 400SA Special Readings/Topics Credits: 1-6
A&S 400SB Special Readings/Topics Credits: 1-3
A&S 400SS Special Readings/Topics Credits: 1-3
A&S 415 The Aging Body: Causes and Consequences Credits: 3
This course will explore biological changes that occur with aging. Plasticity, frailty, stress, coping, and chronic illness will be viewed through the biopsychosocial lens. Biomedical discoveries and implications for the future of aging will be discussed.
A&S 490 Special Topics Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor. By permission only.

A&S 490B Special Topics Credits: 1-3

A&S 490PB Special Topics Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor.

A&S 490S Special Topics Credits: 1-3

A&S 490SA Special Topics Credits: 1-3

A&S 490SB Special Topics Credits: 1-3

A&S 490W Special Topics Credits: 1-3

A&S 492 Field Practicum In Aging Credits: 3-8
Students spend 180-480 contact hours in a field placement with supervision in a community agency or organization which services or advocates for older persons, and keep a journal documenting and reflecting on the practicum activities and experiences particularly as they relate to gerontological theory and research.

A&S 5500 Interdisciplinary Colloquium On Aging Credits: 3
This course will introduce students to gerontology as a field of study and as a profession. The context for the emergence of the field is set in important demographic transitions of the 20th century. Identification and understanding of major issues and controversies in the field will help locate the contributions of a range of disciplines to aging studies. The connection of these issues with the development of social policies will be discussed.

A&S 5500C Interdisciplinary Colloquium On Aging III Credits: 1-2

A&S 5500L Special Readings Topics/Philosophy Credits: 1-3

A&S 5500P Special Topics-Readings Psychology Credits: 1-3

A&S 5500Q Special Readings/Topics Theatre Credits: 1-3

A&S 5501 Special Readings/Topics Credits: 1-3
This is a designated Arts and Sciences course which gives all departments in the College the flexibility to offer, on demand and as the need arises, a graduate-level readings course in a particular area of specialization in any discipline in the College. The individual departments determine the content of the course in any given semester in the same manner as any reading course, special topics, or independent study is presently handled. The departments are responsible for approving individuals or groups for the course and determine whether or not the course will be included as a part of a post-baccalaureate degree in their disciplines.

A&S 5501B Special Topics: Critical Thinking In Social Studies Credits: 1-3

A&S 5501D Special Readings/Topics Credits: 1-3

A&S 5501E Special Readings/Topics Credits: 1-3

A&S 5501K Special Topics Credits: 1-4

A&S 5502 Introduction To African American Studies Credits: 3
This course provides an introduction to the contexts, theories, and methodologies that undergird African American studies. In addition to substantial time spent covering particular research skills and resources, students will also be introduced to African American culture and the issues related to African studies from several perspectives: history, literature, sociology, communication studies, and the like. Influences and perspectives from Africa, the Caribbean, and South America will also be covered. The course will thus provide a broad background in African American culture and history, an introduction to the methodologies of several disciplines, and discussion of particular contemporary and historical issues such as slavery, segregation and integration, the Civil Rights Movement, Pan-Africanism, Afrocentrism, and current political debates.

A&S 5505 Career Education And Transition In Special Education Credits: 3
This course is designed to increase awareness and knowledge about current disabilities legislation, vocational education, vocational rehabilitation, quality transition programs, school to work, self advocacy, workplace accommodations and comprehensive life skills learning.

Prerequisites: EDUC-SP 407 (or equivalent).

A&S 5509 Methods Of Inq: Research Issues And Methods In The Liberal Arts Credits: 3
This course serves as an introduction to various methods of inquiry and research in the humanities, social sciences, and sciences. This course includes graduate level instruction in library research use of computer generated research tools and a strong emphasis on academic writing.

A&S 5515 The Aging Body: Causes and Consequences Credits: 3
This course will explore biological changes that occur with aging. Plasticity, frailty, stress, coping, and chronic illness will be viewed through the biopsychosocial lens. Biomedical discoveries and implications for the future of aging will be discussed.

A&S 5520 Critical Choices: Final Research Project And Capstone Seminar Credits: 3
This seminar is designed as a capstone experience for students in the last semester of their studies in the Master of Arts in Liberal Studies program. Each student defines a final research project, spends the semester developing it, and presents his or her findings to the seminar at the conclusion of the course. Each project is intended to be thought-provoking and to be researched from an interdisciplinary point of view.
A&S 5535 Directed Studies In Liberal Arts Credits: 1-3
Open to students in the Master of Arts in Liberal Studies Program, this course offers students the opportunity to pursue independent work at the graduate level on selected topics of an interdisciplinary nature, working with faculty members from at least two different departments. The course may not be repeated beyond a total of three credit hours.

A&S 5540 Liberal Arts Thesis Credits: 1-3
Open to students in the Masters of Arts in Liberal Studies Program who wish to include a written thesis in their program of studies. The course may not be repeated beyond a total of three credit hours.

A&S 5550 Seminar In Social Science Perspectives Study Of Community Credits: 3

A&S 5571A Seminar In The Social Sciences Credits: 1-6
This is a designated Arts and Sciences course which gives all departments in the College the flexibility to offer, on demand and as the need arises, a graduate level seminar in a particular area of specialization in any discipline in the college. The individual departments determine the content of the course in any given term in the same manner as any seminar is currently handled.

A&S 5572 Seminar In Philosophy Of Science I Credits: 3

A&S 5591 Practicum In Community Social Science Research Credits: 3

A&S 5592 Field Practicum In Aging Credits: 3-8
Students spend 180-480 hours in a field placement with the supervision in a community agency or organization which services or advocated for older persons and keep a journal documenting and reflecting on the practicum activities and experiences, particularly as related to gerontological theory and research. Students will study a particular subject relevant to their placement and describe this in a written project.

A&S 5899 Required Graduate Enrollment Credit: 1

Pace - Interdiscip Studies Courses

INT-DISC 380P People With Special Needs: Education Planning Credits: 4
This course will address educational and psychological assessment strategies that result in a diagnosis of disability. Various specific disabilities and legal parameters for public education of people with disabilities will be discussed. Students will learn how to read and understand various educational and psychological assessment reports and will become knowledgeable about how to access community supports and services to address special needs in an education setting. By the end of the course students will have created a personal notebook of educational planning and accommodations for use as a resource for parents, teachers, or students in educational settings.

INT-DISC 381P People With Special Needs: Career Exploration Credits: 4
This course will address the issues that arise in career exploration and planning for people with a disability diagnosis. Students will become familiar with the philosophy of community inclusion and will learn how to plan based upon the unique strengths and interest of the individual. Career exploration tools will be explored in class and as assigned, and students will create a personal notebook to be used as a resource tool of accommodation materials and aides.

INT-DISC 382P People With Special Needs: Disability Service Settings Credits: 4
Independent study course: Students will meet at specific times as a group with the instructor, will write a term paper, and complete a 20 hour practicum in a pre-approved disability service setting.

INT-DISC 482P The Meanings Of Masculinity In Contemporary U.S. Culture Credits: 4
Topics include: Perspectives on Masculinity; Boyhood; Collegiate Masculinities: Privilege and Peril; Men and Work; Men and Health: Body Mind; Men in Relationships; Male Sexualities; Men in Families; Masculinities in the Media; Men, Movements, and the Future. Small and large group discussions are anticipated in the classroom. Outside of the classroom, students will be expected to complete a series of assignments that are relevant to the topics at hand. This course would ideally incorporate UMKC faculty/staff and individuals/groups outside of the university who have completed research/work that seeks to understand men's lives better.

INT-DISC 483P Artful Man Embodied: Cultural Icons of Masculinity Credits: 4
This course will examine a variety of mediums used to "embody" meanings of masculinity (with special attention paid to shifting settings for one media source can alter its meaning drastically simple by being located in a different venue and/or time). This course will incorporate tours of, and works from, the Nelson-Atkins and Kemper Museums. Images by/of "men" to be examined include those found in the work of selected "masculine icon" authors; those found in popular culture; and those found in the everyday (seemingly mundane) worlds of family, work, and medicine. As the title of the course implies, students will explore historical ideas about bodies/embodiment (be they scientific, religious, social, etc.) into their image exploration.

Pace - Integrated Studies Courses

INTGR 200 Intermediate Pre-Hospital Life Support Credits: 4
This course is designed to increase the scope of practice for the Emergency Medical Technician who is considering becoming a paramedic. It encompasses EMS operations, and the management of various medical and trauma emergencies at the Intermediate level. Note: Admitted students in the UMKC Paramedic Program.
INTGR 200L Intermediate Pre-Hospital Life Support Laboratory Credits: 2
Laboratory applications for emergency medical science.
**Prerequisites:** Admitted student in the UMKC Emergency Medical Services Paramedic Program.

INTGR 201 Advanced Pre-Hospital Life Support I Credits: 4
This course encompasses EMS operations, as well as roles and responsibilities. Airway management, IV therapy, and management of various medical emergencies will be addressed. Students acquire the skills necessary to perform paramedic-level skills. These skills are practiced in the laboratory and clinical setting under close supervision.
**Prerequisites:** INTGR 200.

INTGR 202 Advanced Pre-Hospital Life Support II Credits: 4
This course encompasses the management of patients in the prehospital setting. Students acquire skills to perform interventions in the paramedic scope of practice. Skills are practiced in the laboratory and clinical settings under supervision, and during field internship with an ambulance provider.
Note: Admitted students in the UMKC Paramedic Program.
**Prerequisites:** INTGR 201.

Natural Science, General Courses

NAT-SCI 101P Changing Life On Earth Credits: 4
This course presents an overview of issues relating to our ever changing world. It is research oriented with papers required on topics dealing with behavior, environmental issues, and aspects of evolution.
**Co-requisites:** NAT-SCI 102P.

NAT-SCI 102P Fundamentals Of Life Science Credits: 4
This course emphasizes the essential properties of biological systems through four major themes: diversity, the chemical and physical basis of life, continuity, and the organismal nature of life.
**Co-requisites:** NAT-SCI 103P.

NAT-SCI 103P Applications Of Life Sciences Credits: 4
This course is designed to provide students with laboratory exercises, field trips, films and discussions that help apply biological principles from 102P. New concepts are introduced throughout the course.
**Co-requisites:** NAT-SCI 102P.

NAT-SCI 130 Physics of Sports Credits: 3
A course intended for liberal arts students focusing on the physics involved in different sports. Physical laws and technological developments that impact sports will be studied.

NAT-SCI 140 How Things Work Credits: 3
A course intended for liberal arts students focusing on the principles of operations, histories, and relationships of objects from our daily environment. The areas of investigation include mechanical and thermal objects, electromagnetism, light, special materials and nuclear energy.
**Co-requisites:** NAT-SCI 140L.

NAT-SCI 140L How Things Work Laboratory Credit: 1
Simple experiments based on everyday experiences are analyzed in terms of conceptual physics. The material includes elements of mechanics of a rigid body, elastic properties of matter, fluid dynamics, thermodynamics, electromagnetism, optics and modern physics.
**Co-requisites:** NAT-SCI 140.

**Cross Listings:** Physics 140L and Phy-Sci 140L.

NAT-SCI 150 Astronomy: Motions of the Cosmos Credits: 3
An introductory exploration of modern topics in astronomy with an emphasis on developing conceptual models for the fundamental laws of gravity and motion crucial to the formation of stars and planetary systems, the growth of black holes and galaxies, and the evolution of cosmic structure.

NAT-SCI 153L Introductory Astronomy Laboratory Credits: 2
An introductory exploration of astronomical phenomena and concepts through quantitative laboratory activities requiring data collection, analysis and interpretation. This course is open to students from all majors. Concurrent enrollment in either NAT-SCI 150 or NAT-SCI 155 is encouraged but not required.

NAT-SCI 155 Astronomy: Starlight and Star Stuff Credits: 3
An introductory exploration of modern topics in astronomy with an emphasis on developing conceptual models for the interactions between light and matter crucial to the life and death of stars, the analysis of starlight and interstellar chemistry, and the interpretation of cosmic history.

NAT-SCI 171 Physics For Future Presidents Credits: 3
A course intended for liberal arts students focusing on the physics they need to be informed citizens in a democracy. Energy, global warming, terrorism, and health are examples of the important topics examined from the perspective of how science should inform policy.
NAT-SCI 375P Nature Of Science Credits: 4
Selected topics from the natural sciences. Provides students fundamental principles and concepts of various physical and mathematical sciences. Lectures, demonstrations and discussions provide an integrated approach to the natural sciences.

NAT-SCI 425P Introduction To Quantitative Methods Credits: 3
Topics addressed are the scientific approach to study of behavior (goals of science, research terminology, variables, distributions, measures of central tendency, confidence intervals, use of research methods and ethics in research), experimental design (validity, reliability, design and sampling techniques), and interpretation of research results. Course includes in-class computer data entry and analysis.

Prerequisites: COMP-SCI 101 and MATH 110 or MATH 116

Physical Science Courses

PHY-SCI 110 Foundations Of Physical Sciences I Credits: 4
Fundamental principles and concepts of the various physical and mathematical sciences, integrated by the history and philosophy of science.

PHY-SCI 110L Foundations Of Physical Sciences, Laboratory I Credit: 1
General laboratory and discussion sessions on various topics in the physical and mathematical sciences.

PHY-SCI 130 Physics of Sports Credits: 3
A course intended for liberal arts students focusing on the physics involved in different sports. Physical laws and technological developments that impact sports will be studied.

PHY-SCI 140 How Things Work Credits: 3
A course intended for liberal arts students focusing on the principles of operations, histories, and relationships of objects from our daily environment. The areas of investigation include mechanical and thermal objects, electromagnetism, light, special materials and nuclear energy.

Co-requisites: PHY-SCI 140L

PHY-SCI 140L How Things Work Laboratory Credit: 1
Simple experiments based on everyday experiences are analyzed in terms of conceptual physics. The material includes elements of mechanics of a rigid body, elastic properties of matter, fluid dynamics, thermodynamics, electromagnetism, optics and modern physics.

Co-requisites: PHY-SCI 140

PHY-SCI 150 Astronomy: Motions of the Cosmos Credits: 3
An introductory exploration of modern topics in astronomy with an emphasis on developing conceptual models for the fundamental laws of gravity and motion crucial to the formation of stars and planetary systems, the growth of black holes and galaxies, and the evolution of cosmic structure.

PHY-SCI 153L Introductory Astronomy Laboratory Credits: 2
An introductory exploration of astronomical phenomena and concepts through quantitative laboratory activities requiring data collection, analysis and interpretation. This course is open to students from all majors. Concurrent enrollment in either PHY-SCI 150 or PHY-SCI 155 is encouraged but not required.

PHY-SCI 155 Astronomy: Starlight and Star Stuff Credits: 3
An introductory exploration of modern topics in astronomy with an emphasis on developing conceptual models for the interactions between light and matter crucial to the life and death of stars, the analysis of starlight and interstellar chemistry, and the interpretation of cosmic history.

PHY-SCI 171 Physics For Future Presidents Credits: 3
A course intended for liberal arts students focusing on the physics they need to be informed citizens in a democracy. Energy, global warming, terrorism, and health are examples of the important topics examined from the perspective of how science should inform policy.

PHY-SCI 410A Selected Topics In Contemporary Science Credits: 3
PHY-SCI 410B Selected Topics In Contemporary Science Credits: 3
PHY-SCI 410C Selected Topics In Contemporary Science Credits: 3
PHY-SCI 410P Selected Topics In Contemporary Science Credits: 3
Selected Topics In Contemporary Science

PHY-SCI 410PF Selected Topics In Contemporary Science Credits: 3
PHY-SCI 435 Selected Topics In The History Of Science Credits: 3
Selected Topics In The History Of Science
PHY-SCI 435P Selected Topics In The History Of Science Credits: 3
PHY-SCI 435PF Selected Topics In The History Of Science Credits: 3

Social Science Courses
SOC-SCI 301P Varieties - People and Society Credits: 4
This course will entail an intensive study of the sociocultural patterns in a selected nation. The discussions will focus on ethnic, racial and religious diversity in various national settings integrated with material in Soc Sci 303P.
Prerequisites: Block XVI or equivalent.

SOC-SCI 302P Power and Authority Credits: 4
This weeknight course is intended to deal with the issues of power and authority as they bear on people at the individual, family, social and political levels. The intent of the course is to discuss the issues of control, power, authority and the limits of obedience.

SOC-SCI 395C Economics Of Energy Credit: 1
See ECON 395C.

SOC-SCI 465P Human Resources In The Service Industry Credits: 4
This course will trace the historical development, and examine current policies and procedures of human resources in service organizations. Special emphasis will be placed on understanding the evolving importance of employees in developing systems to meet operational goals. Management and labor perspectives on legal employment issues, compensations issues, and team development strategies will be examined.

SOC-SCI 5610 Philosophy Of Social Science Credits: 3
This course examines the development of the philosophy of science since the end of the 19th century. In this regard, Positivism, Conventionalism, and Realism as the three major conceptions of science will be studied and their significance as philosophical foundations of the social sciences will be assessed. Particular attention will be given to the emerging philosophy of science (i.e., Scientific Realism) which has profoundly challenged the more established Positivism.

SOC-SCI 5621 Consensus Social Theory Credits: 3
This course explicates the connections between mainstream (or orthodox) approaches in the various social sciences, which can be collectively viewed as Capitalist interdisciplinary social theory. Explication entails positivist philosophy of science, classic liberal political philosophy, neo-classical economics, pluralist political science, human ecology and functionalist sociology.
Prerequisites: SOC-SCI 5610.

SOC-SCI 5622 Pragmatism & Evolutionary Social Theory Credits: 3
Drawing on the classical pragmatism of Peirce and Dewey as the philosophical framework for inquiry, and the institutional economics of Veblen, Commons, Mitchell, and Ayres, this course develops Evolutionary Social Theory as a paradigm for interdisciplinary social science.

SOC-SCI 5630 Seminar in Research Methodology Credits: 3
This course assists students with the establishment of a framework for their dissertation research that represents a substantive integration of their coordination discipline with the SSC program. The ultimate goal of the seminar is a defensible dissertation proposal for each student. Includes opportunity for participation by supervisory committee members.
Prerequisites: SOC-SCI 5610, SOC-SCI 5621, and 1 Critical Theory course.

SOC-SCI 5641 History of a Social Science Discipline Econ Credits: 3
The course examines the social and political development of economics that underpins the development of economic theory in the 20th century.
Prerequisites: SOC-SCI 5610.

SOC-SCI 5690 Special Doctoral Reading in Social Science Credits: 1-3
Special Research Topic in Interdisciplinary Social Science at The Doctoral Level
SOC-SCI 5690A Special Topics Credits: 1-3
SOC-SCI 5690B Special Topics Credits: 1-3
SOC-SCI 5690C Special Topics Credits: 1-3
SOC-SCI 5899 Required Graduate Enrollment Credit: 1
Departments and Programs
Department of Architecture, Urban Planning and Design

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Professor and Department Chair:
Joy D. Swallow, M.Arch., F.A.I.A.

Professor:
Clara Irazabal-Zurita, Ph.D.

Associate Professors:
Michael Frisch, Ph.D., A.I.C.P.; Sungyop Kim, Ph.D.; Jacob A. Wagner, Ph.D., A.I.C.P.

Assistant Professor:
Stephanie Frank, Ph.D.

Associate Teaching Professor:
John Eck, M.Arch., R.A.

Adjunct Faculty:
Ruben Alonso; Judi Bauer; Christopher Brewster, J.D., A.I.C.P.; Denise DiPiazza; Stephen Hardy, A.I.C.P.; Brian Jackson; Dominic Musso; Lance Owen Ph.D.; Ashley Winchell;

Joint Appointment:
Rochelle Ziskin, Ph.D., Art and Art History

Administrator:
Stella Szymanski

Participating Faculty:
Theodore H. Seligson, F.A.I.A.; Robert Cohon, Ph.D.,Art and Art History; Caroline P. Davies, Ph.D., Geosciences; Steve Driever, Ph.D., Geosciences; Wei Ji, Ph.D, Geosciences;

Department Description
The Department of Architecture, Urban Planning and Design has three degree programs to choose from.

One degree program is a B.A. in Urban Planning and Design. This degree program is a four-year degree and can be completed at UMKC in its entirety.

The second degree program leads to a degree in one of the following professional areas: architecture, landscape architecture and interior architecture. This track is a two-year program, offered in conjunction with Kansas State University's College of Architecture, Planning and Design.

The third degree program is a B.A. in Urban Studies. The urban studies program prepares students for careers dedicated to understanding the city and improving the life of urban societies. The program provides students with analytical skills vital to the study of the city and urban life. Working to fulfill UMKC's mission of urban engagement, the program and its students actively participate in community partnerships.

UMKC is an urban university, and architecture, urban planning and design is consistent with our vision for our community and region. Kansas City is a great urban laboratory. Few American cities have the planning and design tradition of Kansas City. We think this sets us apart, and places the students within a professional community with unmatched resources, whether one is studying architecture, interior architecture, landscape architecture or urban planning and design.

As the United States population continues to grow and is concentrated in metropolitan areas, urban planning and design is becoming a societal imperative. Planners address diverse public issues affecting where people live, work, and play; where they shop and receive health care; how they get from place to place; what our communities look like; and how we use our resources.
Admission and Advising

Admission to the Department of Architecture, Urban Planning and Design is selective. Seats are limited to 36 incoming students in the Architectural Studies curriculum. Interested students can call or email the department and schedule an appointment for a visit with one of our advisors.

Financial Aid

Many scholarships and student financial aid opportunities are available. Every year approximately 80 percent of our students have some form of scholarship. For students who qualify, UMKC can be a great resource for scholarship assistance. Contact the UMKC Financial Aid Office, phone: (816) 235-1154, website: http://www.umkc.edu/finaid for scholarship information.

Student Activities

The department supports two student organizations.

Planning and Design Students (PDS) is a student organization for students studying Urban Planning and Design. The students interact with the local APA (American Planning Association (http://www.planning.org)) chapter in a variety of activities. A group of students attend the national conventions that are held in various locations around the country every year.

The American Public Works Association (http://www.apwa.net) (APWA) is a student organization that consists of a multidisciplinary group (i.e. engineering, geosciences, public administration) from across the campus.

Faculty

John Eck  
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Clara Irazabal-Zurita  
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Joy D. Swallow  
Chair, Department of Architecture, Urban Planning and Design, and Professor of Architecture; B.Arch. (Kansas State University); M.Arch. (University of Pennsylvania); F.A.I.A.  Email: swallowj@umkc.edu, phone (816) 235-2998

Jacob A. Wagner  
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1 Members of UMKC Graduate Faculty
2 Members of UMKC Doctoral Faculty

Undergraduate

Undergraduate Degrees:

• Architectural Studies Major (p. 45)
• Bachelor of Arts in Urban Planning and Design (p. 48)
• Bachelor of Arts in Urban Studies (p. 52)
• Minor in Urban Studies (p. 58)

Graduate

Graduate Programs (p. 46)

• Graduate Certificate in Historic Preservation (p. 46)
Architectural Studies Courses

ENV-DSN 110 The Meaning Of Architecture Credits: 3
Architecture is a visual and physical expression of civilization. This course will introduce to the student an understanding and appreciation of architecture and our built environment through a broad examination of cultural and aesthetic paradigms. May not be taken for credit by students enrolled in the Architectural Studies curricula.

ENV-DSN 201 Environmental Design Studio I Credits: 4
Foundation studies introducing the principles, processes and vocabularies of environmental design. Instruction in two and three dimensional visualization of objects and spaces. Instruction in the use of instrument-aided drawing, freehand drawing and model building to represent and communicate design ideas at different scales of observation.

ENV-DSN 202 Environmental Design Studio II Credits: 4
Continuation of ENV-DSN 201.
Prerequisites: ENV-DSN 201.

ENV-DSN 203 Survey of the Design Professions Credit: 1
Overview of the design professions. Comparative study of the roles of the architect, interior architect, interior designer, landscape architect, and planner; their working methods, collaborative endeavors, and interaction with consultants and specialists. Description of career paths, educational alternatives, licensure, and professional organizations.

ENV-DSN 248 Fundamentals of Architectural Technology Credits: 3
Instruction in the fundamentals of architectural technology with emphasis on the concepts and principles necessary for developing an integrated approach to building design.

ENV-DSN 250 History of the Designed Environment I Credits: 3
This course will present an overview of the developments in architectural, urban, landscape and interior design which have had an impact on the physical environment from ancient times through the medieval up to the gothic period. A central objective of the course is to gain an understanding of why these developments occurred and how the needs and aspirations of a given time were manifested in physical form.

ENV-DSN 251 History of the Designed Environment II Credits: 3
This course will present an overview of the developments in architectural, urban, landscape and interior design which have had a consequential impact on the physical environment of the Western world from the Italian Renaissance (starting in the 15th century) up to the present day.

ENV-DSN 252 History of the Designed Environment III Credits: 3
The history of the designed environment from the mid-18th century to the present.

ENV-DSN 301 Architectural Design Studio I Credits: 5
Instruction in architectural design focusing on the application of elements and principles of form and space in design. Instruction in the use of techniques for visually representing design ideas.
Prerequisites: ENV-DSN 202.

ENV-DSN 302 Architectural Design Studio II Credits: 5
Instruction in architectural design focusing on the synthesis of basic social, functional, technical, and aesthetic factors in design. Continued instruction in techniques for visually representing ideas.
Prerequisites: ENV-DSN 301.

ENV-DSN 347 Structural Systems in Architecture I Credits: 4
Introduction to structure as a building system. Overview of contemporary structural systems and heir components, including wood, timber, steel, concrete, masonry, and hybrid structures. Discussion of building code requirements for structure, general guidelines for building structures, including appropriate application, and methods for schematic estimation of structural member sizing. Basic understanding of how gravity and lateral forces are propagated through a structural frame from load to building foundation.
Prerequisites: MATH 110, PHYSICS 210.

ENV-DSN 433 Building Construction Systems in Architecture I Credits: 3
In this lecture course, students develop an understanding of how materials and systems assembly reinforce and extend the intentions of the designer as well as an understanding of the strategies and techniques for integration and coordination of the building components.
Prerequisites: ENV-DSN 248.

Urban Planning Design Courses

UPD 203 GIS For Urban Planning Credits: 3
This introductory level GIS course is designed to expose planning students to Geographical Information Systems (GIS). Students will learn basic concepts and theories of GIS and applications of GIS software with hands-on experience. Students will also learn how to search for demographic, socio-economic, land use, transportation, and geospatial data, and how to use such data for their academic research and professional planning work with GIS. Students will apply GIS to the multiple scales of planning work.
UPD 260 History Of Planning And Urban Design Credits: 3
An overview of planning history with an emphasis on the 19th and 20th centuries. The historic framework will include urban history, the rise and development of urban planning, urban design, and social theory and how these areas have affected the shape of our cities.

UPD 280 Land Use Planning Credits: 3
This course explores the basic principles of plan making, land use development and regulation. Students are introduced to contemporary planning and policy issues. Including land use conflicts and alternative models for sustainable planning, design and management. Students will learn how to develop a land use plan using Geographic Information Systems (GIS) and other design tools. An introductory GIS course (UPD 203) is highly recommended.

UPD 300 Quantitative Planning Methods And Techniques Credits: 3
Statistical analysis and other analytic techniques of data gathering. Data and problems framed from complex, real world situations. Competence in firsthand research; survey design; case study method; data gathering methods such as observation, open-ended interviewing and questionnaires.

UPD 310 Planning And Design Studio I Credits: 4
This Urban Planning + Design studio course will introduce methods for analyzing urban spaces at the site and neighborhood level. Students will actively solve problems related to the physical planning of cities and communities while continuing to develop abilities in methods of written, oral and graphic presentation.

Prerequisites: ENV-DSN 201 and ENV-DSN 202 with a grade of C- or better.

UPD 312 Planning And Design Studio II Credits: 4
Studio instruction in urban planning and design focusing on the synthesis of land use analyses, regulatory reviews, urban design issues, and public participation facilitation. Continued instruction in techniques for visually presenting planning and design ideas.

Prerequisites: UPD 300, UPD 310 with a grade of C- or better.

UPD 320 Planning Theory And Practice Credits: 3
This course examines contemporary urban planning and design practice. Theories about planning practice and related case studies will be the basis of this course. Topics covered will include the definition of urban planning, the idea of the "public realm," planning/design expertise and the rational model, the role of diversity, public participation, communicative planning, advocacy and equity planning, ethics comprehensiveness and the limits of planning. The course will include assignments that will build student's ability to write quick and analytical assessments, often required in planning practice. Students will be required to attend public planning forums in and around the region.

UPD 332 Environmental Sustainability Credits: 3
Explores the meaning of sustainability at the personal, governmental and global levels. We will discuss the scientific facts of climate change and ecology, the role of individual and collective choice, and positive approaches for society being developed around the world. No prerequisites. This course is open to all and highly recommended for Environmental Studies majors.

UPD 332CZ Environmental Sustainability Credits: 3
This course will introduce the concept of sustainability and review how sustainability might work at the individual, neighborhood, state, nation and global scales. Students will participate in some form of community engagement on sustainability as well as reflect upon how their own practices impact the environment. Counts toward AS Interdisciplinary "Cluster course." Key course in sustainability minor.

UPD 340 Neighborhood And Community Development Credits: 3
Course provides a comprehensive introduction to the field of community development and neighborhood planning. The development of theoretical models that explain neighborhood change and history in the U.S. will serve as the basis. Issues explored include: community organizing, social movements, federal and state policies, and the role of planning organizations and community development corporations in neighborhood revitalization.

UPD 400 Advanced GIS For Urban Planning Credits: 3
This advanced level GIS course is designed to expose students to high level GIS techniques and geospatial analyses in urban planning. Students will learn advanced theories and geographic information tools with hands-on experiences. Students will have an opportunity to apply their knowledge and skills in GIS to a real world planning project in class.

UPD 403 GIS for Urban Planning Credits: 3
The introductory level GIS course is designed to expose graduate students to Geographical Information Systems (GIS). Students will learn basic concepts and theories of GIS and application of GIS software with hands-on experience. Students will also learn how to search for demographic, socio-economic, land use, transportation, and geospatial data.

UPD 410 Planning And Design Studio III Credits: 4
Instruction in problem analysis and plan development for defined urban or suburban location with multiple constituencies.

Prerequisites: UPD 312 and not more than one grade of D in a UPD studio course.

UPD 411 Professional Practice I Credit: 1
A seminar preparing students for professional practice in urban planning + design including the preparation of a professional resume and portfolio.

Co-requisites: UPD 312.
UPD 412WI Planning And Design Studio IV Credits: 5
Capstone course that incorporates a topical plan or a comprehensive plan for a client comprising a development subdivision, a community or a redevelopment area.
Prerequisites: UPD 410 with a grade of C- or better, RooWriter.

UPD 413 Professional Practice II Credit: 1
A continuation of professional practice seminar addressing issues of professional writing in Urban Planning and Design practice.
Prerequisites: UPD 411.
Co-requisites: UPD 410.

UPD 420 Transportation Planning Credits: 3
The course provides fundamental theories, methods, and contemporary issues in transportation planning. The topics covered in this course include the transportation planning process, transportation systems, travel demand analysis, and policy issues such as the linkage between land use and transportation, urban transportation finance, social and environmental justice, transportation and environmental impacts, and traffic congestion.

UPD 430 Planning For Historic Preservation Credits: 3
The course provides a survey of major issues in the field of historic preservation and heritage studies from a planning perspective. Will focus primarily on the built environment of the United States, as well as world heritage sites and international perspectives. The course will include the urban planning techniques used for preserving historic buildings, neighborhood and districts, as well as some of the landmark legal decisions and legislation that have shaped heritage preservation practice in the U.S. Recommended Preparation: UPD 260.

UPD 432 Urban Environment Planning And Design Credits: 3
The built environment does not exist in a vacuum. Cities operate within broad ecological processes. Effective environmental planning can protect important natural resources while providing for a higher quality of life for urban residents. As a survey course in a subfield of urban planning, this course introduces students to environment planning approaches and techniques.

UPD 450 Planning Law And Practice Credits: 3
Introduction to legal procedures basic to urban planning; including legal, constitutional, legislative, and administrative concepts, controls, and land-use regulations.

UPD 472 Urban Redevelopment Credits: 3
Contemporary issues of urban redevelopment, with an emphasis on American cities, will be examined. Redevelopment processes recently completed or underway in the greater Kansas City region will be the subject of a case study and a theoretical review by each student.

UPD 475 American Housing Credits: 3
Students will explore housing in cultural, design, and historical terms and examine contemporary American housing policy.

UPD 490 Urban Planning Internship Credits: 3
Urban planning work experience off-campus with an approved professional, Government, or non-profit agency sponsor. A contract specifying the expected product of the internship is required between the student, agency, and faculty coordinator.
Prerequisites: UPD 203, UPD 300.

UPD 496 Directed Studies In Urban Planning Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor.

UPD 499 Special Topics In Urban Planning Credits: 1-3
Advanced independent research and analysis in urban planning. Topics and methods used in research, to be established by student and academic supervisor prior to enrollment.

UPD 499A Special Topics In Urban Planning Credits: 1-3
Advanced independent research and analysis in urban planning. Topics and methods used in research, to be established by student and academic supervisor prior to enrollment.

UPD 499B Special Topics In Urban Planning Credits: 1-3
Advanced independent research and analysis in urban planning. Topics and methods used in research, to be established by student and academic supervisor prior to enrollment.

UPD 499C Special Topics In Urban Planning Credits: 1-3
Advanced independent research and analysis in urban planning. Topics and methods used in research, to be established by student and academic supervisor prior to enrollment.

UPD 5526 History of Urban Planning & Design Credits: 3
The course provides a survey of the history of urban planning and design with emphasis on the nineteenth and twentieth centuries in the United States. The course also teaches basic historic research methods.

UPD 5596 Directed Study In Urban Planning And Design Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor.

UPD 5596A Directed Study In Urban Planning And Design Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor.
UPD 5596B Directed Study In Urban Planning And Design Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor.

UPD 5596C Directed Study In Urban Planning And Design Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor.

UPD 5599 Special Topics In Urban Planning And Design Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor.

UPD 5599A Special Topics In Urban Planning And Design Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor.

UPD 5599B Special Topics In Urban Planning And Design Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor.

UPD 5599C Special Topics In Urban Planning And Design Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor.

UPD 5630 Quantitative Planning Methods I Credits: 3
This course introduces graduate students to quantitative methods in urban planning analysis. Topics include relating built form to function, demographic forecasting, economic impact analysis, trip generation, and housing market dynamics.

Prerequisites: STAT 235.

UPD 5700 Advanced Planning Theory & Practice Credits: 3
Exploration of contemporary planning theory and practice, including planning knowledge, skills, values, and ethics.

UPD 5710 Historic Preservation Studio Credits: 3
Studio instruction in historic preservation planning focusing on research, context, evaluation, policy, and plan creation for historic resources.

UPD 5740 Advanced GIS for Urban Planning Credits: 3
This advanced level GIS course is designed to expose graduate students to high level GIS techniques and geospatial analysis in the urban planning context. Students will learn data management skills in GIS and advanced geoprocessing tools with hand-on experiences. Students will also have an opportunity to work on a real world GIS project as part of course requirements.

Prerequisites: UPD 203 (or equivalent).

UPD 5742 Transportation Planning Credits: 3
This course provides fundamental theories, methods, and contemporary issues in transportation planning. The topics covered in this course include the transportation planning process, transportation systems, travel demand analysis, and policy issues such as the linkage between land use and transportation and environmental impacts, and traffic congestion.

UPD 5743 Introduction to Historic Preservation Credits: 3
The course introduces the history and theory of historic preservation through a survey of major issues in the field from a planning perspective. The course focuses on preservation through cultural, social, historical, legal, policy, and economic lenses, primarily in the United States.

UPD 5744 History of the Built Environment Credits: 3
Survey of the built environment concentrating on nineteenth and twentieth century design in the United States.

UPD 5745 Historic Preservation Methods Credits: 3
Exploration of historic preservation methods, including survey, documentation, policy, and management approaches used in practice.

UPD 5746 Urban Environmental Planning Credits: 3
Urban environmental planning examines ecological change due to urbanization. It looks at ways to measure and demonstrate ecological change at the site, neighborhood, and regional scales. Students incorporate environmental ideas and policies into plans developed for a client.

UPD 5747 Urban Redevelopment Credits: 3
This course examines techniques of urban redevelopment within urban planning and real estate. Graduate students learn about the development process, real estate markets, techniques of development finance and local policy approaches to urban redevelopment incentives.

UPD 5750 American Housing Credits: 3
Students will explore housing in cultural, design, and historical terms and examine contemporary American housing policy.

UPD 5790 Historic Preservation Internship Credits: 3
Off-campus work experience with an approved professional, government, or nonprofit agency sponsor.

Prerequisites: UPD 5743.

Urban Studies Courses

URBAN ST 100 Neighborhood And Community Development Credits: 3
Course provides a comprehensive introduction to the field of community development and neighborhood planning. The development of theoretical models that explain neighborhood change and history in the United States will serve as the basis. Issues explored include: Community organizing, social movements, federal and state policies, and the role of planning organizations and community development corporations in neighborhood revitalization.
URBAN ST 340 Neighborhood and Community Development Credits: 3
Course provides a comprehensive introduction to the field of community development and neighborhood planning. The development of theoretical models that explain neighborhood change and history in the U.S. will serve as the basis. Issues explored include: community organizing, social movements, federal and state policies, and the role of planning organizations and community development corporations in neighborhood revitalization.

URBAN ST 495 Urban Studies Internship Credits: 1-6
Students obtain directed practical experience working with non-profits, governments, or private enterprises. Duties will vary based on contractual agreement between the student, host organization, and the professor.
**Prerequisites:** junior standing or higher.

URBAN ST 499WI Urban Studies Seminar Credits: 3
This is the capstone course in the Urban Studies Program and is required for majors in the junior/senior year. Students critique urban research and prepare a paper and an oral presentation on an approved topic.
**Prerequisites:** RooWriter.
Architectural Studies Major

Architectural Studies is a two-year cooperative program with Kansas State University that began in 1987. The accredited curriculum at the KSU College of Architecture Planning and Design is offered at UMKC for the first two years of study. After successfully completing the coursework at UMKC, students are eligible for entry to Kansas State University, College of Architecture Planning and Design. There, students can study architecture, interior architecture and landscape architecture. Students must maintain a minimum 2.75 GPA in the Architectural Studies program.

Architectural Accreditation

The Kansas State University College of Architecture, Planning and Design (with which the UMKC Architectural Studies Program collaboratively participates) is accredited by the National Architectural Accrediting Board (NAAB).

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes two types of degrees: the bachelor of architecture and the master of architecture.

A program may be granted a five-year, three-year, or two-year term of accreditation, depending on its degree of conformance with established educational standards.

Master’s degree programs may consist of a pre-professional undergraduate degree and professional graduate degree, which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree
Graduate Certificate in Historic Preservation

Student Learning Outcomes

Students graduating from this program will:

- demonstrate the ability to identify, synthesize, and interpret historic resources.
- demonstrate the ability to apply historic preservation methods and techniques.
- demonstrate effective professional writing and communication skills.

The highest standard for historic preservation education is membership in the National Council for Preservation Education (NCPE). Once approved, the program will seek membership. The program has been designed in accordance with NCPE membership standards, which are found at the following link: http://www.ncpe.us/about-ncpe/standards/

The certificate requires 18 credits (six 3-credit courses), as follows:

Program Requirements:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPD 5743</td>
<td>Introduction to Historic Preservation</td>
<td>3</td>
</tr>
<tr>
<td>UPD 5744</td>
<td>History of the Built Environment</td>
<td>3</td>
</tr>
<tr>
<td>UPD 5745</td>
<td>Historic Preservation Methods</td>
<td>3</td>
</tr>
<tr>
<td>UPD 5700</td>
<td>Advanced Planning Theory &amp; Practice</td>
<td>3</td>
</tr>
<tr>
<td>UPD 5710</td>
<td>Historic Preservation Studio</td>
<td>3</td>
</tr>
<tr>
<td>or UPD 5790</td>
<td>Historic Preservation Internship</td>
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</tr>
</tbody>
</table>

Electives selected from below or as approved by advisor 3

- UPD 5526  History of Urban Planning & Design
- UPD 5740  Advanced GIS for Urban Planning
- UPD 5746  Urban Environmental Planning
- UPD 5747  Urban Redevelopment
- UPD 5750  American Housing
- HISTORY 5556 Rise of the City in the U.S.
- HISTORY 5556R Kansas City: History of a Regional Metropolis
- HISTORY 5570 Introduction to Material Culture
- HISTORY 5579 Public History: Theory and Method
- HISTORY 5594 Public History and New Media
- ART-HIST 5562 History of Modern Design
- PUB-ADM 5535 Urban Policy And Administration
- PUB-ADM 5555 Topics In Nonprofit Fundraising
- GEOG 5508 Archaeological Field Survey Methods
- GEOG 5509 Urban Geography
- GEOG 5512 Global Tourism
- LAW 8729  Preservation Law
- LAW 8729C Cultural Preservation Law

Year I

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Credits</th>
<th>Spring Semester</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>UPD 5743</td>
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<td>UPD 5700</td>
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<tr>
<td>UPD 5744</td>
<td>3</td>
<td>UPD 5745</td>
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|          |         |                 |         |
| 6        | 6       |                 |         |

Year II

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Credits</th>
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<tr>
<td>UPD 5710 or 5790</td>
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<tr>
<td>Elective(s)</td>
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</tbody>
</table>

Total Credits: 18
Bachelor of Arts in Urban Planning and Design

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

• Knowledge of structure and functions of urban settlements.
• Knowledge of history and theory of planning processes and practices.
• Knowledge of administrative, legal and political aspects of plan-making and policy implementation.
• Knowledge of familiarity with at least one area of specialized knowledge of a particular subject or set of issues.
• Skill in problem formulation, research skills and data gathering.
• Skill in quantitative analysis and computers.
• Skill in written, oral and graphic communication.
• Skill in collaborative problem solving, plan-making and program design.
• Skill in synthesis and application of knowledge to practice.
• Value in issues of equity, social justice, economic welfare and efficiency in the use of resources.
• Value in the role of government and citizen participation in a democratic society and the balancing of individual and collective rights and interests.
• Value in respect for diversity of views and ideologies.
• Value in the conservation of natural resources and of the significant social and cultural heritages embedded in the built environment.
• Value in the ethics of professional practice and behavior, including the relationship to clients and the public, and the role of citizens in democratic participation.

The Urban Planning and Design program provides an innovative curriculum that incorporates a combination of broad liberal arts courses, with a core of professional planning classes, coupled with a series of design studios. The design studio represents a forum where students employ a creative process, infused with knowledge gained from supporting courses, to generate holistic urban planning and design solutions. Urban design projects will engage professionals, civic officials, neighborhood leaders and government officials into an important dialogue.

Admission to the program is selective and reviewed by the UPD program.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Anchor I</td>
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</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>
DISC 100  Discourse I: Reasoning and Values (Speech and Writing)  3
DISC 200  Discourse II: Culture and Diversity (Writing and Speech)  3
DISC 300  Discourse III: Civic and Community Engagement (Speech and Writing)  3
Focus A  
Focus B (Satisfied in program requirements below)
Focus C (May be satisfied by the Constitution course requirement below)
Focus Elective (Satisfied in program requirements below)
'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 21

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement
Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
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<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) ¹</td>
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<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) ¹</td>
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</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
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</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) ¹</td>
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<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) ¹</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 3

¹ Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

• Take an equivalent course from the list above at a regionally accredited institution.
• Earn credit for one of the above courses through AP, IB, or CLEP.
• Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
• Have a previous bachelors degree (or higher) from a regionally accredited institution.
• Have an Associate of Arts degree from a regionally accredited institution.
• Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements
Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
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</tr>
<tr>
<td>Arts and Humanities Division of CAS ¹</td>
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<td>6</td>
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<tr>
<td>Science and Math Division of CAS</td>
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</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS (Satisfied in program requirements below)</td>
<td></td>
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<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
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<tr>
<td>Foreign Language (3rd Semester Level)</td>
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</tr>
<tr>
<td>MATH 110 or MATH 116 or MATH 120</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course; Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>or MATH 116 or MATH 120</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
<td></td>
</tr>
</tbody>
</table>
Laboratory Science Experience 1  
Total Credits 22  

1. ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement. 
2. This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.  

## Major Requirements  
Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or ALEKS score of at least 61)</td>
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<tr>
<td><strong>Studio</strong></td>
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<tr>
<td>ENV-DSN 201</td>
<td>Environmental Design Studio I</td>
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<tr>
<td>ENV-DSN 202</td>
<td>Environmental Design Studio II</td>
<td>4</td>
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<tr>
<td>UPD 310</td>
<td>Planning And Design Studio I</td>
<td>4</td>
</tr>
<tr>
<td>UPD 312</td>
<td>Planning And Design Studio II</td>
<td>4</td>
</tr>
<tr>
<td>UPD 410</td>
<td>Planning And Design Studio III</td>
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<tr>
<td>UPD 411</td>
<td>Professional Practice I</td>
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<tr>
<td>UPD 412WI</td>
<td>Planning And Design Studio IV</td>
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<tr>
<td>UPD 413</td>
<td>Professional Practice II</td>
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<tr>
<td><strong>Urban Planning</strong></td>
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<tr>
<td>ENV-DSN 203</td>
<td>Survey of the Design Professions</td>
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<td>UPD 203</td>
<td>GIS For Urban Planning</td>
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<tr>
<td>UPD 260</td>
<td>History Of Planning And Urban Design (Focus C)</td>
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<tr>
<td>UPD 280</td>
<td>Land Use Planning (Focus B)</td>
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<tr>
<td>UPD 300</td>
<td>Quantitative Planning Methods And Techniques</td>
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</tr>
<tr>
<td>UPD 320</td>
<td>Planning Theory And Practice</td>
<td>3</td>
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<tr>
<td>UPD 432</td>
<td>Urban Environment Planning And Design</td>
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<tr>
<td>UPD 450</td>
<td>Planning Law And Practice</td>
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<tr>
<td>UPD 490</td>
<td>Urban Planning Internship</td>
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<tr>
<td>STAT 235</td>
<td>Elementary Statistics (Focus B)</td>
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<td>ECON 201</td>
<td>Introduction To Economics I (Focus B)</td>
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<tr>
<td>or ECON 202</td>
<td>Introduction To Economics II</td>
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<tr>
<td><strong>Planning and Professional Electives</strong></td>
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<tr>
<td>Select a minimum of 2 of the following:</td>
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<tr>
<td>UPD 332</td>
<td>Environmental Sustainability</td>
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<tr>
<td>UPD 340</td>
<td>Neighborhood And Community Development</td>
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<tr>
<td>UPD 400</td>
<td>Advanced GIS For Urban Planning</td>
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<tr>
<td>UPD 420</td>
<td>Transportation Planning</td>
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<tr>
<td>UPD 430</td>
<td>Planning For Historic Preservation</td>
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<tr>
<td>UPD 472</td>
<td>Urban Redevelopment</td>
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<tr>
<td>UPD 475</td>
<td>American Housing</td>
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<tr>
<td>UPD 499</td>
<td>Special Topics In Urban Planning</td>
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</tr>
<tr>
<td><strong>Urban Social Science</strong></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Select a minimum of one course, this includes but is not limited to the following:</td>
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<td></td>
</tr>
<tr>
<td>ANTHRO 331</td>
<td>Urban Anthropology</td>
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<tr>
<td>CJC 332</td>
<td>Race, Class and Justice</td>
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<tr>
<td>ECON 336</td>
<td>The Kansas City Economy</td>
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<td>ECON 458</td>
<td>Urban Economics</td>
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<td>GEOG 309</td>
<td>Urban Geography</td>
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<tr>
<td>LLS/URBAN ST 346</td>
<td>Urban Latin America</td>
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<tr>
<td>LLS 348</td>
<td>Latinx Immigrants, Migrants, and Refugees in the U.S.</td>
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<tr>
<td>HISTORY 356</td>
<td>Rise of the City in the U.S.</td>
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<tr>
<td>POL-SCI 314</td>
<td>Politics of Kansas City Metro</td>
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<tr>
<td>POL-SCI 424</td>
<td>Urban Politics and Community Power Structures</td>
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<tr>
<td>SOCIOL 431</td>
<td>Social Organization Of The City</td>
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<tr>
<td>SOCIOL 433</td>
<td>Immigration and the City</td>
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<tr>
<td>SOCIOL 434</td>
<td>Spatial Thinking in Social Science</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 67

1 The Department will review other related urban social science classes as needed.

**General Electives**

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0 (2.5 in all major coursework)

Total Credit Hours 120

**Tools for Planning and Fulfilling Academic Requirements**

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Arts: Urban Studies

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

• Be able to analyze how gender, ethnicity, and race play important roles in understanding the city. They will be exposed to the broader public through internships in the community.
• Be able to analyze how local, regional, and state governments and related institutions interact.
• Be able to describe how the urban society is structured in interrelated sectors that influence each other locally and interact with sectors beyond the local city.
• Be able to interpret demographic patterns at various scales, from the city block to the metropolitan area.
• Be able to design and implement a research project analyzing a specific urban issue.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>Focus C</td>
<td>(May be satisfied by the Constitution course requirement below)</td>
<td></td>
</tr>
<tr>
<td>Focus Elective</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 24

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelor’s degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arts and Humanities Division of CAS</td>
<td>Satisfied in program requirements below</td>
<td>6</td>
</tr>
<tr>
<td>Science and Math Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td>Satisfied in program requirements below</td>
<td></td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign Language (3rd Semester Level)</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course; Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>Laboratory Science Experience</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 22

1 ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

2 This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

Major Requirements

It is recommended to take one or more of these Anchor courses, depending on what your admittance level would be: ANCH 102, ANCH 206, ANCH 211, ANCH 301.

During the first 60 hours of coursework, students are advised to fulfill prerequisites for core courses and for required courses in the urban studies concentration they choose. At the same time, students should fulfill general graduation requirements, where possible, through completion of courses listed under College of Arts & Sciences Degree Requirements.
It is recommended that students planning an Urban Studies major take ENV-SCI 110R, ENV-SCI 210, or GEOLOGY 220 to satisfy part of the Science and Math Division of CAS requirements. In preparation for the core requirements of the urban studies major, the student should take ECON 201, SOCIOL 101, GEOG 105 and PSYCH 210.

When prerequisites and general requirements have been satisfied, students must complete for the urban studies major:

- Core course requirements: 22 hours
- Interest area requirements: 18 hours

Total hours required for the major in urban studies: 40 hours

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 110</td>
<td>Required Courses</td>
<td></td>
</tr>
<tr>
<td>GEOG 309/UPD 320</td>
<td>Urban Geography</td>
<td>3</td>
</tr>
<tr>
<td>URBAN ST 495</td>
<td>Urban Studies Internship</td>
<td>1</td>
</tr>
<tr>
<td>URBAN ST 499WI/SOCIOL 404WI/ECON 406WI</td>
<td>Urban Studies Seminar</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY (Choose 1)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 356R</td>
<td>Kansas City: History of a Regional Metropolis</td>
<td></td>
</tr>
<tr>
<td>UPD 260</td>
<td>History Of Planning And Urban Design</td>
<td></td>
</tr>
<tr>
<td>Statistics (Choose 1)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 263/CJC 210</td>
<td>Introduction to Statistics in Sociology/Criminal Justice (Does not count toward CAS Math requirements)</td>
<td></td>
</tr>
<tr>
<td>STAT 235</td>
<td>Elementary Statistics</td>
<td></td>
</tr>
<tr>
<td>Race/Class/Gender (Choose 1)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ANTHRO/LLS/SOCIOL 322</td>
<td>Race And Ethnic Relations</td>
<td></td>
</tr>
<tr>
<td>CJC 431</td>
<td>Hate &amp; Bias Crimes</td>
<td></td>
</tr>
<tr>
<td>ECON 314</td>
<td>Race, Class And Gender: Theory, History, And Policy</td>
<td></td>
</tr>
<tr>
<td>EDUC 428</td>
<td>Cultural Diversity And American Education</td>
<td></td>
</tr>
<tr>
<td>LLS 201</td>
<td>Introduction to Latina/o Studies</td>
<td></td>
</tr>
<tr>
<td>Urban Political Economy (Choose 1)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ECON 336</td>
<td>The Kansas City Economy</td>
<td></td>
</tr>
<tr>
<td>ECON 458</td>
<td>Urban Economics</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 314</td>
<td>Politics of Kansas City Metro</td>
<td></td>
</tr>
<tr>
<td>Methods (Choose 1)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>BLKS 404</td>
<td>Research Seminar</td>
<td></td>
</tr>
<tr>
<td>SOCIOL 362</td>
<td>Methods Of Sociological Research</td>
<td></td>
</tr>
<tr>
<td>SOCIOL 434</td>
<td>Spatial Thinking in Social Science</td>
<td></td>
</tr>
<tr>
<td>UPD 300</td>
<td>Quantitative Planning Methods And Techniques</td>
<td></td>
</tr>
<tr>
<td>Interest Area Electives (see below)</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

Total Credits: 40

**General Electives**

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>31</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0

Total Credit Hours: 120
**Interest Areas (18 hours)**

In addition to the core requirements, 18 hours should be taken in an interest area:

- Community Development and Housing
- Community Organization and Social Services
- Urban Policy/Management

In consultation with an advisor, selected by the student or designated by the program director, students are expected to develop a program (reflecting interest and applicability to career goals) in one interest area: a recommended course and five electives from those listed under the interest area chosen. Students may not double count any core courses toward the 18 hours.

### Community Development and Housing

**Recommended Course**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPD 340</td>
<td>Neighborhood And Community Development</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives**

Select five of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTHRO 331</td>
<td>Urban Anthropology</td>
<td></td>
</tr>
<tr>
<td>ECON 336</td>
<td>The Kansas City Economy</td>
<td></td>
</tr>
<tr>
<td>ENV-DSN 110</td>
<td>The Meaning Of Architecture</td>
<td></td>
</tr>
<tr>
<td>ENV-DSN 201</td>
<td>Environmental Design Studio I</td>
<td></td>
</tr>
<tr>
<td>ENV-DSN 202</td>
<td>Environmental Design Studio II</td>
<td></td>
</tr>
<tr>
<td>GEOG 203</td>
<td>Introduction to Geographic Information Systems</td>
<td></td>
</tr>
<tr>
<td>GEOG 311</td>
<td>Economic Geography</td>
<td></td>
</tr>
<tr>
<td>GEOG 437</td>
<td>Population Geography</td>
<td></td>
</tr>
<tr>
<td>SOCIOL/LLS 348</td>
<td>Latinx Immigrants, Migrants, and Refugees in the U.S</td>
<td></td>
</tr>
<tr>
<td>SOCIOL 431</td>
<td>Social Organization Of The City</td>
<td></td>
</tr>
<tr>
<td>UPD 203</td>
<td>GIS For Urban Planning</td>
<td></td>
</tr>
<tr>
<td>UPD 260</td>
<td>History Of Planning And Urban Design</td>
<td></td>
</tr>
<tr>
<td>UPD 280</td>
<td>Land Use Planning</td>
<td></td>
</tr>
<tr>
<td>UPD 310</td>
<td>Planning And Design Studio I</td>
<td></td>
</tr>
<tr>
<td>UPD 312</td>
<td>Planning And Design Studio II</td>
<td></td>
</tr>
<tr>
<td>UPD 320</td>
<td>Planning Theory And Practice</td>
<td></td>
</tr>
<tr>
<td>UPD 420</td>
<td>Transportation Planning</td>
<td></td>
</tr>
<tr>
<td>UPD 430</td>
<td>Planning For Historic Preservation</td>
<td></td>
</tr>
<tr>
<td>UPD 450</td>
<td>Planning Law And Practice</td>
<td></td>
</tr>
<tr>
<td>UPD 472</td>
<td>Urban Redevelopment</td>
<td></td>
</tr>
<tr>
<td>UPD 475</td>
<td>American Housing</td>
<td></td>
</tr>
<tr>
<td>URBAN ST/LLS 346</td>
<td>Urban Latin America</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits**

18

### Community Organization and Social Services

**Recommended Course**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTHRO 331</td>
<td>Urban Anthropology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives**

Select five of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 101</td>
<td>Introduction To Criminal Justice</td>
<td></td>
</tr>
<tr>
<td>CJC 383</td>
<td>Policies Of Drug Use And Control</td>
<td></td>
</tr>
<tr>
<td>CJC 431</td>
<td>Hate &amp; Bias Crimes</td>
<td></td>
</tr>
<tr>
<td>CJC 481</td>
<td>Restorative Justice</td>
<td></td>
</tr>
<tr>
<td>ECON 314</td>
<td>Race, Class And Gender: Theory, History, And Policy</td>
<td></td>
</tr>
<tr>
<td>GEOG 203</td>
<td>Introduction to Geographic Information Systems</td>
<td></td>
</tr>
<tr>
<td>GEOG 437</td>
<td>Population Geography</td>
<td></td>
</tr>
</tbody>
</table>
### Bachelor of Arts: Urban Studies

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LLS 310</td>
<td>The World of Latinx Youth and Adolescents in the U.S.</td>
</tr>
<tr>
<td>POL-SCI 360</td>
<td>Labor, Politics and Society</td>
</tr>
<tr>
<td>PSYCH 322</td>
<td>Child Psychology</td>
</tr>
<tr>
<td>PSYCH 406P</td>
<td>Introduction To Developmental Disabilities</td>
</tr>
<tr>
<td>PSYCH 407P</td>
<td>Developmental Disabilities And Community Life</td>
</tr>
<tr>
<td>SOCIOL 211</td>
<td>Social And Psychological Development Through The Life Cycle</td>
</tr>
<tr>
<td>SOCIOL 302</td>
<td>Social Stratification</td>
</tr>
<tr>
<td>SOCIOL 322</td>
<td>Race And Ethnic Relations</td>
</tr>
<tr>
<td>SOCIOL 335R</td>
<td>Introduction To Social Work: Principles And Practice</td>
</tr>
<tr>
<td>SOCIOL/LLS 348</td>
<td>Latinx Immigrants, Migrants, and Refugees in the U.S</td>
</tr>
<tr>
<td>SOCIOL 431</td>
<td>Social Organization Of The City</td>
</tr>
<tr>
<td>SOCIOL 433</td>
<td>Immigration and the City</td>
</tr>
<tr>
<td>UPD 203</td>
<td>GIS For Urban Planning</td>
</tr>
<tr>
<td>UPD 340</td>
<td>Neighborhood And Community Development</td>
</tr>
<tr>
<td>UPD 475</td>
<td>American Housing</td>
</tr>
<tr>
<td>URBAN ST/LLS 346</td>
<td>Urban Latin America</td>
</tr>
</tbody>
</table>

Total Credits 18

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL-SCI 314</td>
<td>Politics of Kansas City Metro</td>
</tr>
</tbody>
</table>

### Urban Policy/Management

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 431</td>
<td>Hate &amp; Bias Crimes</td>
</tr>
<tr>
<td>ECON 336</td>
<td>The Kansas City Economy</td>
</tr>
<tr>
<td>ECON 435</td>
<td>Public Finance</td>
</tr>
<tr>
<td>ECON 458</td>
<td>Urban Economics</td>
</tr>
<tr>
<td>GEOG 203</td>
<td>Introduction to Geographic Information Systems</td>
</tr>
<tr>
<td>GEOG 311</td>
<td>Economic Geography</td>
</tr>
<tr>
<td>POL-SCI 360</td>
<td>Labor, Politics and Society</td>
</tr>
<tr>
<td>PUB-ADM 495</td>
<td>Voluntarism, Philanthropy &amp; The Non-Profit Sector In The U.S.</td>
</tr>
<tr>
<td>SOCIOL/LLS 348</td>
<td>Latinx Immigrants, Migrants, and Refugees in the U.S</td>
</tr>
<tr>
<td>SOCIOL 357</td>
<td>Social Movements</td>
</tr>
<tr>
<td>SOCIOL 433</td>
<td>Immigration and the City</td>
</tr>
<tr>
<td>UPD 203</td>
<td>GIS For Urban Planning</td>
</tr>
<tr>
<td>UPD 320</td>
<td>Planning Theory And Practice</td>
</tr>
<tr>
<td>UPD 420</td>
<td>Transportation Planning</td>
</tr>
<tr>
<td>UPD 430</td>
<td>Planning For Historic Preservation</td>
</tr>
<tr>
<td>UPD 432</td>
<td>Urban Environment Planning And Design</td>
</tr>
<tr>
<td>UPD 450</td>
<td>Planning Law And Practice</td>
</tr>
<tr>
<td>UPD 475</td>
<td>American Housing</td>
</tr>
<tr>
<td>URBAN ST/LLS 346</td>
<td>Urban Latin America</td>
</tr>
</tbody>
</table>

Total Credits 18

### NOTE: Courses counted towards the core requirements cannot be double-counted for the Interest Area

**Internship (3-6 hours)**

In developing internships, students should first contact the urban studies director.

The student is expected to participate in work activities in a community organization and receive instruction from agency staff for a minimum of 240 hours on site by the end of the program.
The internship may be repeated up to a maximum of two semesters and should be taken as URBAN ST 495. Other internship courses may satisfy this requirement with approval of the advisor.

**Tools for Planning and Fulfilling Academic Requirements**

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

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**Minor in Urban Studies**

**Student Learning Outcomes**

Students graduating from this program will:

- appreciate how gender, ethnicity, and race play important roles in understanding the city.
- be able to demonstrate knowledge of how local, regional, and state governments and related institutions interact. They will understand how the urban economy is structured in interrelated sectors that influence each other locally and interact with sectors beyond the local city. They will understand how to interpret demographic patterns at various scales, from the city block to the metropolitan area.
- will demonstrate the ability of critical thinking about urban space.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Required Course</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choose one of the following:</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>GEOG 309/UPD 320</td>
<td>Urban Geography</td>
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<td>SOCIOL 431</td>
<td>Social Organization Of The City</td>
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<td>GEOG 203</td>
<td>Introduction to Geographic Information Systems</td>
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<td>Methods Of Sociological Research</td>
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<td>SOCIOL 434</td>
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<td>UPD 203</td>
<td>GIS For Urban Planning</td>
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<td>UPD 260</td>
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<td>UPD 300</td>
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<td>BLKS 302</td>
<td>Conceptual and Theoretical Foundations in African American Studies</td>
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<td>ECON 336</td>
<td>The Kansas City Economy</td>
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<td>ECON 303H</td>
<td>Special Issues In Economic</td>
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<td>POL-SCI 438</td>
<td>Urban Politics</td>
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<td><strong>Race/Class/Gender</strong></td>
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<td>Social Stratification</td>
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<td>Race And Ethnic Relations</td>
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<td>ANTHRO 331</td>
<td>Urban Anthropology</td>
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<td>Global Systems and the Origins of Black American Culture and Institutions</td>
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<td>CJC 332</td>
<td>Race, Class and Justice</td>
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<td>ECON 314</td>
<td>Race, Class And Gender: Theory, History, And Policy</td>
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<td>GEOG 334</td>
<td>Gender and the Environment</td>
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<td>LLS 201</td>
<td>Introduction to Latina/o Studies</td>
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<td>SOCIOL 433</td>
<td>Immigration and the City</td>
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<td><strong>The Urban Built Environment</strong></td>
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<td>HISTORY 356</td>
<td>Rise of the City in the U.S.</td>
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<td>or HISTORY 356R</td>
<td>Kansas City: History of a Regional Metropolis</td>
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<td>PHILOS 370</td>
<td>Environmental Ethics And Policy</td>
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<td>PUB-ADM 497</td>
<td>Special Topics In Public Administration</td>
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<td>UPD 280</td>
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<td>UPD 420</td>
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<td>UPD 432</td>
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<td>UPD 472</td>
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<td>UPD 475</td>
<td>American Housing</td>
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<td>ECON 435</td>
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<td>POL-SCI 314</td>
<td>Politics of Kansas City Metro</td>
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<td>SOCIOL/LLS 348</td>
<td>Latinx Immigrants, Migrants, and Refugees in the U.S</td>
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<td>UPD 430</td>
<td>Planning For Historic Preservation</td>
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<td>UPD 450</td>
<td>Planning Law And Practice</td>
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<tr>
<td>UPD 472</td>
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<tr>
<td>URBAN ST/LLS 346</td>
<td>Urban Latin America</td>
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</table>

Total Credits 18

Total Hours Required: 18

Minimum of 9 hours from UMKC.

Courses selected to meet minor requirements cannot be double-counted.
Minor in Anthropology

Students are urged to confer with a department advisor to plan a minor. To declare a minor in anthropology, students must file a completed declaration form with a current copy of their transcript with the Anthropology Program Coordinator. Completion of the minor is recorded on the student’s transcript.

Student Learning Outcomes

Students graduating from this program will:

- Examine the role and relevance of the anthropological perspective for contemporary social life. Thus students will gain knowledge of the fundamentals in Anthropology, such as the foundations of human practice, belief, and organization.
- Reflect on contemporary issues and controversies in the academic discipline of Anthropology. Thus students will be able to examine issues of inequality, cultural difference, and social stratification from a comparative perspective, applying anthropological principles and concepts to their own lives.
- Explore the basic theoretical and methodological perspectives, both in the social sciences and in a chosen specialty area. Thus students will have the capacity to critically evaluate and engage contemporary issues, trends in theory, and instruments of social analysis.
- Advance the critical research, thinking, and writing skills that are integral to professional development and civic engagement. Thus, students will apply the fundamentals of anthropology to both experience and enhanced interest in community engagement.

Anthropology is a holistic and cross-culturally comparative science that is uniquely qualified to prepare students for multicultural work and social environments in the U.S. and abroad. Careers for anthropologists, however, lie in all areas of human interaction. Anthropologists are especially attractive to companies and government agencies that work with and for national minorities and in foreign countries.

Students will be introduced to the subject and methods of cultural anthropology, examining its foundations and current trends in theory and applications. Students earning a minor in anthropology take 3 credit hours of required coursework (ANTHRO 103) and 15 credit hours of elective courses, which result in a total of 18 credit hours. At least 9 of the 18 credit hours must be in courses at the 300- or 400-level. Where courses are cross-listed in a major and a minor, only 6 credit hours can be applied to both. Only 3 credit hours can be shared between two minors. Students should consult with the program coordinator to select the appropriate courses. A minimum grade of C in ANTHRO 103 and a minimum overall GPA of 2.0 in the minor must be attained. No more than 6 of the 18 credits may be transferred from another institution.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tr>
<td>ANTHRO 103</td>
<td>Introduction To Cultural Anthropology</td>
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<td>Elective Coursework (in consultation with advisor)</td>
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<td>Total Credits</td>
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</tbody>
</table>
Department of Art and Art History

Fine Arts Building, Room 204
5015 Holmes Street
Kansas City, MO 64110
(816) 235-1501
art@umkc.edu
http://info.umkc.edu/art

Department Chair:
Barry Anderson  Contact Information

Professors:
Barry Anderson  Contact Information
Frances S. Connelly  Contact Information
Burton L. Dunbar  Contact Information
Elijah Gowin  Contact Information
Kati Toivanen  Contact Information
Maude Wahlman  Contact Information
Rochelle Ziskin  Contact Information

Associate Professors:
Richard W. Allman  Contact Information
Paul Tosh  Contact Information

Assistant Professor:
Cristina Albu  Contact Information
Hyeyoung Shin  Contact Information

Research Associate Professor and Joint Appointment with The Nelson-Atkins Museum of Art:
Robert Cohon  Contact Information

Full-time Lecturer:
Davin Watne  Contact Information

Visual Resources Director:
Carla Gilliland Poirier  Contact Information

Professors Emeriti:
Eric J. Bransby
William Crist
Barbara Mueller
Craig A. Subler

Instructor Emeritus:
Nancy DeLauner

Department Description

The Department of Art and Art History is a dynamic environment that aims to provide all UMKC students with education and experience to develop their creative- and critical-thinking skills, their art-making abilities, and their versatility in professional and personal situations. The Department serves a variety of students, ranging from the non-major to the professionally oriented. The department offers programs leading to the Bachelor of Arts and Master of Arts degree in Art History or Studio Art, as well as minors in each area. Art History also participates in the Interdisciplinary Ph.D. program.

Students studying Art History or Studio Art obtain a broad liberal arts foundation during their educational career and receive sound fundamental training in the arts. Small class sizes combined with interactive teaching methods offer a comprehensive learning environment for the aspiring arts professional. The department also collaborates with other departments and schools, and works with the School of Education on Art Education degrees.

Kansas City is nationally known for its vibrant arts scene, with the UMKC Gallery of Art, Plug Projects (http://www.plugprojects.com), and many galleries located in the Crossroads Arts District (http://www.kccrossroads.org). The department’s partnerships with art organizations like Charlotte Street Foundation (http://www.charlottestreet.org), ArtsKC (http://www.artskc.org), Studios Inc (http://thestudiosinc.org), and others structure internships, networking, entrepreneurial mentoring and other professional development opportunities. Visiting artists and scholars (http://
Outside of the classroom, physical proximity and close professional connections to the museums, studios, galleries, and art organizations in the Kansas City community offer students additional opportunities for exposure to new ideas, media, and special events. The extensive collection of The Nelson-Atkins Museum of Art (http://www.nelson-atkins.org) is located three blocks away, and there are also major contemporary collections nearby, including those of the Kemper Museum of Contemporary Art (http://www.kemperart.org), H&R Block Artspace (http://www.kcai.edu/hr-block-artspace), the Belger Arts Center (http://www.belgerartscenter.org), and the Nerman Museum of Contemporary Art (http://www.nermanmuseum.org).

Special Resources/Programs

UMKC Gallery of Art
The department is home to the UMKC Gallery of Art (http://info.umkc.edu/gallery). The gallery organizes curated shows from visiting local, national, and international artists, as well arranging shows of student and alumni work. The annual Student Art Exhibition is a guest-juried exhibition that features the work of the current student body.

Visual Resources Library (VRL)
The department is also home to the Visual Resources Library (http://info.umkc.edu/art/about), which hosts an online collection of approximately 45,000 digital images representing significant works of Western art and architecture, ancient through contemporary; the history of photography, printmaking, decorative arts and design; and art of Islam, Asia, Africa and the Americas. The VRL is also a space that hosts workshops for student needs and development, such as informational sessions about department events/opportunities as well as special events like the VRL Book Sale.

The Nelson-Atkins Museum of Art
The University of Missouri-Kansas City is fortunate to be adjacent to one of the most comprehensive and distinguished art museums in the country: The Nelson-Atkins Museum of Art (http://www.nelson-atkins.org). In addition to having ready access to the gallery's collection, advanced students may be privileged to use the museum's other facilities, such as the reference library, the acquisition records or the museum's collections. Use of these facilities is undertaken only after consultation with a member of the faculty. Admission to the museum is free to everyone.

The Department maintains a close relationship with the museum through joint appointments, curator-taught seminars, student internships and other cooperative programs.

Undergraduate Admission Information

In undergraduate studies, the Studio Art (p. 78) and Art History (p. 74) programs offer Bachelor of Arts degrees. For incoming freshmen, there are no special requirements beyond those for admission to the University. Transfer students to UMKC need to meet with both a department and a general education advisor prior to beginning classes to evaluate their transcripts to determine course equivalencies.

Program Overview

Degree programs in Studio Art and Art History at UMKC are the B.A. and the M.A. Art History also participates in the Interdisciplinary Ph.D. program. All the programs provide an exciting educational experience in a liberal arts setting.

The Studio Art faculty is comprised of accomplished and actively exhibiting artists, offering courses in drawing, painting, graphic design, print media, digital imaging, motion design, and photography. The faculty of six art historians, one a joint appointment with the Nelson-Atkins Museum, offers courses in the art and architecture of Ancient, Northern Renaissance, Baroque, Modern European, Contemporary, and American, Native American, African, and African-American cultures. The strong adjunct faculty consists of local artists, art educators and professionals. Curators from The Nelson-Atkins Museum of Art (http://www.nelson-atkins.org) regularly offer advanced Art History courses, most recently on topics like Decorative Arts, Art and Patronage in 16th Century Rome, Islamic Art and the Spiritual in Contemporary Art.

Outside of the classroom, physical proximity and professional connections to the museums, studios and art organizations in Kansas City community offer students additional opportunities for internships, visiting artists, and enrichment programs to supplement coursework. Classes make use of the extensive collections at The Nelson-Atkins (http://www.nelson-atkins.org) located three blocks away, as well as the major contemporary collections in Kansas City, including those of the Kemper Museum of Contemporary Art (http://www.kemperart.org), the Belger Arts Center (http://www.belgerartscenter.org) and the Nerman Museum of Contemporary Art (http://www.nermanmuseum.org). Community arts organizations such as the UMKC Gallery of Art (http://info.umkc.edu/art/umkcgallery/contact), the H&R Block Artspace (http://www.kcai.edu/hr-block-artspace), and various art galleries located in the Crossroads Arts District (http://kccrossroads.org) lend unique learning opportunities for studio art and art history majors to experience. Research in Art History is supported by the Miller-Nichols Library (http://library.umkc.edu/node) at UMKC, the Spencer Art Reference Library (http://www.nelson-atkins.org/research/library) at the Nelson-Atkins Museum, and the Linda Hall Library (http://www.lindahall.org).

Career Opportunities

Career opportunities in Studio Art include education, arts administration and practicing art and design in fields of graphic design, interactive design, video arts, print media, photography, digital arts, painting and illustration. Graduates in the Studio Art programs at UMKC have found employment with Artist Inc (http://www.kcartistlink.org/artistinc), Hallmark (http://www.hallmark.com), Barkley (http://www.barkleyus.com), Federal Reserve Bank of Kansas City (https://www.kansascityfed.org), Epsten Gallery at Village Shalom (http://www.villageshalom.org), mySidewalk (http://
www2.mysidewalk.com), the Kansas City Municipal Commission (http://kcmo.gov/generalservices/municipal-art-commission-2) and as successful independent artists. Students have been accepted into graduate programs at institutions including the University of Missouri at Columbia (http://www.missouri.edu), Sam Fox School at Washington University (http://www.samfoxschool.wustl.edu/node/4145), Ohio State (http://www.osu.edu), Guildhall at Southern Methodist University (http://guildhall.smu.edu) and the Rhode Island School of Design (http://www.risd.edu).

Career paths in Art History include work in museums and galleries, educational institutions, and arts administration. Other career choices that mesh well with an Art History degree are publishing, art appraisal, non-profit art or history organizations, archival work, and library science. Graduates from the Art History M.A. program at UMKC have found positions at the Los Angeles County Museum of Art (http://www.lacma.org), Rhode Island School of Design, the Nelson-Atkins Museum, the H&R Block Artspace, the Kemper Museum of Contemporary Art, Avila University (http://www.avila.edu), the Wadsworth Athenaeum (http://www.wadsworthatheneum.org), and the University of North Carolina at Chapel Hill (http://www.unc.edu), as well as right here at UMKC. The M.A. degree at UMKC provides an excellent preparation for doctoral work. Degree requirements are structured to give students a thorough background in research methodology, and courses are taught by faculty actively involved in research. Our graduates have continued their work toward the Ph.D. at institutions including the University of Chicago (http://www.uchicago.edu), Princeton University (http://www.princeton.edu), Case Western Reserve University (http://www.case.edu), the University of Michigan (http://www.umich.edu), and the University of Kansas (http://www.ku.edu).

Faculty

Cristina Albu Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=albu); Assistant Professor of Art History; B.A. (University of Bucharest); M.A. (University of Warwick); M.A., Ph.D. (University of Pittsburgh)

Richard W. Allman Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=allman); Associate Professor of Studio Art; B.F.A. (Massachusetts College of Art); M.F.A. (Rhode Island School of Design).

Barry Anderson Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=anderson); Professor of Studio Art; B.F.A. (University of Texas at Austin); M.F.A. (Indiana University - Bloomington).

Eric J. Bransby; Professor Emeritus of Studio Art; B.A., M.A. (Colorado College); M.F.A. (Yale University).

Robert Cohon; Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=cohen); Research Associate Professor of Art History & Joint Appointment with The Nelson-Atkins Museum of Art; B.A. (Columbia University); M.A., Ph.D. (New York University).

Frances Connelly Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=connelly); Professor of Art History; B.A. (Wake Forest University); M.A. (University of Pittsburgh); M.F.A. (University of North Carolina at Greensboro); Ph.D. (University of Pittsburgh).

William G. Crist; Professor Emeritus of Studio Art; B.A. (University of Washington, Seattle); M.F.A. (Cranbrook Academy of Art).

Nancy DeLaurier; Instructor Emeritus of Studio Art; B.S. (Northwestern University).

Burton L. Dunbar III Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=dunbar); Professor of Art History; B.A. (Park College); M.A., Ph.D. (University of Iowa).

George Ehrlich; Professor Emeritus of Art History; B.S., M.F.A., Ph.D. (University of Illinois).

Stephen J. Gosnell; Associate Professor Emeritus of Studio Art; M.A. (State University of New York).

Elijah Gowan Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=gowan); Professor of Studio Art; B.A. (Davidson College); M.F.A. (University of New Mexico).

Leonard I. Koenig; Professor Emeritus of Studio Art; B.A. (Adelphi College); M.A. (University of Iowa); M.F.A. (University of Wisconsin-Madison).

Barbara A. Mueller; Professor Emeritus of Studio Art; B.A. (Maryville College); M.A. (University of Iowa).

Craig A. Subler; Professor Emeritus of Studio Art; B.F.A. (Dayton Art Institute); M.A., M.F.A. (University of Iowa).

Kati Toivanen Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=toivanen); Associate Dean of Undergraduate Programs (College of Arts & Sciences); Professor of Studio Art; B.F.A. (Clark University); M.F.A. (School of the Art Institute of Chicago).

Paul Tosh; Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=tosh); Associate Professor of Studio Art; B.F.A. (Middle Tennessee State University); M.F.A. (University of Arizona).

Hye Young Shin Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=shin); Assistant Professor of Studio Art; B.F.A. (Kyung-Sung University); B.F.A. (Hong-Ik University); M.F.A. (University at Buffalo).

Davin Watne Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=watne); Full Time Lecturer of Studio Art; B.F.A (Kansas City Art Institute); M.F.A (Maryland Institute College of Art)
Rochelle N. Ziskin

1. Members of UMKC Graduate Faculty
2. Members of UMKC Doctoral Faculty

Undergraduate

Undergraduate Degrees

Bachelor of Arts: Art History (p. 74)
Bachelor of Arts: Studio Art (p. 78)
Minor in Art and Visual Communication (p. 85)
Minor in Art History (p. 86)
Minor in Studio Art (p. 87)

Graduate

Graduate Degrees:

Master of Arts: Art History (p. 81)

Master of Arts: Studio Art (p. 83)

Art Courses

ART 105 Introduction To Photography Credits: 3
An introduction to the general practice of photography. The course centers on the basic technical and aesthetic aspects of the medium. A fully adjustable digital camera is required.

ART 112 Foundation Drawing Credits: 3
This course focuses on developing skills and techniques of observational drawing. No previous drawing experience required.

ART 114 Foundation Digital Design Credits: 3
This is an introductory course on techniques, practical applications and aesthetic considerations for digital arts, graphic design, and computer multimedia. Students will create visual projects and learn to participate in a creative class community.

ART 121 Foundation 2D Design Credits: 3
The principles of visual thinking with emphasis on color theory and perception of form and space.

ART 131 Foundation 3D Design Credits: 3
Introductory study in three-dimensional formal principles with emphasis on the aesthetic properties.

ART 204 Digital Video and Motion Design I Credits: 3
This introductory digital video and motion design course is intended for studio majors. General techniques and practical application of animation, video, text and sound in the digital arts and graphic design fields are addressed. Lectures, demonstrations, readings, discussions and application sessions.

Prerequisites: ART 112, ART 114, ART 121 and ART 131.

ART 206 Photography I Credits: 3
An introduction to photography as a means of creative self-expression. The course centers on the technical and aesthetic aspects of the medium. A fully adjustable digital camera is required.

Prerequisites: ART 105 or ART 114.

ART 212 Intermediate Drawing Credits: 3
Continuation of foundation drawing. Emphasis is on gaining technical facility with various drawing mediums and expanding conceptual approaches.

Prerequisites: ART 112.

ART 214 Ceramics I Credits: 3
Introduction to hand-built and wheel forming methods, concept development, ceramic materials, and firing procedures.

Prerequisites: ART 112 or ART 114 or ART 121 or ART 131.
ART 218 Graphic Design I Credits: 3
A beginning level introduction to Graphic Design principles, such as layout, design, concept, basis design theory, graphic design production, and use of industry-level design software and tools.
Prerequisites: ART 112, ART 114, ART 121, and ART 131.

ART 221 Painting I Credits: 3
Exploration of the visual language in paint with continued emphasis on color and design.
Prerequisites: ART 112, ART 114, ART 121 and ART 131.

ART 224 Print Media I Credits: 3
Through hands-on lessons, students will learn a variety of printmaking methods like intaglio, lithography, relief, etc. and approaches to making visual work. Recommended preparation: ART 212.
Prerequisites: ART 112, ART 114, ART 121, ART 131.

ART 230 Fibers I Credits: 3
From altering the surface of fabric to three-dimensional construction, students are taught the basics of fiber arts. This is a hands-on introduction to surface design and soft sculptural hand processes. The course will cover dyeing, shibori, screen-printing, knitting, crochet, and basic sewing. Projects are individualized by expertise, availability of supplies, and students’ own objectives.
Prerequisites: ART 121.

ART 235 Digital Imaging I Credits: 3
This course explores the different ways to connect digital imaging to one’s creative practice. Students will learn advanced imaging techniques in order to develop a consistent artistic voice that reflects personal interests and talents. Conceptual issues of digital media will be explored as they relate to contemporary art making.
Prerequisites: ART 114.

ART 305 Photography II Credits: 3
An advanced course in which students develop a deeper understanding of personal interests, sensibilities and goals as they relate to producing and appreciating creative photography. A fully adjustable digital camera is required.
Prerequisites: ART 106 or ART 206.

ART 309 Print Media II Credits: 3
A continuation of ART 224, this course deepens students’ understanding of the historical conventions of and contemporary approaches to print media. Explores concepts and techniques through material involvement.
Prerequisites: ART 224.

ART 310 Digital Video and Motion Design II Credits: 3
This intermediate to advanced level digital video and motion design course is a continuation of ART 204. This course is intended for studio majors; it addresses advanced techniques of video post-production and motion graphic design. Lectures, demonstrations, readings, discussions, and application sessions. Recommended Preparation: ART 206 and ART 235.
Prerequisites: ART 204.

ART 311 Painting II Credits: 3
Painting in oil or acrylic on the intermediate level with continued emphasis on color.
Prerequisites: ART 221.

ART 312 Figure Drawing I Credits: 3
A study of the structure of the human figure with emphasis on the dynamics of figure movement.
Prerequisites: ART 212.

ART 327 Interactive Media Design Credits: 3
This course will cover the theoretical, social/cultural, and historical contexts of interactive media; the current importance and usages of the web and social media; and explore methods and tools of exploiting the media through the creation of websites, digital publications, and "apps". Students will learn to use and work with development languages such as HTML 3/5, CSS (cascading style sheets), and content management systems (CMS) such as Wordpress. Students should have an understanding of Adobe Photoshop.
Prerequisites: ART 235.

ART 330 Fibers II Credits: 3
Intermediate study of surface design and soft sculptural hand processes. Projects are individualized by expertise, availability of supplies, and students’ own objectives.
Prerequisites: ART 230.
ART 335A Digital Imaging II Credits: 3
This class will strengthen the competence and knowledge of digital imaging techniques. Research, conceptual and verbal abilities within digital image making will be explored. Students will apply new techniques to their personal interests in the studio arts.
Prerequisites: ART 235.

ART 338 Graphic Design II Credits: 3
Intermediate study of graphic design theory, methodology and techniques, stressing a visual approach to problem solving in design, image making techniques, materials, and production processes standard to the industry.
Prerequisites: ART 218 and ART 348.

ART 340 3D Modeling and Animation Credits: 3
This course addresses the usage of virtual three-dimensional modeling and animation in the contemporary art and design fields.
Prerequisites: ART 204.

ART 348 Introduction To Typography Credits: 3
This course explores the formal and applied aspects of typography as tools for design and artistic expression. Focus is on how type relates to art, layout, and design. Both hand produced typography and computer assisted design software will be incorporated.
Prerequisites: ART 112, ART 114, ART 121 and ART 131.

ART 403 Advanced Typography Credits: 3
A continuation of ART 348, this course looks at more sophisticated typographic practice, typographic design theory, and both traditional methods of typographic design and practice such as letterpress and hand type and computer/digital based typography including motion-and time-based media such as web-sites and multimedia.
Prerequisites: ART 348.

ART 405 Practices in the Visual Arts Classroom Credits: 3
Candidates preparing to student teach will master the use of current research in art education, and apply theoretical and practical educational knowledge.
Prerequisites: Permission from SOE advisor required.

ART 406 Advanced Problems In Photography Credits: 3
This course provides students a forum in which the issues and techniques of contemporary photography can be investigated on a rather esoteric level. The format of the course allows for a mutual decision by the instructor and students, dictating which investigations will be pursued during that particular semester. Possible areas of investigation would include, but are not limited to, color photographic theory and practice, non-silver photographic techniques (e.g. Kwikprint, gum bichromate, cyanotype, Van Dyke Brown, etc.), hand coloring techniques, photo-collage, etc.
Prerequisites: ART 305.

ART 411 Painting III Credits: 3
Painting on the intermediate level with a focus on experimentation and developing a personal visual language and expression.
Prerequisites: ART 311.

ART 412 Figure Drawing II Credits: 3
A continuation of ART 312. Drawing on the advanced level with study of the figure in environmental context.
Prerequisites: ART 312.

ART 421 Painting IV Credits: 3
Painting on the advanced level with supervised individual selection of technique and subject matter.
Prerequisites: ART 411.

ART 423WI Design Seminar Credits: 3
Capstone course for studio art majors with a focus on graphic design. Pertinent issues in practice, theory and history of design will be examined through selected readings, slide presentations and invited speakers. A research paper/presentation on a topic evolving from the discussions will be required. The course will also address resume and portfolio preparation for the design profession. This course is writing intensive.
Prerequisites: ART 338, RooWriter.

ART 430 Graphic Design III Credits: 3
Advanced application of graphic design techniques to complex design problems. The course will stress individualized assignments and portfolio preparation.
Prerequisites: ART 338.

ART 439 Student Design Agency Credits: 3-6
This course operates as a faculty-supervised design agency that works with clients to produce visual marketing materials.
ART 488 Creative Project Development Credits: 3
In this class students evaluate their creative goals and styles, as well as artistic abilities, in relation to their professional aspirations. Specific artistic and appropriate technological skills are developed through projects. Prerequisites: ART 114.

ART 492 Advertising Campaigns Credits: 3
This course focuses on branding, re-branding or development of an identity program, and combines advertising planning with creative execution. Students will learn how to develop advertising/marketing/creative campaign plans for a specific client(s), conceptualize, design and develop all creative aspects including but not limited to logo/identity, copy, advertising, website development, app design, etc., and complete a presentation of the plans/briefs and final creative developments of the plans/briefs and creative to the client(s).
Prerequisites: ART 338 or ART 403.

ART 493 Directed Projects in Studio Art Credits: 1-6
With permission of instructor, advanced students pursue independent research and production of a significant semester-long project. Acceptable for graduate credit with approval.

ART 495 Special Topics in Studio Art Credits: 1-6
In depth exploration of a special topic in Studio Art. Course may be repeated if topic is unique for each repeated effort. Acceptable for graduate credit with approval.

ART 498Q Special Studies in Art: Internship Credits: 1-6
Advanced students gain invaluable practical experience in a professional setting in the field of art.

ART 499WI Senior Seminar Credits: 3
Capstone course for studio majors in all media. Course addresses contemporary theoretical and practical issues in studio art practice, and prepares students for graduation. Multiple papers, class presentations, and a portfolio preparation are required.
Prerequisites: RooWriter.

ART 5405 Practices in the Visual Arts Classroom Credits: 3
Students preparing to student teach in the spring semester read, reflect on and master the use of current research in art education and study, practice and master the use of general education thoughts of today.

ART 5506 Graduate Photography Credits: 3-6
Photography on the graduate level with individual selection of media and technique. May be repeated up to a total of 15 hours.

ART 5510 Graduate Painting Credits: 3-6
Painting on the graduate level with individual selection of medium and technique. May be repeated up to a total of 15 hours.

ART 5513 Graduate Graphic Design Credits: 3-6
Graphic design on the graduate level with individual selection of medium and technique. May be repeated up to a total of 15 hours.

ART 5515 Graduate Drawing Credits: 3-6
Drawing on the graduate level with individual selection of medium and technique. Student may pursue selected projects on a group or individual basis. May be repeated up to a total of 15 hours.

ART 5520 Graduate Print Media Credits: 3-6
Print media on the graduate level with individual selection of medium and technique.

ART 5540 Graduate Digital Imaging Credits: 3-6
Digital imaging on the graduate level with individual selection of subject and technique. Permission of the department is required.

ART 5550 Graduate Performance Art Credits: 3-6
Performance art on the graduate level with individual selection of medium and technique. May be repeated up to a total of 15 hours.

ART 5576 Graduate Digital Video and Motion Design Credits: 3-6
Digital video and motion design on the graduate level with individual selection of subject and technique. Permission of the department is required.

ART 5588 Graduate Studio Art Seminar Credits: 3
Studio art seminar for graduate students in any medium. Course will focus on professional practices, as well as the development of a sustainable artistic career. Individual artistic production and shared critiques will be required.
Prerequisites: Studio Art Graduate Students or permission of Art Graduate Advisor

ART 5591 Directed Technical Studies Credits: 2-4
Individually directed studies or research in selected projects of a technical nature in studio art. May be repeated up to a total of six hours applicable to a degree program.

ART 5599 Research And Thesis Credits: 1-9
Production and/or writing of thesis. Usually taken in the last term of candidacy.

ART 5899 Required Graduate Enrollment Credit: 1
Art History Courses

ART-HIST 110 Introduction to the History of Art: Pyramids to Picasso Credits: 3
This is an introduction to the history of art, with in-depth discussions of painting, sculpture, prints, and architecture. Students will be introduced to significant works from major historical periods; their cultural roles, style and composition, and the artistic processes involved in their creation. Emphasis is placed upon Western art history, with attention paid to important interactions with other world traditions, including the arts of Islam, Japan, and Africa. The comprehensive collections of The Nelson-Atkins Museum of Art contribute an important component to the course.

ART-HIST 110 - MOTR ARTS 100: Art Appreciation

ART-HIST 201 From Cave Paintings to Cathedrals Credits: 3
Students will learn to analyze and place in an art historical context Western art and architecture from approximately 35,000 BCE to 1250 CE. Art and architecture from all relevant cultures and religions - pagan, Christian, and Islamic - will be covered; particular emphasis will be placed on the accomplishments of Egyptian and Greek artists.

ART-HIST 201 - MOTR ARTS 101: Art History I

ART-HIST 202 From Michelangelo to Modernism Credits: 3
This course will examine major monuments of Western art and architecture during the late Middle Ages through the Modern period. Art will be examined in its cultural context stressing artistic intent, issues of gender, changing patterns of patronage, and the ascending status of the artist in society.

ART-HIST 202 - MOTR ARTS 102: Art History II

ART-HIST 253 History Of The Designed Environment I, Ancient And Medieval Credits: 3
An overview of developments in architectural, urban, land and interior design which have shaped the physical environment of the Western world from prehistory through the period known as the "Romanesque." Emphasis will be given to relationships between institutions, values and needs of different societies and the architectural forms produced by those societies.

ART-HIST 254 History Of The Designed Environment II, Late Medieval To Modern Credits: 3
An overview of developments in architectural, urban, land and interior design which have had an impact on the physical environment of the Western World from the Gothic era to the beginning of the modern era. A central objective of the course is to gain an understanding of why these developments occurred and how the needs and aspirations of a given time were manifested in physical form.

ART-HIST 255 History Of The Designed Environment III, Modern (1750 To Present) Credits: 3
An overview of developments in architectural, urban, land and interior design which have shaped the physical environment of the Western world during the Modern period. Issues to be explored include renewed interest in archaeology during the eighteenth century, shifts in patronage, the impact of new industrial materials and techniques, demands for an array of new building types, and dilemmas of expression throughout the modern era. Our concerns will broaden and become more global in scope when we examine the twentieth century.

ART-HIST 264 The Grotesque in Art and Culture Credits: 3
This course explores the vibrant and subversive role of the grotesque in the visual arts from 1500 to the present day. The grotesque comprises an alternate image tradition that is often overlooked, or even actively suppressed. This course will explore the distinct strands of the grotesque: witty and inspired improvisation, from Michelangelo to Picasso; rowdy and subversive carnivalesque, from Bruegel to Hogarth to DeKooning; and the monstrous and uncanny, from Bosch to Goya to Kahlo.

ART-HIST 303 World Currents of Contemporary Art Credits: 3
This survey course provides an introduction to the densely interconnected trajectories of contemporary art in different parts of the world. It explores the continuities and discontinuities between modern and contemporary art in the context of intensifying transnational exchanges since the 1960s. Students will become familiar with the intersections of contemporary art with everyday life, mass media, politics and technology.

ART-HIST 315 Arts Of African and New World Cultures Credits: 3
This historical survey of ethnographic arts examines the diasporas of African art and the influences of Africans on the arts of new world cultures (in Brazil, Surinam, Cuba, Haiti, and the United States) and Meso-American art and the influence of Meso-Americans on the arts of the Native North American cultures.

ART-HIST 319 Asian Art Credits: 3
The survey will emphasize the philosophical and cultural context of the arts of India, Southeast Asia, China, Korea and Japan. The course will stress the elements that give an underlying unity to the arts as well as those qualities which distinguish the art of each country as unique.
ART-HIST 330WI Modern Architecture Credits: 3
This class, open to undergraduates from any discipline, explores "Modern Architecture," from c.1850 to the "present," with an emphasis on American architecture and urban design. We explore new building types designed for a new era, including skyscrapers and a range of cultural buildings, emphasizing how they transformed – and continue to transform – our cities and suburbs.
Prerequisites: RooWriter.

ART-HIST 402CC CC: Making the Modern in France: Dance, Art, Music, and Literature Credits: 3
This cluster course will take an interdisciplinary approach to understand the way modernism developed within the arts, with a focus on late-19th, early 20th-century France. Developments in literature, art, dance, and music and their interconnectedness to cultural and historical events will be highlighted and explored.

ART-HIST 415WI Romanticism Credits: 3
Art of the Romantic Era, principally in Europe, from c. 1790 to c. 1860. Consideration is given to the problems of patronage, criticism and stylistic influences.
Prerequisites: Any ART-HIST course, RooWriter.

ART-HIST 416WI Later 19th Century Painting And Sculpture Credits: 3
From Realism through Post-Impressionism. A study of art, principally in Europe, from c. 1850 to c. 1905, with consideration given to factors influencing stylistic changes during this period.
Prerequisites: Any ART-HIST course, RooWriter.

ART-HIST 421 Made in the USA: Latinx Art and Experience Credits: 3
This course focuses on art of and by members of the U.S. Latinx community. Students in this course will engage with the politics of representation, gender, sexuality, race, class, and ethnicity in Latinx art, as well as visual and popular culture.

ART-HIST 429WI American Painting And Sculpture Credits: 3
A study of the history of painting and sculpture, and other figurative arts, from earliest colonial times to the present. Emphasis will be placed on those artists who illuminate the major achievements in American art, and also the ongoing role played by European training and tradition.
Prerequisites: Any ART-HIST, RooWriter.

ART-HIST 439WI Paris in the Age of the Rococo Credits: 3
In the early 18th century, Paris overtook Rome as the artistic center of Europe. We explore all of the visual arts during the vibrant "Rococo," the age of Watteau, Chardin, and Boucher.
Prerequisites: RooWriter; ART-HIST 110 or ART-HIST 202.

ART-HIST 440WI French Art: Renaissance And Baroque Credits: 3
A history of French art from the time of Louis XII through the Age of Louis XIV, with emphasis on painting and architecture.
Prerequisites: Any ART-HIST course, RooWriter.

ART-HIST 441WI Northern Baroque: The Age Of Rubens, Rembrandt And Wren Credits: 3
The arts of England and the Low Countries in the 17th and early 18th centuries. Emphasis on painting and the graphic arts in the Spanish and Dutch Netherlands and on architecture in England.
Prerequisites: Any ART-HIST course, RooWriter.

ART-HIST 443 Meso-American Art Credits: 3
The course will discuss 2500 years of the arts of ancient Mexico and Guatemala. Included is the rise of such important cultures as the Olmec, Maya, and Aztec. Equal emphasis will be placed on the development of elaborate ceremonial centers such as Monte Alban and the Teotihuacan, as well as the ceramic traditions of the West and East coasts of Mexico.
Prerequisites: ART-HIST 315 or BLKS 315.

ART-HIST 445 Northern European Art: 15th And 16th Centuries Credits: 3
A study of panel painting, sculpture and manuscript illumination in Flanders, France, Germany, and Spain from the Hundred Years’ War through the Reformation. Special emphasis will be placed upon the stylistic and iconographic innovations of such major Northern artists as Claus Sluter, Jan van Eyck, Jerome Bosch, Pieter Bruegel, Jean Fouquet and Albrecht Durer. Artistic developments will be presented within the context of changing economic, political, religious and social institutions of the period.
Prerequisites: Any ART-HIST course.

ART-HIST 447WI Italian Baroque: The Age Of Caravaggio, Bernini And Borromini Credits: 3
Painting, sculpture and architecture in Italy from the creation of the Baroque style in the late 16th century to the beginnings of the Barochetto era.
Prerequisites: Any ART-HIST course, RooWriter.
ART-HIST 450 15th Century Italian Art And Architecture Credits: 3
An examination of the visual arts from the International Style and the Early Renaissance to the beginnings of the High Renaissance. Problems of patronage, artistic theory, the Antique, the role of art in humanist circles, and the effect of religious, political and economic developments on the arts will also be discussed.
Prerequisites: Any ART-HIST course.

ART-HIST 452 Greek Art And Architecture Credits: 3
A survey of Greek sculpture, vase painting, and architecture from the third millennium to the first-century B.C. Emphasis will be placed on the relationship of Minoan and Helladic aesthetics, and the connections between late Helladic and Geometric forms, and the nature and development of the classical and baroque styles.
Prerequisites: Any ART-HIST course.

ART-HIST 455 History Of Photography Credits: 3
A survey of the history of photography as a pictorial art; technical developments and the interaction of photography with other arts will be included.
Prerequisites: Any ART-HIST course.

ART-HIST 456 Traditional and Contemporary Native American Arts Credits: 3
This course covers the history of traditional and contemporary Native North American arts, by examining cultural and aesthetic continuities between Meso-American and Native North American Arts. We also explore how Native American arts reflect the history of North America, including influences from Europeans, and conclude with contemporary Native American artists and their incorporation of various global influences.
Prerequisites: ART-HIST 315 or BLKS 315.

ART-HIST 457 History of Modern Design Credits: 3
This course examines innovations in design, beginning with the Arts and Crafts movement in the 19th century, surveying all the major design trends of the twentieth century, and concluding with contemporary developments in the age of the computer.
Prerequisites: Any ART-HIST course.

ART-HIST 458 Primitivism and Its Aftermath Credits: 3
This course explores one of the seminal movements of the modern era and its ramifications for the visual arts today. Class discussions will consider the complexities and contradictions of primitivism of its rejection of modernity. We will look at European artists’ attempts at deliberate regression through their appropriations from archaic, folk, and non-western art traditions, from 1800-on, while also situating these creative endeavors within the cultural and political contexts of the period.
Prerequisites: Any ART-HIST course.

ART-HIST 459 Modern Art & the Grotesque Credits: 3
This course explores how the grotesque shaped the history, practice and theory of art in the nineteenth and twentieth centuries. The grotesque plays a major role in many modern styles, and its expressive possibilities encompass the capriccio, the carnivalesque and burlesque, the fantastic, and the abject and uncanny. Artists have incorporated the grotesque as a means to push beyond established boundaries, explore alternate modes of experience, and to challenge cultural and aesthetic conventions.
Prerequisites: Any ART-HIST course.

ART-HIST 460 Participatory Forms of Spectatorship in Contemporary Art Credits: 3
This course explores art practices from the second half of the 20th century that challenges spectators to become more actively involved in the reception and even in the production of art. The course will examine the socio-political conditions and technological developments which have contributed to the strengthening of participatory tendencies in contemporary art.
Prerequisites: ART-HIST 303.

ART-HIST 461 Sensing, Feeling, Thinking: Contemporary Art and the Mind Credits: 3
Contemporary artists are challenging viewers to reflect on how they perceive, feel and think. This seminar provides an introduction to the mental processes underlying emotion and visual cognition and familiarizes students with contemporary art practices that reveal the dynamic correlations between body, mind and subjectivity.
Prerequisites: ART-HIST 303.

ART-HIST 462 Art Museums: History and Practice Credits: 3
This course will familiarize students with the history of art museums and collecting practices. It will cover theories of museum government, curating, and object interpretation. Students will explore changes in the functions of art museums and will develop practical skills for future museum employment.
Prerequisites: ART-HIST 202 or ART-HIST 303.

ART-HIST 463 Visual Arts Administration Credits: 3
This course on professional arts administration includes assignments in: copyright laws, database management, ethics issues, evaluation design, gallery museum management, grant writing and budgeting, public relations, resume design, tax laws, and website design and management. Students are required to learn relevant computer programs. Open to music and theatre majors.
Prerequisites: Junior or Senior Standing.
ART-HIST 476 Site-Specific Art: Within and Beyond the Museum Walls Credits: 3
At a time of increased transnational mobility, contemporary artists are conceiving artworks that catalyze an enhanced awareness of the geographical and socio-political conditions of existence and art making. This seminar examines artworks that are produced outside the studio and are inspired by specific natural environments, museum settings and public spaces.
Prerequisites: ART-HIST 303.

ART-HIST 477 Contemporary Artists of the African Diaspora Credits: 3
This course examines cultural and aesthetic continuities between traditional and contemporary arts and artists in Africa and in the Americas, including the study of contemporary Africans whose cultures had the greatest influence in the Americas as well as contemporary African-American artists in Brazil, Cuba, Haiti, and the United States.
Prerequisites: ART-HIST 315 or BLKS 315.

ART-HIST 478 Pompeii and Herculaneum: The Archaeology of the Roman World Credits: 3
This course offers insights into the art, architecture, politics, economics, religions and social life of the Roman world through the study of Pompeii and Herculaneum.

ART-HIST 479 From the Parthenon to the Altar of Peace Credits: 3
The course centers on the many different styles of Greek and Roman art from the fifth century B.C. to the early first century A.D. Attention is also paid to the political and literary forces behind its imagery. Three monuments serve as the pillars upon which the course rests: the Parthenon, Pergamon Altar, and the Ara Pacis. The lessons learned about style, the interaction of politics, literature, and art and the foibles of scholarship are intended to be applied to other fields of art history.
Prerequisites: Any ART-HIST course.

ART-HIST 482 Scope & Methods Of Art History Credits: 3
An exploration of the discipline of art history, including theoretical issues, guiding questions and problems, diverse approaches (historical and current), and research tools. The undergraduate capstone course for art history majors.
Prerequisites: Senior standing.

ART-HIST 493 Directed Studies in Art History Credits: 1-6
With permission of instructor, advanced students pursue independent research and production of a significant semester-long research project. Acceptable for graduate credit with approval.

ART-HIST 495 Special Topics in Art History Credits: 1-6
In depth exploration of a special topic in Art History. Course may be repeated for up to 18 credit hours if topic is unique for each repeated effort. Acceptable for graduate credit with approval.

ART-HIST 497Q Special Studies in Art History: Internship Credits: 1-6
Advanced art history students gain invaluable practical experience in a professional setting in the field of art.

ART-HIST 5501 Scope And Methods Of Art History Credits: 3
An exploration of the discipline of art history, including theoretical issues, guiding questions and problems, diverse approaches (historical and current), and research tools. Required of all Art History graduate students and best taken early in one’s studies.

ART-HIST 5539 Paris in the Age of Rococo Credits: 3
In the early 18th century, Paris overtook Rome as the artistic center of Europe. We explore all of the visual arts during the vibrant "Rococo," the age of Watteau, Chardin, and Boucher.

ART-HIST 5540 Seminar in French Art: Renaissance and Baroque Credits: 3
A history of French art from the time of Louis XII through the Age of Louis XIV, with emphasis on painting and architecture.

ART-HIST 5541 Seminar in Northern Baroque Art: The Age of Rubens, Rembrandt, and Wren Credits: 3
The arts of England and the Low Countries in the 17th and early 18th centuries. Emphasis on painting and the graphic arts in the Spanish and Dutch Netherlands, and on architecture in England.

ART-HIST 5547 Seminar in Italian Baroque Art: The Age of Caravaggio, Bernini, and Borromini Credits: 3
Painting, sculpture, and architecture in Italy from the creation of the Baroque style in the late 16th century to the beginnings of the Barochetto era.

ART-HIST 5548 Seminar in Span Art: El Greco to Goya Credits: 3
A study of Spanish art from the later 15th Century to the Napoleonic invasion.

ART-HIST 5561 Traditional and Contemporary Native American Art Credits: 3
This course aims to inspire students to appreciate the history and aesthetics of traditional and contemporary Native North American arts. We examine cultural and aesthetic continuities between Meso-American and Native North American Arts. Then we explore how Native American arts reflect the history of North America, including influences from Europeans, and conclude with contemporary Native American artists and their incorporation of various global influences.

ART-HIST 5562 History of Modern Design Credits: 3
This course examines innovations in design, beginning with the Arts and Crafts movement in the 19th century, surveying all the major design trends of the twentieth century, and concluding with contemporary developments in the age of the computer.
ART-HIST 5563 Primitivism and Its Aftermath Credits: 3
This course explores one of the seminal movements of the modern era and its ramifications for the visual arts today. Class discussions will consider the complexities and contradictions of primitivism and its rejection through their appropriations from archaic, folk, and non-western art traditions, from 1800-on, while also situating these creative endeavors within the cultural and political contexts of the period.

ART-HIST 5564 Modern Art and the Grotesque Credits: 3
The course explores how the grotesque shaped the history, practice and theory of art in the nineteenth and twentieth centuries. The grotesque plays a major role in many modern styles, and its expressive possibilities encompass the capriccio, the carnivalesque and burlesque, the fantastic, and the abject and uncanny. Artists have incorporated the grotesque as a means to push beyond established boundaries, explore alternate modes of experience, and to challenge cultural and aesthetic conventions.

ART-HIST 5565 Seminar In American Art Credits: 3
Graduate-level seminar dealing with an announced area in American art. May be repeated once, provided there is a change in the area of concentration.

ART-HIST 5566 Seminar In 19th-Century Art Credits: 3
Graduate-level seminar dealing with an announced area in 19th-century art. May be repeated once, provided there is a change in the area of concentration.

ART-HIST 5567 Seminar In 20th-Century Art Credits: 3
Graduate-level seminar dealing with an announced area in 20th-century art. May be repeated once, provided there is a change in the area of concentration.

ART-HIST 5568 Participatory Forms of Spectatorship in Contemporary Art Credits: 3
This course explores art practices from the second half of the 20th century that challenge spectators to become more actively involved in the reception and even in the production of art. The course will examine the sociopolitical conditions and technological developments which have contributed to the strengthening of participatory tendencies in contemporary art.

ART-HIST 5569 Sensing, Feeling, Thinking: Contemporary Art and the Mind Credits: 3
Contemporary artists are challenging viewers to reflect on how they perceive, feel and think. This seminar provides an introduction to the mental processes underlying emotion and visual cognition and familiarizes students with contemporary art practices that reveal the dynamic correlations between body, mind and subjectivity.

ART-HIST 5570 Seminar In Renaissance Art Credits: 3
Graduate-level seminar dealing with an announced area in Renaissance art. May be repeated once, provided there is a change in the area of concentration.

ART-HIST 5571 Seminar In Art Of Africa, Oceania And New World Cultures Credits: 3
Seminar in art of Africa, oceania and new world cultures. May be repeated once, provided there is a change in the area of concentration.

ART-HIST 5572 Seminar In Asian Art Credits: 3
Seminar dealing with an announced area in Asian Art. May be repeated once, provided there is a change in the area of concentration.

ART-HIST 5573 Visual Arts Administration Credits: 3
This course on professional arts administration includes assignments in: copyright laws, database management, ethics issues, evaluation design, gallery museum management, grant writing and budgeting, public relations, resume design, tax laws, and website design and management. Students are required to learn relevant computer programs. This course is also open to music and theatre majors. Research requirements for graduate credit are more comprehensive and professional.

ART-HIST 5575 Seminar In Baroque Art Credits: 3
Graduate-level seminar dealing with an announced area in Baroque art. May be repeated once, provided there is a change in the area of concentration.

ART-HIST 5576 Site-Specific Art: Within and Beyond the Museum Walls Credits: 3
At a time of increased transnational mobility, contemporary artists are conceiving artworks that catalyze an enhanced awareness of the geographical and socio-political conditions of existence and art making. This seminar examines artworks that are produced outside the studio and are inspired by specific natural environments, museum settings and public spaces.

ART-HIST 5577 Contemporary Artists of the African Diaspora Credits: 3
This course examines cultural and aesthetic continuities between traditional and contemporary arts and artists in Africa and in the Americas, including the study of contemporary Africans whose cultures had the greatest influence in the Americas, as well as contemporary African-American artists in Brazil, Cuba, Haiti, and the United States.

ART-HIST 5579 From the Parthenon to the Altar of Peace Credits: 3
The course centers on the many different styles of Greek and Roman art from the fifth century B.C. to the early first century A.D. Attention is also paid to the political and literary forces behind its imagery. Three monuments serve as the pillars upon which the course rests: the Parthenon, Pergamon Altar, and the Ara Pacis. The lessons learned about style, the interaction of politics, literature, and art and the foibles of scholarship are intended to be applied to other fields of art history.
ART-HIST 5580 Art Museums: History and Practice Credits: 3
This course will familiarize students with the history of art museums and collecting practices. It will cover theories of museum government, curating, and object interpretation. Students will explore changes in the functions of art museums and will develop practical skills for future museum employment.

ART-HIST 5590 Directed Studies In Art History Credits: 1-6
Individually directed studies or research in selected topics or problems in art history. May be repeated up to a total of six hours applicable to a degree program.

ART-HIST 5599 Research & Thesis Credits: 1-9
Production and/or writing of thesis. Usually taken in the last term of candidacy.

ART-HIST 5699 Research And Dissertation Credits: 1-12
Dissertation Research and writing in Art History.
Bachelor of Arts: Art History

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

- Have a basic knowledge of both Western and Non-Western art history.
- Cultivate aesthetic understanding and a life-long enthusiasm for history and the arts.
- Develop skills and perspectives to understand art and architecture as complex cultural products.
- Develop effective writing skills.
- Be able to understand the context of information contained in scholarly publications.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
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<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
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<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
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Focus A (Satisfied in program requirements below)
Focus B (Satisfied in program requirements below)
Focus C (May be satisfied by Constitution course requirement below)
Focus Elective (Satisfied in program requirements below)

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 18

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
**Constitution Course Requirement**

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

**College of Arts & Sciences Degree Requirements**

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arts and Humanities Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Science and Math Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Foreign Language (3rd Semester Level)</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course)</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>Laboratory Science Experience</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>34</td>
</tr>
</tbody>
</table>

1 ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

2 This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

**Major Requirements**

Students graduating with a B.A. degree in Art History will be prepared for entry into a graduate program or the job market.

Formal study of Art History begins with introductory survey courses. There are two courses in Western art (ART-HIST 201 and ART-HIST 202), a survey in contemporary art (ART-HIST 303), and two in non-Western art (ART-HIST 315 and ART-HIST 319). There are no prerequisites for these courses. Students are encouraged to take the survey sequence in Western art sequentially, if possible.
Lectures are intermediate-level courses and are assigned 400-level numbers. Seminars are advanced-level courses and are assigned 400- and 5000-level numbers. The prerequisite for these courses is the relevant survey course, or permission of the instructor.

Directed Study (ART-HIST 493) and Internship courses (ART-HIST 497Q) may also help fulfill Art History Electives with the approval of an Art History advisor. Enrollment in these courses is granted only by the instructor who will supervise the study.

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two Western Surveys:</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>ART-HIST 201</td>
<td>From Cave Paintings to Cathedrals (Focus A)</td>
<td></td>
</tr>
<tr>
<td>ART-HIST 202</td>
<td>From Michelangelo to Modernism (Focus A)</td>
<td></td>
</tr>
<tr>
<td>Contemporary Survey:</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ART-HIST 303</td>
<td>World Currents of Contemporary Art (Focus A)</td>
<td></td>
</tr>
<tr>
<td>Two non-Western courses (typically 300-level or above): 1</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>ART-HIST 315</td>
<td>Arts Of African and New World Cultures</td>
<td></td>
</tr>
<tr>
<td>ART-HIST 319</td>
<td>Asian Art</td>
<td></td>
</tr>
<tr>
<td>At least six 400-level courses in at least two different art historical areas, chosen in consultation with department advisor.</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>ART-HIST 463</td>
<td>Primitivism and Its Aftermath</td>
<td></td>
</tr>
<tr>
<td>ART-HIST 464</td>
<td>Modern Art &amp; the Grotesque</td>
<td></td>
</tr>
<tr>
<td>ART-HIST 468</td>
<td>Participatory Forms of Spectatorship in Contemporary Art</td>
<td></td>
</tr>
<tr>
<td>ART-HIST 469</td>
<td>Sensing, Feeling, Thinking: Contemporary Art and the Mind</td>
<td></td>
</tr>
<tr>
<td>ART-HIST 495</td>
<td>Special Topics in Art History</td>
<td></td>
</tr>
<tr>
<td>At least three studio arts courses. Recommended classes include:</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>ART 112</td>
<td>Foundation Drawing</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Foundation Digital Design</td>
<td></td>
</tr>
<tr>
<td>ART 206</td>
<td>Photography I</td>
<td></td>
</tr>
<tr>
<td>ART 235</td>
<td>Digital Imaging I</td>
<td></td>
</tr>
<tr>
<td>Capstone Course:</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ART-HIST 482</td>
<td>Scope &amp; Methods Of Art History</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>45</td>
</tr>
</tbody>
</table>

1. A 400-level course in non-Western art can count for this requirement OR towards the six 400-level courses requirement, but not both.

**General Electives**

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>20</td>
</tr>
</tbody>
</table>

**Minimum GPA: 2.5**

**Total Credit Hours: 120**

**Tools for Planning and Fulfilling Academic Requirements**

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/plannymdegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.
UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Arts: Studio Art

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

- Have the basic skills for the practice of art in one or more specialized disciplines.
- Develop creative, conceptual and technical skills in a variety of visual media to produce work that can effectively contribute to the larger creative community.
- Develop professional skills appropriate to the discipline, including awareness of the latest advances in adapting technology for the creation of works of art, including appropriate software and hardware skills.
- Communicate ideas visually, verbally, and through the written word.
- Recognize and understand the relevance of global art history to the current practice of art.

Program Requirements

Students graduating with a B.A. degree in Studio Art will be prepared for entry into a professional school, a graduate program or the job market.

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>Focus B</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>Focus C</td>
<td>(May be satisfied by Constitution course requirement below)</td>
<td></td>
</tr>
<tr>
<td>Focus Elective</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
</tbody>
</table>

'Total credits’ in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 18

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Choose one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td></td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Arts and Humanities Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Science and Math Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Foreign Language (3rd Semester Level)</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course)</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>Laboratory Science Experience</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 31

1 ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.
2 This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

Major Requirements

Formal study in Studio Art begins with foundation courses: ART 112, ART 114, ART 121, and ART 131. There are no prerequisites for these courses and non-majors and exploratory students are also encouraged to take foundation courses. They cannot be taken for graduate credit.

Intermediate and advanced courses typically require the foundation series and possibly other prerequisites. ART 495: Special Topics may be offered that can count towards the Studio Electives. Recent Special Topics include screenprinting, art book publishing, and advertising campaigns (with Communication Studies).
Directed Projects (ART 493) and Internship courses (ART 498Q) may also help fulfill Studio Electives with the approval of a Studio Art advisor. Enrollment in these courses is granted only by the instructor who will supervise the study. Graduate credit is possible only when a student is admitted to graduate study.

Another important part of the Studio Art program is the Junior Portfolio Reviews that happen each spring semester. Students gather around 10 of their strongest pieces to present to a group of faculty and guests for a comprehensive critique of their work with suggestions for areas of growth, classes to take before graduating, and more. Many students benefit from this process so much that they do it again as a senior.

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Foundation Courses</strong></td>
<td></td>
</tr>
<tr>
<td>ART 112</td>
<td>Foundation Drawing</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Foundation Digital Design</td>
<td></td>
</tr>
<tr>
<td>ART 121</td>
<td>Foundation 2D Design</td>
<td></td>
</tr>
<tr>
<td>ART 131</td>
<td>Foundation 3D Design</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Studio Electives selected from at least 3 different areas:</strong></td>
<td>24</td>
</tr>
<tr>
<td>ART 499WI</td>
<td>Senior Seminar</td>
<td></td>
</tr>
<tr>
<td>or ART 423WI</td>
<td>Design Seminar</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Capstone:</strong></td>
<td></td>
</tr>
<tr>
<td>ART 499WI</td>
<td>Senior Seminar</td>
<td>3</td>
</tr>
<tr>
<td>or ART 423WI</td>
<td>Design Seminar</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Art History Requirements</strong></td>
<td>12</td>
</tr>
<tr>
<td>ART-HIST 201</td>
<td>From Cave Paintings to Cathedrals</td>
<td></td>
</tr>
<tr>
<td>ART-HIST 202</td>
<td>From Michelangelo to Modernism</td>
<td></td>
</tr>
<tr>
<td>ART-HIST 303</td>
<td>World Currents of Contemporary Art</td>
<td></td>
</tr>
<tr>
<td>ART-HIST 315</td>
<td>Arts Of African and New World Cultures</td>
<td></td>
</tr>
<tr>
<td>ART-HIST 319</td>
<td>Asian Art</td>
<td></td>
</tr>
<tr>
<td></td>
<td>One 400-level Art History course (with appropriate 200- or 300-level prerequisite).</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td>51</td>
</tr>
</tbody>
</table>

1. Up to 6 additional credit hours in Art History can be counted toward the 24 Studio Elective credit hours with preapproval from a studio faculty advisor.

**General Electives**

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Electives</strong></td>
<td>17</td>
</tr>
<tr>
<td></td>
<td><strong>Minimum GPA: 2.0; 2.5 in all studio coursework</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Credit Hours: 120</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Tools for Planning and Fulfilling Academic Requirements**

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Master of Arts: Art History
Applications for Graduate Study
Applications for the M.A. degree in Art History are reviewed continually during the calendar year. However, students must have their applications completed by November 15 for admission for the spring semester and by June 15 for the fall term. To be considered for graduate assistantships (GTAs) and fellowships during the following academic year, and for maximum choice in coursework for the first semester, fall candidates need to have their application submitted by February 1.

How to Apply for the M.A. in Art History:
• To Office of Admissions (http://www.umkc.edu/admissions)
  • Application ($35 online, $45 paper)
  • Transcripts
• To Department of Art & Art History (umkcarthistorygrad@umkc.edu), Attention: Graduate Advisor in Art History
  • Writing Sample
  • Two letters of recommendation
  • Personal statement, addressing: 1) Reason(s) for pursuing admittance into graduate-level study, 2) Reason(s) for choosing UMKC’s Department of Art & Art History as educational institution, 3) Ultimate professional ambitions, and 4) Why you should be selected for the M.A. program.

Art History Classification of Entering Students
Admission to the graduate program in art history requires a B.A. or equivalent degree and sufficient undergraduate study in art history to provide a sound foundation for advanced study. Ideally, this foundation would include a solid grounding in the history of Western art, some study of non-Western art, and sufficient advanced-level work to indicate that a student can succeed in the specialized or topical courses and seminars associated with graduate study. Admission review is done by the graduate advisor in Art History.

The applicant should have, in addition to a good general education in the humanities, 18 to 24 credit hours in art history with a grade-point average of 3.0 or better. Students with fewer hours and/or a restricted exposure to other humanities and fine arts courses, or having inconsistent grades, are eligible for admission to the graduate program on the basis of recent evidence indicating the potential for success, such as performance in 400-level courses, or through papers and exams for courses elsewhere. If there are some deficiencies in preparation that can be met readily by one or two undergraduate survey courses, a student will be admitted to graduate study. However, the survey courses must be taken for undergraduate credit before the student is allowed to take the qualifying examination that is required for advancement to degree candidacy.

Applicants lacking the minimum preparation deemed necessary for admission to graduate-level study in art history may make up their deficiency through enrollment in selected undergraduate courses offered by the department. These will be determined after consultation with a faculty advisor and in all cases must include 400-level work. Progress will be reviewed at the end of each term, and if warranted, reclassification to graduate status will occur prior to the start of the next semester.

Student Learning Outcomes
Students graduating from this program will:
• Demonstrate advanced knowledge of specialized areas of art history.
• Cultivate independent and original thinking.
• Employ comprehensive communication through written, oral, and technological methods.
• Express aesthetic appreciation of art and architecture.
• Explain works of art and architecture as complex cultural products.
• Students graduating with an M.A. in Art History will be prepared for entry into a Ph.D. program or the job market.

Requirements for Graduation
Option I: Non-thesis Option
(33 hours of approved coursework), including:
• ART-HIST 5501: Scope & Methods of Art History (3 hours)
• At least 30 hours of coursework, of which at least six courses (18 hours) must be graduate seminars

Option II: Thesis Option
(30 hours of approved coursework), including:
• ART-HIST 5501: Scope & Methods of Art History (3 hours)
• At least 21 hours of additional coursework, of which four courses (12 hours) must be graduate seminars
• 6 hours of thesis research (ART-HIST 5599 Research and Thesis)
• Students must obtain permission to pursue the thesis option. Permission to do so depends on the quality of the student’s thesis proposal submitted to the Department, the student’s writing skills, and the ability of the Department to supervise the student in the subject area of the proposed thesis topic. An oral defense of the thesis is required. Those students who anticipate further graduate work toward the doctorate are strongly advised to elect the thesis option.

Non-Course Requirements:
• No more than 12 hours of coursework taken at the 400-level
• A minimum G. P. A. of 3.0
• As soon as possible, but no later than after 18 hours are completed, the student will select Option I or II. For students admitted to the Thesis Option, the student will select a thesis committee with the consultation of the Graduate Advisor.
• In either the 30-hour thesis option or the 33-hour non-thesis option, no more than 6 hours of readings, independent study, or directed studies credit (other than thesis hours) may be counted toward the requirements for the M.A. Exceptions may be made for credits granted for professional internships approved by the Department.

Special Requirements
Requirements for Retention
A student must maintain a graduate grade-point average of 3.0. In extenuating circumstances, a student may petition the Department of Art and Art History to be continued as a graduate student for one term (or 6 hours) if the graduate GPA falls below 3.0. The deficiency must be remedied during the approved probationary period if the student is to be continued.

Reading Knowledge in Foreign Language
M.A. students must acquire a reading knowledge of one foreign language considered essential to advanced study in art history before beginning the M.A. thesis. Students are encouraged to acquire this skill as early as possible in their graduate studies, so they may use it in graduate seminars and research papers. This requirement is most often fulfilled by three semesters at the college level, with a grade of B or better in the third semester. Students who believe they have acquired a sufficient reading knowledge, but have not completed three semesters of language training at the college level, may petition the graduate advisor to take a reading exam in that language. Normally, however, three semesters of college-level study are necessary to achieve sufficient mastery.

Thesis
The final requirement for the M.A. degree in Art History is the M.A. thesis, which is normally begun two semesters before a student completes the degree. The thesis is an approved project that demonstrates capacity for independent work of a suitably high level of proficiency, one utilizing the primary sources available on the topic in English and in the foreign language that meets the program requirement, as well as the major relevant secondary sources. This project, selected in conjunction with the thesis advisor most often develops from a seminar paper, and its presentation must conform to the requirements of the School of Graduate Studies.

Summary of Forms
1. Master’s Degree Program of Study – filled out by the student and the graduate advisor/principal advisor in the department.
2. Recommendation for Appointment of Advisor or Supervisor/Examination Committee form – filled out by the student and the graduate advisor in the department.
3. Report of Results of Examination for Master’s Degree Students Form – filled out by the chair of the thesis committee and mailed to the Office of Graduate Records.
4. Intent to Graduate – filled out by the student at the Records Office in the Administrative Center (no faculty signature required)
5. Thesis Review/Examination – filled out by the chair of the thesis committee and mailed to the Office of Graduate Records.
Master of Arts: Studio Art

M.A. in Studio Art Overview

For Studio Art, the UMKC Department of Art and Art History only offers the Master of Arts Degree, which is not the terminal degree in studio art and will not qualify candidates to teach on the University level. The M.A. in studio art has the following emphasis areas: painting, drawing, printmaking, photography, digital imaging, motion design, and graphic design. Most students will take the majority of their coursework as independent study classes under the direction of one faculty member in the graduate student’s area of emphasis. Students must decide which single emphasis area they plan to pursue before they apply for graduate school in the Department of Art and Art History.

Applications for Graduate Study in Studio Art

Application deadline is February 1 for the Fall semester and October 15 for the Spring semester. There is no summer semester admission.

How to Apply:

• To Office of Admissions (http://www.umkc.edu/admissions)
  • Application ($35 online, $45 paper)
  • Transcripts

• To Department of Art & Art History, Attention: Graduate Advisor in Studio Art
  • Portfolio of recent work on CD is with 15-20 images (jpeg/bmp/QT/AVI/Flash)
  • Listing the images’ titles, dates, sizes and media (hard-copy)
  • CV/resume
  • Personal statement, addressing:
    i Reason(s) for pursuing admittance into graduate-level study,
    ii Reason(s) for choosing UMKC’s Department of Art & Art History as educational institution,
    iii Focus of art work,
    iv Ultimate professional ambitions, and
    v Why you should be selected for the M.A. program.
  • Three letters of recommendation from art professionals or professors

Applications are reviewed by a committee of Studio Art faculty.

Student Learning Outcomes

Students graduating from this program will:

• Have an advanced knowledge of a specialized area of studio art.
• Develop creative, conceptual and technical skills in a variety of visual media to produce work that can effectively contribute to the larger creative community.
• Communicate ideas visually, verbally, and through the written word.
• Recognize and understand the relevance of global art history to the current practice of art.
• Develop professional skills.
• Be proficient in adapting technology for the creation of works of art, including computer skills and digital photography.
• Students graduating with an M.A. in Studio Art will be prepared for entry into an M.F.A. program or the job market.

Degree Requirements

A minimum of 36 graduate credit hours is required for the M.A. degree in studio art, including a minimum of six hours of ART 5599, and three courses in Art History on the 400- or 5000-level. Additional courses are determined in consultation with the discipline advisor and the supervising thesis committee. Courses are usually three credit hours each and are offered at both the 400 and 5000 levels. Any course counted as part of the required 36-hour minimum must be taken for credit. Students may take no more than 14 hours of 400-level classes (40 percent of a 36-hour program). Any 400- or 5000-level course taken for graduate credit must be completed with a grade of B- (2.7) or better in order to be counted toward the M.A. degree.

Each student’s program of study is designed in consultation with the lead professor in the primary discipline, who will be their principal art advisor. There is no general distribution requirement within the studio courses taken, but the student’s choice and mix of classes needs to be approved by their art advisor. Courses in disciplines outside the Art and Art History department may be applied toward the degree with the preapproval of the student’s principal art advisor.

Thesis Committee

After completion of an 18 to 21-hour minimum, the student selects a thesis committee. Normally, the faculty member in the student’s major studio discipline is requested to act as chair of the thesis committee in addition to two other faculty members who have been asked by the student to serve
on the committee. The chair of the thesis committee must be on the graduate faculty. Members of the thesis committee may include other studio faculty, an art historian or a faculty member from another department within the University. Typically, all three members of the thesis committee are faculty with whom the student has had some association. At this stage, the thesis chair consults with the student, who then submits a Master’s Degree Program of Study form to the principal graduate advisor. This form is forwarded to the chair of the Department of Art and Art History, the dean of The College of Arts and Sciences and the Graduate Office.

**M.A. Qualifying Exam (Review)**

At some appropriate time after the completion of 18 to 21 hours toward the M.A. degree and before the beginning of the thesis, a review of the student’s studio work by the chosen thesis committee is held. The purpose of this review is to determine the readiness of the student to engage in thesis-level work. For this review, the candidate presents a body of studio work representing both their present accomplishments and the potential for a thesis project. The student will also submit a prospectus for the intended thesis work. In an oral discussion with the thesis committee, student will explain the concept of the thesis and how this work will contribute to their continued art production. The committee will ask questions of the student and assess the progress of the work in order to determine whether the student should be allowed to advance to the final hours of class work leading to thesis. The thesis committee must approve the research plan and has a right to refuse it if the student does not have an available thesis project. If the prospectus is refused, the committee will make suggestions on how to improve the thesis proposal and a second review will be scheduled at a future date. Additional coursework may be recommended.

**Thesis Procedure**

The student plans a body of work to pursue a clearly identified artistic concept in consultation with his/her committee. An Appointment of Thesis Committee form with the names of the student’s committee members is filled out by the student in consultation with the departmental principal graduate studio advisor and sent to the associate dean for graduate studies of the College of Arts and Sciences as well as to the Office of Graduate Faculties and Research. If, at any point during the thesis process, the student’s committee is changed, an updated version of the form must be resubmitted. It is the responsibility of students to notify the principal graduate studio advisor of any changes in the composition of their committee, allowing the proper forms to be corrected.

At the beginning of the final semester of the student’s program of study, he or she must fill out Intent to Graduate form, available online and from the Office of Registration and Records. This form enables the student to be placed on the graduation roll and on a mailing list to receive materials concerning graduation and other important information. If, for some reason, the student does not graduate that semester, he or she is required to file another form the subsequent semester. The deadline for the Intent to Graduate form is listed in the front part of each semester’s catalog of courses.

**Review of Thesis**

(Defense/Public Manifestation of Work)

Upon completion of the thesis body of work, the student presents the work to his or thesis committee for final review and approval. This review must be in the form of a public exhibit or performance. This exhibit can be held in the UMKC Gallery of Art or any other public location within the Kansas City metropolitan area.

**Summary of Forms**

1. Master's Degree Program of Study – filled out by the student and the graduate advisor/principal advisor in the department.
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4. Intent to Graduate – filled out by the student at the Records Office in the Administrative Center (no faculty signature required)
5. Thesis Review/Examination – filled out by the chair of the thesis committee and mailed to the Office of Graduate Records.
Minor in Art and Visual Communication

Student Learning Outcomes

Students graduating from this program will:

- Be able to create basic logos and layouts using digital tools to represent an entity.
- Be able to produce competent photographic imagery that demonstrates both aesthetic and technical abilities.
- Be able to communicate a message visually or use visuals to strengthen a message.
- Be able to articulate stylistic differences or similarities of art and architecture from different periods and/or geographic areas.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Foundation Coursework</td>
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<tr>
<td>ART 105</td>
<td>Introduction To Photography</td>
<td></td>
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<tr>
<td>ART 114</td>
<td>Foundation Digital Design</td>
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<tr>
<td>ART 121</td>
<td>Foundation 2D Design</td>
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<tr>
<td>ART-HIST 110</td>
<td>Introduction to the History of Art: Pyramids to Picasso</td>
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<td>Electives taken at the 300-level or above (Select with Studio Art advisor)</td>
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<td>ART 310</td>
<td>Digital Video and Motion Design II</td>
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<td>ART 488</td>
<td>Creative Project Development</td>
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<td>ART 493</td>
<td>Directed Projects in Studio Art</td>
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<tr>
<td>Special Topics Coursework in Consultation with Advisor</td>
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Total Credits 21

Studio Art majors are not eligible for the Art and Visual Communication minor.
**Minor in Art History**

**Minor in Art History Requirements**

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<thead>
<tr>
<th>Code</th>
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<tr>
<td>ART-HIST 201</td>
<td>From Cave Paintings to Cathedrals</td>
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<tr>
<td>ART-HIST 202</td>
<td>From Michelangelo to Modernism</td>
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<tr>
<td>ART-HIST 303</td>
<td>World Currents of Contemporary Art</td>
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</table>

Additional courses selected with an Art History advisor at the 300- or 400-level. 9

Total Credits 18
# Minor in Studio Art

## Minor in Studio Art Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<td>ART 114</td>
<td>Foundation Digital Design</td>
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<td>ART 121</td>
<td>Foundation 2D Design</td>
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<td>ART 131</td>
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<td>Additional courses selected with a Studio Art advisor</td>
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<td>ART 206</td>
<td>Photography I</td>
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<td>ART 218</td>
<td>Graphic Design I</td>
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<td>ART 221</td>
<td>Painting I</td>
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<td>ART 224</td>
<td>Print Media I</td>
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<tr>
<td>ART 305</td>
<td>Photography II</td>
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<tr>
<td>ART 309</td>
<td>Print Media II</td>
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<tr>
<td>ART 311</td>
<td>Painting II</td>
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<tr>
<td>ART 348</td>
<td>Introduction To Typography</td>
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Total Credits: 21
Bioethics

Online Degree Certificate Program in Bioethics

The Department of Philosophy, in conjunction with the Department of History and the Sirridge Office of Medical Humanities and Bioethics, offers an online graduate certificate program in Bioethics. The program provides a foundation in the history and theory of bioethics, a deeper understanding of healthcare law and policy, and the skills necessary to engage in ethics consultation and case review. Students who complete the program receive training in ethical issues related to clinical care and research involving human subjects.

The goal of the online certificate program in bioethics is to provide health professionals with the knowledge and skills necessary to effectively resolve ethical dilemmas they encounter in clinical practice.

Students working toward an Interdisciplinary Ph.D., Master of Arts in Liberal Studies, or any other UMKC graduate degree program will be able to complete the required courses and receive a graduate level certificate in bioethics. In addition to students completing other degrees at UMKC, students with appropriate academic credentials may apply solely to the certificate program.

Course requirements for the Graduate Certificate in Bioethics (p. 89).

Faculty

Jeremy Garrett, Ph.D., Adjunct Assistant Professor of Philosophy
Clancy Martin, Ph.D., Professor, Department of Philosophy
Lynda Payne, Ph.D., R.N., Sirridge Missouri Endowed Professor in Medical Humanities and Bioethics; Professor, Department of History
Marilyn Pesto, J.D., R.N., Director, Sirridge Office of Medical Humanities and Bioethics
Diane Plantz, M.D., Emergency Department, Children’s Mercy Hospital
Wayne Vaught, Ph.D., Professor of Philosophy, Medicine and Bioethics; Dean, College of Arts and Sciences; Program Director, Online Degree Program in Bioethics
Graduate Certificate in Bioethics

The Department of Philosophy, in conjunction with the Department of History and the Sirridge Office of Medical Humanities and Bioethics, offers an online graduate certificate program in Bioethics. The program provides a foundation in the history and theory of bioethics, a deeper understanding of healthcare law and policy, and the skills necessary to engage in ethics consultation and case review. Students who complete the program receive training in ethical issues related to clinical care and research involving human subjects.

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Students working toward an Interdisciplinary Ph.D., Master of Arts in Liberal Studies, or any other graduate degree program will be able to complete the required courses and receive a graduate level certificate in bioethics. In addition to students completing other degrees at UMKC, students with appropriate academic credentials may apply solely to the certificate program.

Student Learning Outcomes

Students graduating from this program will:

• Identify key historical events in bioethics
• Identify foundational principles of bioethics
• Understand key legal cases and concepts
• Have an understanding of health policy and ethics
• Be able to identify and utilize resources in bioethics
• Be able to effectively identify and resolve ethical conflicts in healthcare

Program Requirements

The certificate program consists of four courses, 3 credit hours each (12 credit hours total). They include PHILOS 5550 History and Philosophy of Bioethics, PHILOS 5551 Healthcare Law and Policy, PHILOS 5552 Clinical Ethics Case Consultation, and PHILOS 5690 Research in Selected Fields: Graduate Study.
Program Description
The UMKC Black Studies Program is an academic unit that holistically investigates the experience, contributions and conditions of African-descent people in the formation and evolution of American society and culture. In accordance with these objectives, our focus extends to an examination of the active role of Africa and the African Diaspora in global society and human culture. The Black Studies Program – through both a social science and a humanities orientation – provides a unique and rich approach to exploring and comprehending the human experience.

The Black Studies Program is focused on the acquisition and dissemination of an instructive body of knowledge. The curriculum prepares students with a critical skill set that will enable them to pursue diverse employment opportunities. The program makes available to students the foundational research for undergraduate, graduate and professional training in the discipline of Black Studies.

The program currently offers undergraduate courses that can lead to a Minor in Black Studies. Students can also obtain an Emphasis Area in Black Studies through the Bachelor of Liberal Arts Program. Black Studies offers students from any graduate discipline coursework toward a Graduate Certificate (p. 99). In addition, coursework is available at the graduate level leading to an Informal Emphasis in Black Studies under the Master of Arts in Liberal Studies Degree (p. 101).

Faculty
Interim Program Director:
Michael K. McDonald, Ph.D.

Program Advisor:
Adrienne Walker Hoard, M.F.A., Ed.D. - Undergraduate & Graduate

Professor(s):
Adrienne Walker Hoard, M.F.A, Ed.D

• Art/Studio Art (Color Theory, African/African American Art), Art Education, African American Art History, and Black Studies.

Associate Professor:
Jacqueline E. Wood, Ph.D.

• Black Studies and English (Drama, Literature, Poetry).

Library Co-Liaison(s):
Tracey Hughes, M.I.S.L.T., M.A.L.S.

• Library Instruction and Reference
Gloria Tibbs, M.L.S.

• Collection Development and Reference

Administrative Assistant:
Patricia C. Charles

Undergraduate
The Black Studies Program at UMKC provides instruction for undergraduate students to develop proficiency in written and oral communications regarding the study of African descent people in the Americas and in the African Diaspora. Our curriculum offers in-depth knowledge regarding an African perspective on political systems, humanities contributions and social science research in higher education. While contributing to the general education requirements of UMKC in both the humanities and the social sciences, our program serves to enhance the global literacy and professional development of our undergraduate populations.

Undergraduate Degrees:
• Bachelor of Liberal Arts: Black Studies Emphasis (p. 95)
Undergraduate Minor:
- Minor in Black Studies (p. 103)

Graduate
The Black Studies Program provides critical skill sets in written and oral communication, research, analysis, theory building, multicultural understanding and global awareness. Through a holistic examination of the African American experience, we are committed to enhancing general education and to promoting professional development as well as the training of scholars in the field.

Graduate Degrees:
- Master of Liberal Studies: Black Studies Informal Emphasis (p. 101)

Graduate Certificates:
- Certificate in Black Studies (p. 99)

Courses
BLKS 201 Global Systems and the Origins of Black American Culture and Institutions Credits: 3
This multidisciplinary course examines global capitalism, European contact with Africa, the development of the African Diaspora, and the origins of Black American institutions and culture. Applying a Black studies perspective, the course explores such themes as cultural and gendered oppression, institutional destabilization, economic dislocation, liberation struggles, and creative impulses and aesthetics and the social and historical experiences of Black people in the Americas.

BLKS 302 Conceptual and Theoretical Foundations in African American Studies Credits: 3
This course will provide an in-depth examination of the theoretical and conceptual parameters of African American studies. We will study the evolution of the field, key scholars and creative intellectuals, and seminal categories of thought.

BLKS 315 Arts of African and New World Cultures Credits: 3
This historical survey of ethnographic arts examines the diasporas of African art and the influences of Africans on the arts of new world cultures (in Brazil, Surinam, Cuba, Haiti, and the United States) and Meso-American art and the influence of Meso-Americans on the arts of the Native North American cultures.

BLKS 320 Critical Health Issues in Black Communities Credits: 3
Beginning with the African context and the opposition of chattel slavery, this course examines social, cultural, and historical factors affecting the health status of African Americans to the present era. It explores a variety of health-related issues including the interplay between environment, biology, and culture; folk and popular health practices; structured inequality and oppression; lifestyle, beliefs and values; and the organization and delivery of health care. Moreover, this course moves well beyond the idea that medical care—its presence, absence, or quality—is the singular or most critical factor determining the health of a people, community, or society. It reveals the importance of social phenomena in disease resistance and health promotion. Historical shifts from the prominence of infectious to chronic diseases; the implications to health of chattel slavery, sharecropping, segregation, poverty, and structured inequality; the relationship between psychosocial factors and disease, i.e. destablized social settings that compromise resistance to disease; environmental racism; and the health status of African Americans as it relates to the organization of work, family structure and function, religious beliefs, the organization of medical care, lifestyle, consumer manipulation, and post-industrial society are major issues addressed by the course.

BLKS 321 The Black Family and Male-Female Relationships Credits: 3
This course examines the historical evolution and current status of the African American family in the United States. Utilizing the African experience as its starting point the course conveys a broad understanding of the role of the family in human survival and progress. We investigate such issues as male-female relationships, sexual practices, dating, marriage, single parenting, the education and socialization of children, and so on. We also examine an array of social and economic issues, including institutionalized inequality, that affects the viability of today's African American family.

BLKS 325 African American Business Development Credits: 3
This course investigates the various challenges to African American business development and entrepreneurship on the United States. We study the lives of successful, pioneering African American businesswomen and men in order to assess how they managed to transcend the barriers of racism and structured inequality. We explore why certain kinds of enterprises emerged among African Americans and why others did not, and we scrutinize the traditional business problems for African Americans of capitalization distribution market penetration, and wealth creation.

BLKS 330 African American Migrations in Literature Credits: 3
The course examines representations of two different trajectories of migration in African American literature: African American journeys from the south to northern and mid-western regions of America, and concurrent migrations of Caribbean people to the US in the early twentieth century.

BLKS 331 African American Literature I Credits: 3
This course provides a survey of African American literature from its beginnings to the Harlem Renaissance of the 1920s and 1930s. Areas of interest will include abolitionist literature (especially slave narratives), turn-of-the-century literature and the Harlem Renaissance. This course will examine any or all of the following literary forms: fiction, poetry, drama, autobiography and essay. It will view African American literature in its historical and cultural contexts.
BLKS 332WI African American Novel Credits: 3
This course will examine the African American novel in the 19th and 20th centuries; the emphasis will be on the period from the 1920s to the present. The novels will be examined in their historical and cultural contexts.
Prerequisites: RooWriter.

BLKS 333 African American Literature II Credits: 3
A survey of African American literature from the end of the Harlem Renaissance to the present, covering a range of authors, texts, and contexts.

BLKS 334 From Field Shout to Hip Hop: African American Poetic Traditions Credits: 3
This course examines the development of African American poetry from its early forms as field shouts, ballads, and blues to present forms including spoken word and hip hop. Includes authors such as Phillis Wheatley, Paul Lawrence Dunbar, Langston Hughes, Gwendolyn Brooks, Tupac Shakur, and Jessica Care Moore.

BLKS 335 Stages Toward Freedom: African American Dramatic Traditions Credits: 3
This course explores the development of African American dramatic traditions from the eighteenth century through the Harlem Renaissance Black Arts Movement, to current postmodernism. Includes authors such as W.W. Brown, Zoran N. Hurston, Amiri Baraka, Sonia Sanchez, August Wilson, Suzan-Lori Parks.

BLKS 337 The Civil Rights Movement in African American Literature Credits: 3
This course examines how African American literature shaped ideas about freedom, rights, citizenship and race in the civil rights movement. It draws on a variety of literary forms—speeches, essays, autobiographies, fiction, drama, poetry and film—to explore the movement’s impact on communities and cultures as well as its various debates and competing visions.

BLKS 338 Women’s Literature in Africa and the African Diaspora Credits: 3
This course is a comparative examination of the variety of literary works produced by women of African descent in the United States, the Caribbean and Africa. Students will explore the cross-cultural implications of texts in light of the intersections of gender, race and class.

BLKS 349 Symbols and Codes from the Diaspora: African American Visual Arts Survey Credits: 3
This course provides an examination of the theoretical and conceptual parameters of African and African American visual aesthetics. Through the writings of key scholars in African American aesthetics, students will study symbolic forms and patterns from various African cultures throughout the Diaspora and investigate formal image categories within African Diaspora visual culture.

BLKS 351 African American Art History: Part I, 1600-1960 Credits: 3
This course presents a comprehensive survey of African American visual art from 1600 through 1960. Critical issues in early American art history highlight the expressions of African American artists and scholars. Students will investigate artistic expressions of this period.

BLKS 403WI Writing for African American Studies Credits: 3
This course instructs students in how to produce advanced knowledge in the field of African American studies. It provides training in the construction of quality research papers for graduate, scholarly, and professional work and exposes students to a wide array of scholarly journals, databases, and authoritative resources in African American studies. Each time the courses taught, students will develop their research around a specific topic defined by the instructor.
Prerequisites: RooWriter.

BLKS 404 Research Seminar Credits: 3
This course introduces the logic, theory, and techniques of empirical research and applies them to African American Studies. It exposes students to a variety of research approaches in order to examine their utility for producing knowledge within the field.

BLKS 410 African American Art History: Part II, 1960-Present Day Credits: 3
This course presents a survey of African American visual arts from 1960 to the present. Visual arts include new media and processes for Diaspora artists. Students investigate contemporary artists within African Diaspora visual culture.

BLKS 458 Slave Narratives: Race, Gender, and Writing Freedom Credits: 3
A truly American, home grown genre and powerful force in the development of American political and social realities, the African American Slave Narrative is an established, recognized influence in the development of African American and American literary history. In this course you will have the opportunity to explore the historical trajectory of the Slave Narrative, looking at early formulations of its structure, purpose and conventions—especially in terms of gender and race, subsequent various permutations, and the eventual development of the Neo-slave Narrative as its resurrection, which adds to the complexity and theoretical impact of the literary autobiography from black perspectives.

BLKS 480 Special Topics/Seminar Credits: 1-3
In-depth exploration of special topics in Black Studies. When available, topics will be announced prior to registration. Course may be repeated for up to six credit hours.

BLKS 490 Directed Study/Research Credits: 1-3
Individual research and learning projects supervised by a faculty member. Course may be repeated for up to six credit hours.

BLKS 496 Internship in Black Studies Credits: 1-3
This Internship course presents an opportunity for undergraduate students to integrate their academic studies in the discipline of Black Studies with community service and engagement. As a student intern within a business or professional organization in the urban Metropolitan community, the student gains critical information about the processes and procedures of this business entity in relation to African American community members.
BLKS 5502 Conceptual and Theoretical Foundations in African American Studies Credits: 3
This course will provide an in-depth examination of the theoretical and conceptual parameters of African American studies. We will study the evolution of the field, key scholars and creative intellectuals, and seminal categories of thought.

BLKS 5503 Writing for African American Studies Credits: 3
This course instructs students in how to produce advanced knowledge in the field of African American studies. It provides training in the construction of quality research papers for graduate, scholarly, and professional work and exposes students to a wide array of scholarly journals, databases, and authoritative resources in African American studies. Each time the course is taught, students will develop their research around a specific topic defined by the instructor.

BLKS 5504 Research Seminar Credits: 3
This course introduces the logic, theory, and techniques of empirical research and applies them to African American Studies. It exposes students to a variety of research approaches in order to examine their utility for producing knowledge within the field.

BLKS 5510 African American Art History: Part II, 1960-Present Day Credits: 3
This course presents a survey of African American visual arts from 1960 to the present. The Black Arts Movement, the Black Aesthetic, mainstream arts institutions and Black collectors are reviewed. Visual arts include new media and processes for Diaspora artists. Students investigate contemporary artists within African Diaspora visual culture.

BLKS 5520 Critical Health Issues in Black Communities Credits: 3
Beginning with the African context and the imposition of chattel slavery, this course examines social, cultural, and historical factors affecting the health status of African Americans to the present era. It explores a variety of health-related issues including the interplay between environment, biology, and culture; folk and popular health practices; structured inequality and oppression; lifestyle, beliefs, and values; and the organization and delivery of health care. Moreover, this course moves well beyond the idea that medical care—its presence, absence, or quality—is the singular or most critical factor determining the health of a people, community, or society. It reveals the importance of social phenomena in disease resistance and health promotion. Historical shifts from the prominence of infectious to chronic diseases; the implications to health of chattel slavery, sharecropping, segregation, poverty, and structures inequality; the relationship between psychosocial factors and disease, i.e. destabilized social settings that compromise resistance to disease; environmental racism; and the health status of African Americans as it relates to the organization of work, family structure and function, religious beliefs, the organization of medical care, lifestyle, consumer manipulation, and post-industrial society are major issues addressed by the course.

BLKS 5521 The Black Family & Male-Female Relationships Credits: 3
The course examines the historical evolution and current status of the African American family in the United States. Utilizing the African experience as its starting point, the course conveys a broad understanding of the role of the family in human survival and progress. We investigate such issues as male-female relationships, sexual practices, dating, marriage, single parenting, the education issues, including institutionalized inequality, that affects the viability of today's African American family.

BLKS 5525 African American Business Development Credits: 3
This course investigates the various challenges to African American business development and entrepreneurship in the United States. We study the lives of successful, pioneering African American businesswomen and men in order to assess how they managed to transcend the barriers of racism and structured inequality. We explore why certain kinds of enterprises emerged among African Americans and why others did not, and we scrutinize the traditional business problems for African Americans of capitalization, distribution, market penetration, and wealth creation.

BLKS 5530 African American Migrations in Literature Credits: 3
The course examines representations of two different trajectories of migration in African American literature: African American journeys from the south to northern and mid-western regions of America, and concurrent migrations of Caribbean people to the US in the early twentieth century.

BLKS 5534 From Field Shout to Hip Hop: African American Poetic Traditions Credits: 3
This course examines the development of African American poetry from its early forms as field shouts, ballads, and blues to present forms including spoken word and hip hop. Includes authors such as Phillis Wheatley, Paul Lawrence Dunbar, Langston Hughes, Gwendolyn Brooks, Tupac Shakur, and Jessica Care Moore.

Cross Listings: ENGLISH 5546: From Field Shout to Hip Hop: African American Poetic Traditions

BLKS 5535 Stages toward Freedom: African American Dramatic Traditions Credits: 3
This course explores the development of African American dramatic traditions from the eighteenth century through the Harlem Renaissance, Black Arts Movement, to current postmodernism. Includes authors such as W.W. Brown, Zora N. Hurston, Amiri Baraka, Sonia Sanchez, August Wilson, Suzan-Lori Parks.

Cross Listings: ENGLISH 5557: Stages toward Freedom: African American Dramatic Traditions

BLKS 5537 The Civil Rights Movement in African American Literature Credits: 3
This course examines how African American literature shaped ideas about freedom, rights, citizenship and race in the civil rights movement. It draws on a variety of literary forms—speeches, essays, autobiographies, fiction, drama, poetry and film—to explore the movement's impact on communities and cultures as well as its various debates and competing visions.

Cross Listings: ENGLISH 5554: The Civil Rights Movement in African American Literature
BLKS 5538 Women's Literature in Africa and the African Diaspora Credits: 3
This course is a comparative examination of the variety of literary works produced by women of African descent in the United States, the Caribbean and Africa. Students will explore the cross-cultural implications of texts in light of the intersections of gender, race and class.

Cross Listings: ENGLISH 5538

BLKS 5539 Slave Narratives: Race, Gender and Writing Freedom Credits: 3
A truly American, home grown genre and powerful force in the development of American political and social realities, the African American Slave Narrative is an established, recognized influence in the development of African American and American literary history. In this course you will have the opportunity to explore the historical trajectory of the Slave Narrative, looking at early formulations of its structure, purpose and conventions—especially in terms of gender and race, subsequent various permutations, and the eventual development of the Neo-slave Narrative as its resurrection, which adds to the complexity and theoretical impact of the literary autobiography from black perspectives.

BLKS 5549 Symbols and Codes from the Diaspora: African American Visual Arts Survey Credits: 3
This course provides an examination of the theoretical and conceptual parameters of African and African American visual aesthetics. Through the writings of key scholars in African American aesthetics, students will study symbolic forms and patterns from various African cultures throughout the Diaspora and investigate formal image categories within African Diaspora visual culture.

BLKS 5551 African American Art History: Part I, 1600-1960 Credits: 3
This course presents a comprehensive survey of African American visual art from 1600 through 1960. Critical issues in early American art history highlight the expressions of African American artists and scholars. The Negro Crafts Movement, New Negro Movement and Harlem Renaissance. Students will investigate artistic expressions of this period.

BLKS 5580 Special Topics/Seminar Credits: 1-3
In-depth exploration of special topics in Black Studies.

BLKS 5590 Directed Study/Research Credits: 1-6
Individual research and learning projects supervised by a faculty member.

BLKS 5596 Internship in Black Studies Credits: 1-6
This Internship course presents an opportunity for graduate students to integrate their academic studies in the discipline of Black Studies with community service and engagement. As a student intern within a business or professional organization in the urban Metropolitan community, the student gains critical information about the processes and procedures of this business entity in relation to African American community members.

BLKS 5599 Research Thesis Credits: 1-6
Individually directed research leading to preparation and completion of a thesis.

BLKS 5699 Research and Dissertation Credits: 1-12
Individually directed research leading to preparation and completion of a doctoral dissertation.

BLKS 5899 Required Graduate Enrollment Credit: 1
Enrollment required during the completion of a thesis/dissertation.
Bachelor of Liberal Arts: Black Studies Emphasis

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

- Analyze the experience, contributions, and condition of African-descent peoples in the evolution and formation of American society and culture.
- Examine the active role of Africa and the African Diaspora in global society and human culture.
- Apply Black Studies curriculum as a critical tool to analyze the human experience generally.
- Compare the breadth and depth of perspectives that give respect and voice to the Black experience.
- Apply social science and humanistic approaches to examine human society and culture.
- Demonstrate professional written and oral communication skills.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I (ANCH 102 Recommended)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Anchor II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Anchor III</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Focus B (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied by the Constitution course requirement below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus Elective</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 24

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1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Choose one of the following:</td>
<td></td>
</tr>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>3</strong></td>
</tr>
</tbody>
</table>

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Addition details are available in the Student Services section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ALEKS Math Placement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Arts and Humanities Division of CAS (Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Science and Math Division of CAS (Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social and Behavioral Sciences Division of CAS (Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course)</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Laboratory Science Experience</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>4</strong></td>
</tr>
</tbody>
</table>

1 ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

2 This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

B.L.A. Requirements with Black Studies Emphasis

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Humanities Area</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Natural Sciences Area</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Social Sciences Area</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>54</strong></td>
</tr>
</tbody>
</table>

The Emphasis Area Requirements outlined below may contribute to completion of BLA distribution requirements above.
Black Studies Emphasis Area Requirements

The emphasis area in Black Studies assists undergraduate students who want to obtain graduate and professional degrees in a variety of fields (master’s degrees, Ph.D.’s, law, public health, counseling, social work, educational administration, business, journalism, social work, medicine, library or information science, public policy, public administration, and so on) where specialized knowledge of the broad-based experiences and perspectives of African descent peoples would be useful. At the same time, students learn skill sets that are applicable to a wide variety of circumstances, which prepare them for entry-level positions in private industry, government, and public or non-profit agencies.

Students must take 30 hours of Black Studies courses to complete the emphasis area in Black Studies under the Bachelor of Liberal Arts Degree. A minimum of 24 hours of Black Studies courses must be at the 300 or 400 level or above. A minimum of 24 credit hours in Black Studies must be earned at UMKC.

Students declaring the Black Studies Emphasis under the Bachelor of Liberal Arts (p. 430) (B.L.A.) must meet with the Black Studies undergraduate advisor (http://cas.umkc.edu/blackstudies/faculty.asp) to begin a plan of study prior to enrolling in courses.

Twelve of the 30 hours of coursework must include the Core Black Studies courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLKS 201</td>
<td>Global Systems and the Origins of Black American Culture and Institutions</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 302</td>
<td>Conceptual and Theoretical Foundations in African American Studies</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 403WI</td>
<td>Writing for African American Studies</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 404</td>
<td>Research Seminar</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 490</td>
<td>Directed Study/Research</td>
<td>3</td>
</tr>
<tr>
<td>or BLKS 496</td>
<td>Internship in Black Studies</td>
<td></td>
</tr>
</tbody>
</table>

Interest Area Electives 15

Total Credits 30

Beyond the 15 hours of required core courses, students may pursue either a Humanities interest area in Literature and Culture or a Social Science interest area in Institutions and Social Process (within the field of Black Studies), two areas already existing as divisions in the B.L.A. degree.

Humanities Interest Area—Literature and Culture (15 credits):

- Under this interest area the Black Studies emphasis will require four courses (12 credits) from the humanities interest area and one course (3 credits) from the social science interest area.

Social Science Interest Area—Institutions and Social Process (15 credits):

- Under this interest area the Black Studies emphasis will require four courses (12 credits) from the social science interest area and one course (3 credits) from the humanities interest area.

Examples of elective undergraduate courses in Black Studies are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLKS 315</td>
<td>Arts of African and New World Cultures (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 320</td>
<td>Critical Health Issues in Black Communities (Social Science Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 321</td>
<td>The Black Family and Male-Female Relationships (Social Science Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 331</td>
<td>African American Literature I (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 332WI</td>
<td>African American Novel (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 333</td>
<td>African American Literature II (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 325</td>
<td>African American Business Development (Social Science Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 334</td>
<td>From Field Shout to Hip Hop: African American Poetic Traditions (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 335</td>
<td>Stages Toward Freedom: African American Dramatic Traditions (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 337</td>
<td>The Civil Rights Movement in African American Literature (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 338</td>
<td>Women’s Literature in Africa and the African Diaspora (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 349</td>
<td>Symbols and Codes from the Diaspora: African American Visual Arts Survey (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 351</td>
<td>African American Art History: Part I, 1600-1960 (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 410</td>
<td>African American Art History: Part II, 1960-Present Day (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 496</td>
<td>Internship in Black Studies (Designate Focus with Adviser)</td>
<td>1-3</td>
</tr>
</tbody>
</table>

Examples of Black Studies, Special Topics BLKS 480 courses with a Humanities Focus are:
Bachelor of Liberal Arts: Black Studies Emphasis

- African American Experience in Literature (1773-1960)
- African American Migrations in Literature
- Contemporary African American Literature
- Film Adaptations in African American Literary Text
- Introduction to Caribbean Literature and Film

Examples of Black Studies, Special Topics BLKS 480 courses with a Social Science Focus are:

- From Vaudeville to Rhythm and Blues
- Hip-Hop's Influence on African Americans and American Society
- Kansas City and the Black Experience
- Race, Class and Justice
- Racial and Ethnic Relations

Students are strongly encouraged to take the remaining 3 hours of coursework as an approved community engagement project/research under Directed Study, BLKS 490 or through Internship, BLKS 496. Because faculty consent is required in order to enroll in the Directed Study or Internship options, students should begin building an academic relationship with the Black Studies faculty member whose academic background can best guide them.

Students cannot earn credit toward the Emphasis Area in Black Studies with a grade below a "C" in a Black Studies course.

To graduate with an Emphasis Area in Black Studies, students must achieve a minimum grade-point average of 2.0 in all courses accepted toward the emphasis area.

For more information on the Black Studies Program, please visit http://cas.umkc.edu/blackstudies/.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0

Total Credit Hours: 120

Tools for Planning and Fulfilling Academic Requirements

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Graduate Certificate in Black Studies

Graduate Certificate in Black Studies:
The Black Studies Program at the University of Missouri-Kansas City offers a graduate certificate in Black Studies. The certificate permits students to augment their graduate and professional work with specialized training in Black Studies.

Black Studies is a liberal arts specialty that typically draws from multiple fields of inquiry. The graduate certificate in Black Studies advances students' awareness of the multidisciplinary and trans-disciplinary character of the field, key theoretical issues that form the parameters of this specialty, and important tools for producing knowledge in Black Studies. The graduate certificate familiarizes students with the expansive character of existing knowledge in Black Studies and shows how this knowledge can be used to understand the human experience generally.

The graduate certificate offers a coherent and focused course of study for any graduate student. The certificate also prepares students to seek advanced degrees with an emphasis on Black Studies if they choose to do so. Applicants seeking to enroll in the graduate certificate may do so as a free-standing option or within a UMKC degree program.

Admission Criteria:
To be admitted to the graduate certificate program in Black Studies, students must be admitted as a graduate student to the University of Missouri-Kansas City and have an overall grade-point average of 3.25. They must have had an acceptable introductory course in the field of Black Studies (which may come from programs or departments of Black Studies, African American Studies, African Studies, Pan African Studies, and the like) from an accredited college or university.

If a student has not had an introductory course in the field, he or she must pass BLKS 201, with a grade of C or better.

Applicants whose undergraduate GPA is less than 3.25 may be considered for admission upon petition to the Graduate Admission Committee for the Black Studies Program.

Prospective students applying for admission must:
1. Complete the online UMKC Graduate Application.
2. Submit official transcripts from an accredited institution showing the awarding of an undergraduate degree. Transcripts are considered official if they are received in a sealed envelope from the institution or sent electronically to the UMKC Office of Admissions (admit@umkc.edu).
3. Provide an Academic Writing Sample.
4. Provide three letters of recommendation to the Black Studies Graduate Admission Committee at the Black Studies Program, 5305 Holmes Road, Kansas City, Missouri 64110

The priority deadline to apply for Fall Semester is March 1. The final deadline to apply for Fall semester is August 1. The deadline to apply for Spring semester is November 1.

Student Learning Outcomes
Students graduating from this program will:

• Demonstrate knowledge of the historical development of African American studies as an academic field.
• Be able to review and evaluate the work of key scholars in the field of African American studies.
• Demonstrate the ability to apply foundational ideas in African American studies in the interpretation of historical, political and social phenomena.

Program Requirements:
To earn the graduate certificate in Black Studies students must complete 18 hours of graduate course work in Black Studies, which does not include BLKS 201. At least 12 hours must be at or above the 5500-level. Students must maintain a 3.0 grade-point average while enrolled. The requirements for the certificate must be completed within two (2) years. Students should seek advising from the Black Studies Program graduate advisor (http://cas.umkc.edu/blackstudies/faculty.asp) prior to beginning a Plan of Study and to make sure they have met the requirements for the certificate.

The 18 hours of course work must include the three core courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLKS 5502</td>
<td>Conceptual and Theoretical Foundations in African American Studies (must be taken during the first year)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5503</td>
<td>Writing for African American Studies (must be taken during the first year)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5504</td>
<td>Research Seminar (must be taken during the final year)</td>
<td>3</td>
</tr>
</tbody>
</table>
Beyond the three required core courses, students must complete **6 hours of electives** in Black Studies, which includes any graduate level course with a Black Studies prefix (BLKS). One elective should be taken in the Humanities Focus and the second in the Social Science Focus.

Examples of elective graduate courses in Black Studies are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLKS 5510</td>
<td>African American Art History: Part II, 1960-Present Day (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5520</td>
<td>Critical Health Issues in Black Communities (Social Science Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5521</td>
<td>The Black Family &amp; Male-Female Relationships (Social Science Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5525</td>
<td>African American Business Development (Social Science Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5530</td>
<td>African American Migrations in Literature (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5534</td>
<td>From Field Shout to Hip Hop: African American Poetic Traditions (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5535</td>
<td>Stages toward Freedom: African American Dramatic Traditions (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5537</td>
<td>The Civil Rights Movement in African American Literature (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5538</td>
<td>Women's Literature in Africa and the African Diaspora (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5539</td>
<td>Slave Narratives: Race, Gender and Writing Freedom (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5549</td>
<td>Symbols and Codes from the Diaspora: African American Visual Arts Survey (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5551</td>
<td>African American Art History: Part I, 1600-1960 (Humanities Focus)</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives may also be **Special Topics courses** (BLKS 5580).

Examples of **Special Topics** (BLKS 5580) courses with a **Humanities Focus** are:

- African American Experience in Literature (1773-1960)
- Contemporary African American Literature
- Film Adaptations in African American Literary Text
- Introduction to Caribbean Literature and Film

Examples of **Special Topics** (BLKS 5580) courses with a **Social Science Focus** are:

- From Vaudeville to Rhythm and Blues
- Hip-Hop’s Influence on African Americans and American Society
- Kansas City and the Black Experience
- Race, Class and Justice
- Racial and Ethnic Relations

Students are strongly encouraged to take the remaining 3 hours as an approved community engagement project/research under **Directed Study** (BLKS 5590) or **Internship** (BLKS 5596). Because faculty consent is required in order to enroll in the Directed Study or Internship options, students should begin building an academic relationship with the Black Studies faculty member whose academic background can best guide them.
Master of Arts in Liberal Studies: Black Studies Informal Emphasis

Admission Requirements:

Students may be admitted to the Informal Emphasis in Black Studies if they have a baccalaureate degree in Black Studies or an equivalent degree from an accredited college or university with an overall grade-point average of 3.25. Applicants whose undergraduate GPA is less than 3.25 may be considered for admission upon petition to the Graduate Admission Committee for the Black Studies Program.

Students who have a baccalaureate degree with an overall GPA of 3.25 or better and who did not major in Black Studies may be conditionally admitted to the Program upon consultation with the program’s graduate advisor (http://cas.umkc.edu/blackstudies/faculty.asp) and enrollment into the Black Studies introductory course, BLKS 201.

Upon satisfactory completion of the above course, the student must receive final approval from the Black Studies Director for full admission to the Informal Emphasis Area.

Prospective students applying for admission must submit, in addition to the UMKC application, the following documents:

1. A “Statement of Purpose” in the form of a personal essay of approximately 1,000 words outlining the focus area the applicant wishes to pursue. The statement should include the student’s reasons for applying to the Program along with their academic plans and goals.
2. An Academic Writing Sample.
3. Three (3) Letters of Recommendation.
4. Official transcripts from an accredited institution showing the awarding of an undergraduate degree. Transcripts are considered official if they are received in a sealed envelope from the institution or sent electronically to the UMKC Office of Admissions (admit@umkc.edu).

These documents (except the UMKC application) should be sent directly to the Master of Arts in Liberal Studies Program. The documents can be sent in print form to: MALS Program, 106 Cockefair Hall, UMKC, 5100 Rockhill Road, Kansas City, MO 64110.

Electronic copies may also be submitted as either Word or PDF attachments to an email to mals@umkc.edu.

Applications that indicate Black Studies as the focus area will be forwarded to the respective program for review by the Graduate Admission Committee for Black Studies.

Prior to submitting an application, prospective students should speak with the Black Studies graduate advisor (http://cas.umkc.edu/blackstudies/faculty.asp)

The priority deadline to apply for Fall Semester is March 1. The final deadline to apply for Fall semester is August 1. The deadline to apply for Spring semester is November 1.

Student Learning Outcomes:

1. Demonstrate knowledge of the historical development of African American studies as an academic field.
2. Be able to review and evaluate the work of key scholars in the field of African American studies.
3. Demonstrate the ability to apply foundational ideas in African American studies in the interpretation of historical, political and social phenomena.

Program Requirements:

The degree is a 36 credit hour program. Students who elect to participate in the Black Studies Informal Emphasis area should begin by enrolling in the Black Studies core courses, BLKS 5502 and BLKS 5503 (fulfills MALS introductory seminar requirement) and during their last year of the program, students should enroll in BLKS 5504 (fulfills MALS capstone seminar requirement).

Thesis Option

A written thesis is not required, however students who have a particular interest that lends itself to detailed research are especially encouraged to consider the thesis option. Students who wish to complete a thesis project may apply three credit hours from BLKS 5599 toward their degree requirements. With the thesis option, the students must select a Black Studies faculty member as their thesis adviser who will direct the plan of study and research.

Plan of Study

Students who elect to earn an Informal Emphasis in Black Studies under the Master of Arts in Liberal Studies Program are strongly encouraged to meet with the Black Studies graduate advisor (http://cas.umkc.edu/blackstudies/faculty.asp), prior to enrolling in courses, in order to begin their plan of study worksheet. Graduate students should complete the three core courses listed below. Please note, that those students who may have taken undergraduate versions of the core courses must complete them at the graduate level.

The three core courses are:
### Master of Arts in Liberal Studies: Black Studies Informal Emphasis

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLKS 5502</td>
<td>Conceptual and Theoretical Foundations in African American Studies (must be taken during the first year)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5503</td>
<td>Writing for African American Studies (must be taken during the first year; fulfills MALS introductory seminar requirement)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5504</td>
<td>Research Seminar (must be taken during the final year; fulfills MALS capstone seminar requirement)</td>
<td>3</td>
</tr>
</tbody>
</table>

Students should work with the Black Studies graduate advisor (http://cas.umkc.edu/blackstudies/faculty.asp), prior to the start of each semester, in order to review their plan of study worksheet and make sure they are accurately fulfilling the additional 27 hours of elective course work that is relevant to the field. Recommended courses include all graduate-level courses with a Black Studies prefix and other courses approved by the Director of the Black Studies Program. Students are encouraged to take elective courses with both humanities and social science focuses.

Examples of elective graduate courses in Black Studies are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLKS 5510</td>
<td>African American Art History: Part II, 1960-Present Day (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5520</td>
<td>Critical Health Issues in Black Communities (Social Science Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5521</td>
<td>The Black Family &amp; Male-Female Relationships (Social Science Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5525</td>
<td>African American Business Development (Social Science Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5530</td>
<td>African American Migrations in Literature (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5534</td>
<td>From Field Shout to Hip Hop: African American Poetic Traditions (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5535</td>
<td>Stages toward Freedom: African American Dramatic Traditions (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5537</td>
<td>The Civil Rights Movement in African American Literature (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5538</td>
<td>Women's Literature in Africa and the African Diaspora (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5539</td>
<td>Slave Narratives: Race, Gender and Writing Freedom (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5549</td>
<td>Symbols and Codes from the Diaspora: African American Visual Arts Survey (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 5551</td>
<td>African American Art History: Part I, 1600-1960 (Humanities Focus)</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives may also be Special Topics (BLKS 5580) or Research and Thesis (BLKS 5599).

Examples of Special Topics courses with a Humanities Focus are:

- African American Experience in Literature (1773-1960)
- Contemporary African American Literature
- Film Adaptations in African American Literary Text
- Introduction to Caribbean Literature and Film

Examples of Special Topics courses with a Social Science Focus are:

- From Vaudeville to Rhythm and Blues
- Hip-Hop's Influence on African Americans and American Society
- Kansas City and the Black Experience
- Race, Class and Justice
- Racial and Ethnic Relations

Students are strongly encouraged to take the remaining 3 hours of course work as an approved community engagement project/research under the Directed Study (BLKS 5590) or through Internship (BLKS 5596). Because faculty consent is required in order to enroll in the Directed Study or Internship options, students should begin building an academic relationship with the Black Studies faculty member whose academic background can best guide them.

For more information on the Master of Arts in Liberal Studies Degree, please click here (p. 434).
Minor in Black Studies

Student Learning Outcomes

Students graduating from this program will:

• Construct knowledge based timeline which outlines evidence of seminal African American contributions to American history and American society.
• Interpret and compare current events and other contexts of human struggle based on their knowledge of historical global systems within the paper collected from core courses.
• Examine the origins and historical experience of Blacks in the Americas from the perspective of several African American scholars.
• Evaluate seminal ideas through researching the works of major scholars in the various disciplines encompassing the canon of African American Studies.
• Create well-written critical responses to articulate and communicate their analyses of course lectures and activities.

Program Requirements:

Students who elect to earn a minor in Black Studies must meet with the Black Studies undergraduate advisor (http://cas.umkc.edu/blackstudies/faculty.asp) to begin a plan of study prior to enrolling in courses toward the minor. There are 18 credit hours of prescribed coursework, of which nine hours must be at the 300- or 400-levels, and a minimum of nine hours must be earned at UMKC.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLKS 201</td>
<td>Global Systems and the Origins of Black American Culture and Institutions</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 302</td>
<td>Conceptual and Theoretical Foundations in African American Studies</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 403WI</td>
<td>Writing for African American Studies</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 404</td>
<td>Research Seminar</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BLKS 315</td>
<td>Arts of African and New World Cultures (Humanities Focus)</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 320</td>
<td>Critical Health Issues in Black Communities (Social Science Focus)</td>
<td></td>
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<tr>
<td>BLKS 321</td>
<td>The Black Family and Male-Female Relationships (Social Science Focus)</td>
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<tr>
<td>BLKS 331</td>
<td>African American Literature I (Humanities Focus)</td>
<td></td>
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<tr>
<td>BLKS 332WI</td>
<td>African American Novel (Humanities Focus)</td>
<td></td>
</tr>
<tr>
<td>BLKS 325</td>
<td>African American Business Development (Social Science Focus)</td>
<td></td>
</tr>
<tr>
<td>BLKS 333</td>
<td>African American Literature II (Humanities Focus)</td>
<td></td>
</tr>
<tr>
<td>BLKS 334</td>
<td>From Field Shout to Hip Hop: African American Poetic Traditions (Humanities Focus)</td>
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<tr>
<td>BLKS 335</td>
<td>Stages Toward Freedom: African American Dramatic Traditions (Humanities Focus)</td>
<td></td>
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<tr>
<td>BLKS 337</td>
<td>The Civil Rights Movement in African American Literature (Humanities Focus)</td>
<td></td>
</tr>
<tr>
<td>BLKS 338</td>
<td>Women’s Literature in Africa and the African Diaspora (Humanities Focus)</td>
<td></td>
</tr>
<tr>
<td>BLKS 349</td>
<td>Symbols and Codes from the Diaspora: African American Visual Arts Survey (Humanities Focus)</td>
<td></td>
</tr>
<tr>
<td>BLKS 351</td>
<td>African American Art History: Part I, 1600-1960 (Humanities Focus)</td>
<td></td>
</tr>
<tr>
<td>BLKS 410</td>
<td>African American Art History: Part II, 1960-Present Day (Humanities Focus)</td>
<td></td>
</tr>
<tr>
<td>Directed Studies or Internship</td>
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<td>3</td>
</tr>
<tr>
<td>BLKS 496</td>
<td>Internship in Black Studies</td>
<td></td>
</tr>
<tr>
<td>or BLKS 490</td>
<td>Directed Study/Research</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

Examples of Black Studies, Special Topics (BLKS 480) courses with a Humanities Focus are:

• African American Experience in Literature (1773-1960)
• African American Migrations in Literature
• Contemporary African American Literature
• Film Adaptations in African American Literary Text
• Introduction to Caribbean Literature and Film

Examples of Black Studies, Special Topics (BLKS 480) courses with a Social Science Focus are:

• From Vaudeville to Rhythm and Blues
• Hip-Hop’s Influence on African Americans and American Society
• Kansas City and the Black Experience
• Race, Class and Justice
• Racial and Ethnic Relations

Students are strongly encouraged to take the remaining 3 hours of coursework as an approved community engagement project/research under Directed Study, BLKS 490 or through Internship, BLKS 496. Because faculty consent is required in order to enroll in the Directed Study or Internship options, students should begin building an academic relationship with the Black Studies faculty member whose academic background can best guide them.

Students wishing to graduate with a Minor in Black Studies must achieve a minimum grade-point average of 2.0 (cannot be below a "C") in Black Studies courses.

To learn more about the Black Studies Program, please click here (http://cas.umkc.edu/blackstudies/default.asp).
Department of Chemistry

Spencer Chemistry Building, Room 205
5009 Rockhill Road
Phone: (816) 235-2273
Fax: (816) 235-5502
umkc-chemdept@umkc.edu
http://cas.umkc.edu/chem

Department Chair:
Kathleen V. Kilway

Professors Emeriti:
John W. Connolly, Henry A. Droll, James R. Durig (Curator’s Professor Emeritus), Peter Groner, Eckhard W. Hellmuth, Y.C. Jerry Jean (Curator’s Distinguished Teaching Professor Emeritus), Peter F. Lott, Layton L. McCoy, Thomas C. Sandreczki, Kenneth S. Schmitz, Timothy F. Thomas, Charles J. Wurrey (Curator’s Distinguished Teaching Professor Emeritus and James C. Olson’s Professor of Chemistry)

Curators’ Professors:
Jerry R. Dias (chemistry), Kathleen V. Kilway (chemistry and chair), Zhonghua Peng (chemistry, principal graduate advisor)

Professors:
Keith R. Buszek, Andrew J. Holder

Associate Professors:
Xiaobo Chen, Nathan Oyler, J. David Van Horn

Assistant Professors:
Shin Moteki

Teaching Professors:
Andrea Drew Gouvev (coordinator of organic chemistry laboratories and undergraduate advisor), Todor K. Gouvev (program director)

Assistant Teaching Professors:
Paul Barron (coordinator of general chemistry laboratories and undergraduate advisor), Lena Hoober-Burkhardt (coordinator of advanced chemistry laboratories and undergraduate advisor)

Department Description
The Department of Chemistry offers programs of study leading to the bachelor of arts, bachelor of science and master of science degrees, and participates in UMKC’s Interdisciplinary Ph.D. program. To the extent that each program is flexible (see degree requirements), it is possible to specialize at the graduate level in the areas of analytical, inorganic, organic, physical or polymer chemistry.

Research Facilities

Major Instrumentation
- Varian Inova 400 MHz NMR spectrometer.
- Bruker 250 MHz NMR spectrometer with solid state probe.
- IBM 200 Electron Spin Resonance Spectrometer.
- AA and ICP-AA spectrophotometers.
- CARY-1 UV-Visible dual beam spectrophotometer.
- Cambridge Structural Database Subscription (Van Horn).
- Raman and Infrared Spectroscopy Lab (Durig).
- Positron Annihilation and Gamma-ray Spectroscopy Lab (Jean).
- ABI Pioneer peptide synthesizer.
- Sprint BioCad liquid chromatography system.
- Finnigan MAT Double Focusing mass spectrometer.

Research Instrumentation
- Ocean Optics UV-Vis-NIR and other UV-Visible spectrophotometers.
- Metrohm Titrando system with "PC Control" software.
- BAS Epsilon electrochemistry apparatus (Peng).
- Shimadzu HPLC (Van Horn).
• Shimadzu RF-5301PC Fluorescence spectrophotometer.
• Perkin Elmer Polarimeter (Buszek).

Support Facilities
• Computer and Electronics Shop.
• Chemical Stores.

On Campus Resources
• Jasco J-710 Circular Dichroism Spectropolarimeter (School of Biological Sciences).
• Varian 600 MHz NMR Spectrometer (School of Biological Sciences, Laity).
• ESI-mass spectrometer and Triple-Quad LC-ESI MS with nanospray adaptor (School of Pharmaceutical Sciences).
• Machine Shop (Department of Physics).

Computer facilities include UMKC’s Academic Research servers using HP’s Itanium technology and numerous personal computers located in the Spencer Chemistry Building and Flarsheim Hall for teaching and research purposes. A computational research laboratory is also housed in the department with a number of high-speed workstations and modern software.

Faculty

Paul M. Barron; assistant teaching professor of chemistry, coordinator of general chemistry laboratories, principal undergraduate advisor; Ph.D. (University of Nebraska).

Keith R. Buszek2,3; professor of chemistry; B.S. (University of California, Irvine); Ph.D. (University of California, Los Angeles).

Xiaobo Chen; associate professor of chemistry; B.S. (Peking University, China); M.S. (Chinese Academy of Sciences); Ph.D. (Case Western Reserve University).

John W. Connolly; professor emeritus of chemistry; B.S. (Xavier University); Ph.D. (Purdue University).

Jerry R. Dias 2,3; curators’ professor of chemistry; B.S. (San Jose State College); Ph.D. (Arizona State University).

Andrea Drew-Gounev; teaching professor of chemistry, coordinator of organic laboratories, principal undergraduate advisor; B.S. Ph.D. (University of South Carolina).

Henry A. Droll; professor emeritus of chemistry; B.S., M.S. (George Washington University); Ph.D. (University of Pennsylvania).

James R. Durig 2,3; curators’ emeritus professor of chemistry and geosciences; B.A. (Washington and Jefferson College); Ph.D. (Massachusetts Institute of Technology).

Todor K. Gounev; teaching professor of chemistry; B.S., M.S. (University of Sophia, Bulgaria); Ph.D. (University of South Carolina).

Peter Groner; retired associate professor of chemistry and director of laboratories; Diploma, Ph.D. (Swiss Federal Polytechnic Institute).

Eckhard W. Hellmuth; professor emeritus of chemistry; B.S., M.S., Ph.D. (University of Marburg, Germany).

Andrew J. Holder 2,3; professor of chemistry; B.S. (Mobile College); Ph.D. (University of Southern Mississippi).

Lena Hoober-Burkhardt; assistant teaching professor of chemistry, coordinator of advanced chemistry laboratories, undergraduate advisor; B.A. (Princeton University); Ph.D. (University of Southern California).

Y. C. Jerry Jean 2,3; curators’ emeritus professor of chemistry and physics; B.S. (Taipei Institute of Technology Taiwan); Ph.D. (Marquette University).

Kathleen V. Kilway 2,3; chair and curators’ teaching professor of chemistry; B.S. (St. Mary’s College); M.S., Ph.D. (University of California-San Diego).

Peter F. Lott; professor emeritus of chemistry; B.S., M.S. (St. Lawrence University); Ph.D. (University of Connecticut).

Layton L. McCoy; professor emeritus of chemistry; B.S., Ph.D. (University of Washington).

Shin Moteki 2,3; assistant professor of chemistry; Ph.D. (University of Nebraska-Lincoln).

Nathan A. Oyler 2,3; associate professor of chemistry; B.S. (University of Arizona); Ph.D. (University of Washington).

Zhonghua Peng 2,3; curators’ professor of chemistry; B.S. (University of Science and Technology of China); M.S. (Chinese Academy of Sciences); Ph.D. (University of Chicago).

Thomas C. Sandreczki 2,3; professor emeritus of chemistry; B.A. (Houghton College); M.S., Ph.D. (University of Rochester).
Undergraduate

Undergraduate Degrees:
- Bachelor of Science: Chemistry (p. 125)
- Bachelor of Arts: Chemistry (p. 115)
- Minor in Chemistry (p. 133)

Career Implication of the Bachelor's Degree

The Department of Chemistry offers two bachelor of science degree programs. Both require a minimum of 43 credit hours of chemistry courses; they are designed for those who want to work in the field of chemistry. The American Chemical Society approved degree is based on the guidelines established by the American Chemical Society (ACS) and specifically requires Organic and Inorganic Synthesis (CHEM 382) and a Biochemistry course (either CHEM 367 or LS BIOCHEM numbered 341 or higher). Many of those receiving the bachelor of science degree have gone on to graduate work, professional schools, and advanced degrees. Others have gone directly into the chemical industry (laboratory assistants).

In contrast, the bachelor of arts degree is more flexible because it requires only a minimum of 26 credit hours of chemistry. The bachelor of arts student is shown a minimum of what chemistry is about. By choosing suitable courses, this degree prepares the individual with the chemical background for work in other areas. Examples include technical librarian, medical technologist, business administration, public health, and sales or advertising in the chemical industry. The majority of students pursuing the bachelor of arts in chemistry do so in preparation for professional schools, such as medicine, dentistry, and pharmacy. The bachelor of arts can also provide a student with a background in chemistry equivalent to that of a bachelor of science, but tailored to the individual's desires.

Teacher Certification in Chemistry

Certification as a middle school (grades 5-9) or secondary (grades 9-12) chemistry teacher in either Kansas or Missouri requires that a student complete specific requirements in biology, chemistry, environmental science, geology, physics and the School of Education. A separate application for teacher education is required. For further information about the program, consult the School of Education section of this catalog or contact the Education Student Services Office at (816) 235-2234.

Admission Requirements

Other than University of Missouri admission requirements, there are no special prerequisites for beginning either the bachelor of arts or the bachelor of science program. High school chemistry and a good working knowledge of algebra and arithmetic are desirable for entering the bachelor of science program. It should be noted that much of the bachelor of science program, and some of the bachelor of arts program, are highly structured in the order which chemistry courses must be taken. It is assumed that transfer students, Associates degree students, and junior college students should have begun the appropriate course sequence in their previous schools. All students are required to consult with the Chemistry Undergraduate Advisor before their registration at UMKC.

Advising

Those seeking either a bachelor of science or a bachelor of arts degree should see one of the Chemistry Department's undergraduate faculty advisors at the earliest possible time. Students who major in Chemistry must see an undergraduate faculty advisor each semester prior to enrolling in courses.

Honors Program

Students with outstanding records of achievement may be eligible to enroll in special honors courses. Such courses are designated by the letter H preceding the course number, or special arrangements can be made with instructors of regular courses. Students enrolled in the special courses should consult with their faculty advisor to arrange for optimal degree planning.
Prerequisites and Co-requisites

A minimum grade of C- or higher is required for all prerequisite and co-requisite courses for all students taking courses within the Department of Chemistry. Additionally, students must be concurrently enrolled in all co-requisite courses. In exceptional cases, students may receive written consent to waive one or both of these requirements from the Chair of the Chemistry Undergraduate Program Committee by completing and submitting a detailed petition form to the Department and only if approval of the petition is granted.

Graduate

Graduate Degrees:

- Master of Science: Chemistry (p. 129)
  - Emphasis areas:
    - Analytical
    - Inorganic
    - Organic
    - Physical
    - Polymer
  - Thesis-Based Option (p. 131)
  - Non-Thesis Option (p. 130)

Graduate Study in Chemistry

Both the Master of Science (MS) degree and interdisciplinary Ph.D. degree with Chemistry as the primary discipline have the basic aim of training students to work independently in chemistry. Both programs train the student through a broad but flexible base of coursework for further education, but the interdisciplinary Ph.D. places a greater emphasis on original research.

Master of Science: Chemistry

The Chemistry Department offers the master of science degree, with an emphasis in analytical, inorganic, organic, physical, or polymer chemistry. Students may complete a M.S. in Chemistry in a Thesis-Based or a Non-Thesis Option. The non-thesis M.S. program has an emphasis on coursework, while the Thesis-Based degree has an emphasis on both coursework and original research. Graduating chemistry M.S. students will be exposed to the most recent advances in chemical sciences. In addition, thesis-based M.S. students will experience the excitement of performing guided research.

Students, who have received a grade of B- (2.7) or better in graduate coursework taken as part of a degree program at another institution, may transfer up to 6 credit hours of this work on approval of a majority of the student's committee. A written request for this approval must be submitted within one year of full admission to the program.

Interdisciplinary Doctor of Philosophy Program: Chemistry

Doctor of philosophy (Ph.D.) programs at UMKC are interdisciplinary. Students desiring to study at the doctoral level in the discipline of chemistry (as the primary unit) must apply to the School of Graduate Studies. Detailed information on the general and discipline-specific admission requirements for the doctoral degree may be found in the Graduate Academic Regulations and Information section of this catalog.

Students pursuing an Interdisciplinary Ph.D. degree, who have selected chemistry as one of their disciplines, should consult the School of Graduate Studies section of this catalog for degree requirements, and other academic regulations applicable to their degree programs. The interdisciplinary Ph.D. with Chemistry as the primary unit has research track only. (For further information on the Interdisciplinary Ph.D. Program, see the chemistry discipline within the School of Graduate Studies section of this catalog.)

Courses

CHEM 111 Physical Basis Of Chemistry Credits: 3
An introductory course in the basic principles applicable to chemistry for students who intend to take but are not adequately prepared to take CHEM 211. The emphasis is on quantitative relationships and problem solving.

CHEM 115 Elements Of Chemistry I Credits: 4
A one-term course in general chemistry with special emphasis on organic chemistry and biochemistry. A terminal course that does not meet requirements as a prerequisite for any higher level chemistry course.

Co-requisites: CHEM 115L.

CHEM 115 - MOTR CHEM 100L: Essentials in Chemistry with Lab
CHEM 115L Elements Of Chemistry, Laboratory I Credit: 1
A one-term course in general chemistry with special emphasis on organic chemistry and biochemistry. A terminal course that does not meet requirements as a prerequisite for any higher level chemistry course.

Co-requisites: CHEM 115.

CHEM 115L - MOTR CHEM 100L: Essentials in Chemistry with Lab

CHEM 160 Chemistry, Society, And The Environment Credits: 3
This course is intended to offer a survey of chemical and scientific concepts surrounding current issues. The emphasis will be on the application of fundamental chemical knowledge to allow a full understanding of these issues in the context of currently known facts and theories. Through classroom discussion and application of the scientific method, the ramifications of the issues will be examined. Topics will include pollution, the importance of the chemical industry, its responsibilities to society, and other items of current scientific and environmental interest.

CHEM 160 - MOTR CHEM 100L: Essentials in Chemistry with Lab

CHEM 160L Laboratory For Chemistry, Society, And The Environment Credit: 1
This course is offered in support of CHEM 160. It will consist of field activities, experiments, and demonstrations to reinforce the concepts and ideas presented in that course.

CHEM 160L - MOTR CHEM 100L: Essentials in Chemistry with Lab

CHEM 180P Basic Chemistry Credits: 4
A one-semester survey of basic chemistry including: atomic structure, the periodic table, chemical bonding, chemical reactions, and selected topics from organic, polymer and biochemistry. A terminal course that does not meet requirements as a prerequisite for any higher level chemistry course.

Prerequisites: MATH 110 or equivalent.

Corequisite: CHEM 181P.

Cross Listings: CHEM 115.

CHEM 180P - MOTR CHEM 100L: Essentials in Chemistry with Lab

CHEM 181P Experimental Basic Chemistry Credits: 4
A demonstration/laboratory course designed to support and illustrate the concepts presented in Chemistry 180P. A terminal course that does not meet requirements as a prerequisite for any higher level chemistry course.

Prerequisites: MATH 110 or equivalent.

Co-requisites: CHEM 180P.

Cross Listings: CHEM 115L.

CHEM 182P Special Projects In Chemistry Credits: 4
An independent study course consisting of library work and field work designed to exemplify various applied aspects of chemistry. A terminal course that does not meet requirements as a prerequisite for any higher level chemistry course.

Prerequisites: MATH 110 or equivalent.

Co-requisites: CHEM 180P.

CHEM 206 Human Nutrition Credits: 3
Introduction to nutrition for health and wellness and the use of chemical energy in the breakdown and synthesis of biomolecules. Nutrition as it applies to a variety of life situations from infancy to older adults. Learning encompasses elements of anatomy and physiology related to nutrition and health.

CHEM 206 - MOTR LIFS 100: Essentials in Human Biology
CHEM 211 General Chemistry I Credits: 4
Stoichiometry, gas laws, thermochemistry, atomic structure, molecular shapes and bonding theories. Recommended preparation: working knowledge of College Algebra.

CHEM 211 - MOTR CHEM 150L: Chemistry I with Lab

CHEM 211L Experimental General Chemistry I Credit: 1
Introduction to the laboratory techniques used in studying the chemical properties of substances. Some quantitative techniques are included.

Co-requisites: CHEM 211.

CHEM 211L - MOTR CHEM 150L: Chemistry I with Lab

CHEM 212LR Experimental General Chemistry II Credit: 1
Introduction to analysis and synthesis. Descriptive chemistry of the more common elements.

Co-requisites: CHEM 212R.

CHEM 212R General Chemistry II Credits: 4
Liquids and solids, solutions, equilibrium, kinetics, electrochemistry and thermodynamics. Introductory course to all advanced work in chemistry.

Prerequisites: CHEM 211 and CHEM 211L (each with a C- or better).

Co-requisites: CHEM 212LR.

CHEM 2YC Chemistry Elective LE Credits: 99
Transfer credit

CHEM 311 Laboratory Safety And Health I Credit: 1
An introduction to laboratory safety and health. Topics to be discussed include good laboratory practice; laboratory hazards; safe chemical handling, storage and disposal; first aid; protective equipment; and federal regulations.

Prerequisites: CHEM 320 or CHEM 321.

CHEM 320 Elementary Organic Chemistry Credits: 4
This one-semester course covers all fundamental principles of organic chemistry, including modern bonding theory, analytical techniques, physical properties, and chemical reactions. This course is designed to satisfy requirements for students in the UMKC Six-Year Medical Program or certain Biology B.A. majors. This course is not recommended for pre-medical, pre-dental, pre-pharmacy or other pre-health students.

Prerequisites: CHEM 212R and CHEM 212LR (each with a C- or better).

Co-requisites: CHEM 320L.

CHEM 320L Experimental Organic Chemistry Credit: 1
Elementary organic chemistry experiments to teach basic laboratory operations.

Co-requisites: CHEM 320.

CHEM 321 Organic Chemistry I Credits: 3
The two terms (CHEM 321, CHEM 322R) constitute an integrated unit in which the chemistry of aliphatic, aromatic, and some heterocyclic compounds are studied. The study begins with simple monofunctional compounds and ends with polyfunctional natural products.

Prerequisites: CHEM 212R and CHEM 212LR (each with a C- or better).

Co-requisites: CHEM 321L.

CHEM 321L Organic Chemistry Laboratory I Credit: 1
Introduces the student to basic techniques and procedures in isolation, purification, and characterization of organic compounds and simple reactions used in the organic chemistry laboratory. The student will also be trained in the proper way to write a scientific laboratory report.

Co-requisites: CHEM 321.

CHEM 322L Organic Chemistry Laboratory II Credit: 1
CHEM 322L is an extension of CHEM 321L. CHEM 322L builds from the basic techniques, procedures, and writing to more advanced organic operations.

Prerequisites: CHEM 321 and CHEM 321L (or equivalents; each with a C- or better).

Co-requisites: CHEM 322R.
CHEM 322R Organic Chemistry II Credits: 3
Continuation of CHEM 321.
**Prerequisites:** CHEM 321 and CHEM 321L (each with a C- or better).

**Co-requisites:** CHEM 322L.

CHEM 330 Elementary Physical Chemistry Credits: 3
An introductory course in the principles of physical chemistry for students who have not had calculus.
**Prerequisites:** CHEM 220 or CHEM 250; CHEM 320 or CHEM 322R (each with a C- or better).

CHEM 341 Analytical Chemistry I: Quantitative Analysis Credits: 4
Principles of gravimetric, volumetric, electrolytic, and other methods of analysis.
**Prerequisites:** CHEM 212R (with a C- or better).

CHEM 341WI Analytical Chemistry I: Quantitative Analysis Credits: 4
Principles of gravimetric, volumetric, electrolytic, and other methods of analysis.
**Prerequisites:** CHEM 212R and CHEM 212LR (each with a C- or better), RooWriter.

CHEM 345R Instrumental Analysis Credits: 3
An introductory course on the use of instruments for chemical analysis with particular reference to applications of interest to medical technologists and other students in the sciences. Emphasis will be placed on optical, electrochemical and separation methods.
**Prerequisites:** CHEM 341 or CHEM 341WI (with a C- or better).

CHEM 367 Bioorganic Chemistry Credits: 3
An examination into the current topics at the interface between chemistry and biology. Emphasis will be on the current literature and will include such topics as nucleic acid chemistry, protein chemistry, and carbohydrate chemistry.
**Prerequisites:** CHEM 322R and CHEM 322L (each with a C- or better).

CHEM 382 Inorganic And Organic Synthesis Credits: 2
A number of inorganic, organic, and organometallic compounds will be prepared using a variety of synthetnic techniques.
**Prerequisites:** CHEM 322R and CHEM 322L (each with a C- or better).

CHEM 387 Environmental Chemistry I Credits: 3
A survey of how chemical principles can be applied to the environment. Included will be topics in aquatic chemistry, atmospheric chemistry and chemistry of the geosphere and soil.
**Prerequisites:** CHEM 320 or CHEM 322R (with a C- or better).

CHEM 390 Special Topics In Chemistry Credits: 1-3
This course will focus on an area of chemistry of contemporary significance. The amount of credit is to be determined by arrangement with the department. May be repeated for credit when the topic varies but no more than three hours of credit may be applied to major course requirements.
**Prerequisites:** CHEM 320 and CHEM 322R (each with a C- or better).

CHEM 390PT Special Topics In Chemistry Credits: 1-3
**Prerequisites:** CHEM 212R and CHEM 212LR (each with a C- or better).

CHEM 395 Directed Readings In Chemistry Credits: 1-3
Intensive readings in areas of joint interest to the enrolled student and the cooperating faculty member. Readings may not duplicate or substitute for current course offerings.
**Prerequisites:** CHEM 322R and CHEM 322L (each with a C- or better).

CHEM 399 Intro To Research Credits: 1-3
Special problems to introduce undergraduate chemistry majors to research methods. A comprehensive written report is required and a copy of the report is to be retained in the chemistry office.
**Prerequisites:** CHEM 212R and CHEM 212LR.

CHEM 410 Chemical Literature Credit: 1
A systematic introduction to the efficient use of the chemical literature. Topics will include both classical search methods and computer search methods.
**Prerequisites:** CHEM 322R and CHEM 322L (each with a C- or better).
CHEM 431 Physical Chemistry I Credits: 3
A first course in physical chemistry having a calculus base. This course emphasizes thermodynamics with an introduction to the basic principles of quantum mechanics.
**Prerequisites:** MATH 250; and PHYSICS 220 or PHYSICS 250.

CHEM 432 Physical Chemistry II Credits: 3
A second course in physical chemistry having a calculus base. This course emphasizes the quantum mechanics description of atoms and molecules, molecular spectroscopy, statistical mechanics, and kinetics.
**Prerequisites:** MATH 250; and PHYSICS 220 or PHYSICS 250; and CHEM 431 (each with a C- or better).

**Co-requisites:** CHEM 437WI.

CHEM 434 Molecular Spectroscopy Credits: 3
A theoretical introduction to molecular spectroscopy and its relation to structure. Electronic, vibrational and rotational spectra of chemical systems will be discussed.
**Prerequisites:** CHEM 432 (with a C- or better).

CHEM 437WI Experimental Physical Chemistry I Credits: 3
Experimental methods in physical chemistry. One hour lecture and six hours laboratory each week. Satisfies writing intensive requirements for the B.A. or B.S. degree.
**Prerequisites:** RooWriter.

**Co-requisites:** CHEM 432.

CHEM 442R Analytical Chemistry II: Instrumental Analysis Credits: 3
A continuation of CHEM 341. The experimental and theoretical aspects of optical and electrochemical, chromatographic and other physicochemical methods of analysis.
**Prerequisites:** CHEM 341 or CHEM 341WI (with a C- or better).

CHEM 445 Introduction To Principles Of Forensic Investigation Credits: 2
A survey of the physicochemical forensic techniques employed in the detection, examination, processing, preservation and court presentation of evidence.
**Prerequisites:** CHEM 212R and CHEM 212LR (each with a C- or better).

CHEM 451R Inorganic Chemistry Credits: 3
Modern concepts and theories of inorganic chemistry.
**Prerequisites:** CHEM 431 (with a C- or better).

CHEM 471 Introduction To Polymer Chemistry Credits: 3
Survey of organic and inorganic monomers and polymers; the occurrence, synthesis, structures and properties of natural and synthetic polymers; discussion of general properties of plastics, elastomers, fibers, resins, and plasticizers.
**Prerequisites:** CHEM 320 and CHEM 320L or CHEM 322R and CHEM 322L (each with a C- or better).

CHEM 480 Computer Applications To Chemical Problems Credits: 3
The course will survey the field of computational chemistry, concentrating on methods, programs and general utility to the research chemist. The student will learn the principles of the theory underlying the methods and will use selected software to carry out chemical calculations.
**Prerequisites:** CHEM 322R and 322L (with C- or better).

CHEM 490 Special Topics In Chemistry Credits: 1-3
This course will focus on an area of chemistry of contemporary significance. The amount of credit is to be determined by arrangement with the department. May be repeated for credit when the topic varies but no more than three hours of credit may be applied to major course requirements.
**Prerequisites:** CHEM 431 (with a C- or better).

CHEM 495 Directed Readings In Chemistry Credits: 1-3
Intensive readings in areas of joint interest to the enrolled student and the cooperating faculty member. Readings may not duplicate or substitute for current course offerings.
**Prerequisites:** CHEM 431 (with a C- or better).

CHEM 499 Senior Research Credits: 1-9
The student is given an original research problem and will be held responsible for all previous experience in working toward its solution. A well-written, comprehensive, and well documented research report is required, and a copy of the report is to be retained in the Chemistry department.
**Prerequisites:** CHEM 431 (with a C- or better).
CHEM 5511 Laboratory Safety And Health I Credit: 1
An introduction to laboratory safety and health. Topics to be discussed include good laboratory practice; laboratory hazards; safe chemical handling; storage and disposal; first aid; protective equipment; and federal regulations.

CHEM 5520R Survey Of Organic Chemistry Credits: 3
An intensive advanced survey of the structure, synthesis and reactions of organic compounds.

CHEM 5521R Mechanisms Of Organic Reactions Credits: 3
A comprehensive course in which the mechanisms of organic reactions are discussed in light of modern chemical principles.
Prerequisites: CHEM 322R and CHEM 432.

CHEM 5522 Synthetic Organic Chemistry Credits: 3
A critical approach to the synthesis and modification of organic molecules; newer methods will be emphasized.
Prerequisites: CHEM 322R and CHEM 432.

CHEM 5529 Selected Topics In Organic Chemistry Credits: 3
Selected topics from the chemistry and theories of organic structures with particular attention to recent developments.

CHEM 5530 Systematic Physical Chemistry Credits: 3
An intensive and comprehensive review of the principles of physical chemistry. This course may either emphasize thermodynamics with an introduction to principles of quantum mechanics or emphasize quantum mechanical description of atoms and molecules, molecular spectroscopy, statistical mechanics and kinetics.

CHEM 5530A Physical Chemistry I Credits: 3
This graduate course reviews principles of physical chemistry, focusing on thermodynamics, equilibria and electrochemistry.

CHEM 5530B Physical Chemistry II Credits: 3
This graduate course reviews principles of physical chemistry, focusing on quantum chemistry, molecular spectroscopy and structure, and kinetics.

CHEM 5531 Classical Thermodynamics Credits: 3
A rigorous treatment of the laws of thermodynamics and their application to ideal and non-ideal equilibrium systems.

CHEM 5532 Chemical Kinetics Credits: 3
Empirical analysis of chemical reaction rates. Theories of unimolecular and bimolecular reactions, reactions in solution and complex reactions. Review of modern and classical techniques used to study chemical kinetics.

CHEM 5533 Quantum Chemistry Credits: 3
Application of quantum mechanical methods to the study of systems of chemical interest. Exact solutions and approximate methods will be discussed.

CHEM 5534 Molecular Spectroscopy Credits: 3
A theoretical introduction to molecular spectroscopy and its relation to structure. Electronic, vibrational and rotational spectra of chemical systems will be discussed.

CHEM 5535 Statistical Thermodynamics Credits: 3
A rigorous treatment of the fundamental concepts of statistical thermodynamics, with applications to specific systems that reflect the interests of students participating in the course.

CHEM 5539 Selected Topics In Physical Chemistry Credits: 3
Selected topics and recent developments in physical chemistry.
Prerequisites: CHEM 5530.

CHEM 5541R Advanced Analytical Chemistry Credits: 3
An intensive review of modern concepts of analytical chemistry.
Prerequisites: CHEM 432.

CHEM 5551R Advanced Inorganic Chemistry I Credits: 3
A systematic treatment of bonding, structure, reactions and reaction mechanisms of inorganic compounds, with emphasis on classical transition metal compounds and organometallic compounds.
Prerequisites: CHEM 451R or equivalent.

CHEM 5559 Selected Topics In Inorganic Chemistry Credits: 3
Various special topics in the inorganic area to be offered in different semesters.
Prerequisites: CHEM 5551R.

CHEM 5567 Advanced Bioorganic Chemistry Credits: 3
This course examines the organic chemistry and laboratory synthesis of the major biopolymers and organic chemistry related to biological systems. Emphasis is on literature and library research and natural product and solid phase organic synthesis, combinatorial synthesis, bioconjugates and applied bioorganic chemistry.
CHEM 5571R Introduction To Polymer Chemistry Credits: 3
Survey of organic and inorganic monomers and polymers; the occurrence, synthesis, structures and properties of natural and synthetic polymers; discussion of general properties of plastics, elastomers, fibers, resins and plasticizers.
Prerequisites: CHEM 432.

CHEM 5580R Computer Applications To Chemical Problems Credits: 3
The purpose of this course is to survey the field of computational chemistry, concentrating on methods, programs and general utility to the research chemist. The student will learn the principles of the theory underlying the methods and will use selected software to carry out chemical calculations.
Prerequisites: CHEM 320/320L or CHEM 322R/322L with "C-" or better.

CHEM 5587 Environmental Chemistry I Credits: 3
A survey of how chemical principles can be applied to the environment. Included will be topics in aquatic chemistry, atmospheric chemistry and chemistry of the geosphere and soil.

CHEM 5588 Environmental Chemistry II Credits: 3
Discussion of selected topics in advanced environmental chemistry, such as environmental toxicology, environmental risk, the chemistry of hazardous wastes and their treatment, and environmental analytical chemistry.

CHEM 5590 Directed Studies Credits: 1-3
Intensive readings and/or research in an area selected by the graduate student in consultation with the instructor.

CHEM 5598 Research Methodology Conference Credits: 3
Student will meet on an individual basis with two faculty members who are involved in research. The student's adviser will coordinate this course.

CHEM 5599 Research And Thesis Credits: 1-9
Research for thesis.

CHEM 5611 Chemistry Seminar Credit: 1
Presentation and discussion of topics currently appearing in United States and foreign literature.

CHEM 5699 Research And Dissertation Credits: 1-16
Research for dissertation.

CHEM 5899 Required Graduate Enrollment Credit: 1

CHEM H206 Human Nutrition Credits: 3
Introduction to nutrition for health and wellness and the use of chemical energy in the breakdown and synthesis of biomolecules. Nutrition as it applies to a variety of life situations from infancy to older adults. Learning encompasses elements of anatomy and physiology related to nutrition and health.

CHEM H212R Honors: General Chemistry II Credits: 4
Liquids and solids, solutions, equilibrium, kinetics, electrochemistry and thermodynamics. Introductory course to all advanced work in chemistry.

CHEM H321 Honors: Organic Chemistry I Credits: 3
The two terms (CHEM H321, CHEM H322R) constitute an integrated unit in which the chemistry of aliphatic, aromatic, and some heterocyclic compounds are studied. The study begins with simple monofunctional compounds and ends with polyfunctional natural products.

CHEM H321L Organic Chemistry Laboratory I - Honors Credit: 1
Introduces the student to basic techniques and procedures in isolation, purification, and characterization of organic compounds and simple reactions used in the organic chemistry laboratory. The student will also be trained in the proper way to write a scientific laboratory report.

CHEM H322L Organic Chemistry Laboratory II Credit: 1
An extension of CHEM 321L. This course builds from the basic techniques, procedures, and writing to more advanced organic operations.
Prerequisites: CHEM 321 and CHEM 321L (each with a C- or better).

Co-requisites: CHEM 322R.

CHEM H322LR Organic Chemistry Laboratory II-Honors Credits: 2
A more intense version of CHEM 322L. See course description for CHEM 322L.
Prerequisite: CHEM 321L.

CHEM H322R Honors: Organic Chemistry II Credits: 3

CHEM H399 Introduction To Research Credits: 1-3
Special problems to introduce undergraduate chemistry majors to research methods. A comprehensive written report is required and a copy of the report is to be retained in the chemistry office. May be taken only after consultation with a member of the chemistry staff.
Prerequisites: CHEM 212R.

CHEM H499 Senior Research - Honors Credits: 1-9
Course frequency subject to enrollments, staffing and financial exigency.
Bachelor of Arts: Chemistry

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

- Apply chemical concepts to solving theoretical and practical problems.
- Follow general laboratory practice guidelines and demonstrate proper laboratory safety practices.
- Read, analyze, interpret, and cite the chemical literature as applied to answering chemical questions.
- Clearly and accurately communicate scientific information in an ethical manner.

Students graduating with a baccalaureate degree in chemistry will be prepared for entry into professional schools (e.g., medical, dental, pharmaceutical, or veterinary), graduate programs, or chemical industries.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I 1</td>
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<td>3</td>
</tr>
<tr>
<td>Anchor II 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III 1</td>
<td></td>
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<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied by the Constitution course requirement below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus Elective (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits: 21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose one of the following:</td>
<td></td>
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</tr>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ALEKS Math Placement</td>
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<td>6</td>
</tr>
<tr>
<td>Arts and Humanities Division of CAS</td>
<td>Satisfied in program requirements below</td>
<td>6</td>
</tr>
<tr>
<td>Science and Math Division of CAS</td>
<td>Satisfied in program requirements below</td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign Language (3rd Semester Level)</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course; Satisfied in program requirements below)</td>
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</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
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<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
<td></td>
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<tr>
<td>Laboratory Science Experience (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 21

1 ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

2 This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

Major Requirements

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

While credit as a result of advanced placement (AP) scores and courses in Biochemistry (LS-BIOC 441, LS-BIOC 365, or LS-BIOC 366) may be used towards meeting major requirements, they do not count towards the residency requirement.

- All majors must receive a C- or better in all chemistry courses with an overall chemistry GPA of 2.0 for graduation.
• A minimum grade of C- is required for all prerequisite courses (including physics and mathematics courses). In exceptional cases, students may receive written consent by submitting a petition to the Chemistry Undergraduate Curriculum Committee which has to be approved to waive this requirement.

• Each chemistry major must be advised by the Chemistry Undergraduate Advisor every semester.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Chemistry</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 211 &amp; 211L</td>
<td>General Chemistry I and Experimental General Chemistry I</td>
<td>5</td>
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<tr>
<td>CHEM 212R &amp; CHEM 212LR</td>
<td>General Chemistry II and Experimental General Chemistry II</td>
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<tr>
<td><strong>Organic Chemistry</strong> 1</td>
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<tr>
<td>CHEM 321 &amp; 321L</td>
<td>Organic Chemistry I and Organic Chemistry Laboratory I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 322R &amp; CHEM 322LR</td>
<td>Organic Chemistry II and Organic Chemistry Laboratory II</td>
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</tr>
<tr>
<td><strong>Writing Intensive Course</strong></td>
<td></td>
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<tr>
<td>CHEM 341WI</td>
<td>Analytical Chemistry I: Quantitative Analysis</td>
<td>4</td>
</tr>
<tr>
<td><strong>Chemistry Electives</strong> 1</td>
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<tr>
<td><strong>Physics</strong></td>
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<tr>
<td>PHYSICS 210</td>
<td>General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYSICS 220</td>
<td>General Physics II</td>
<td>4</td>
</tr>
<tr>
<td><strong>Math</strong></td>
<td></td>
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</tr>
<tr>
<td>Take any MATH or STAT course 200-level or above.</td>
<td>3</td>
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<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td>37</td>
</tr>
</tbody>
</table>

1 Any combination of 300-level and 400-level chemistry courses to bring the total credit hours to 26. Certain biochemistry courses (offered by the School of Biological Sciences) also may be included in this total. Please confer with the principal undergraduate advisor.

No more than three hours total in CHEM 395, CHEM 399, CHEM 495 and CHEM 499 may be used in meeting the major course requirements.

**General Electives**

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Electives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Minimum GPA: 2.0</strong></td>
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<tr>
<td><strong>Total Credit Hours: 120</strong></td>
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</tr>
</tbody>
</table>

**Tools for Planning and Fulfilling Academic Requirements**

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.

**Courses**

CHEM 111 Physical Basis Of Chemistry Credits: 3
An introductory course in the basic principles applicable to chemistry for students who intend to take but are not adequately prepared to take CHEM 211. The emphasis is on quantitative relationships and problem solving.
CHEM 115 Elements Of Chemistry I Credits: 4
A one-term course in general chemistry with special emphasis on organic chemistry and biochemistry. A terminal course that does not meet requirements as a prerequisite for any higher level chemistry course.

Co-requisites: CHEM 115L.

CHEM 115 - MOTR CHEM 100L: Essentials in Chemistry with Lab

CHEM 115L Elements Of Chemistry, Laboratory I Credit: 1
A one-term course in general chemistry with special emphasis on organic chemistry and biochemistry. A terminal course that does not meet requirements as a prerequisite for any higher level chemistry course.

Co-requisites: CHEM 115.

CHEM 115L - MOTR CHEM 100L: Essentials in Chemistry with Lab

CHEM 160 Chemistry, Society, And The Environment Credits: 3
This course is intended to offer a survey of chemical and scientific concepts surrounding current issues. The emphasis will be on the application of fundamental chemical knowledge to allow a full understanding of these issues in the context of currently known facts and theories. Through classroom discussion and application of the scientific method, the ramifications of the issues will be examined. Topics will include pollution, the importance of the chemical industry, its responsibilities to society, and other items of current scientific and environmental interest.

CHEM 160 - MOTR CHEM 100L: Essentials in Chemistry with Lab

CHEM 160L Laboratory For Chemistry, Society, And The Environment Credit: 1
This course is offered in support of CHEM 160. It will consist of field activities, experiments, and demonstrations to reinforce the concepts and ideas presented in that course.

CHEM 160L - MOTR CHEM 100L: Essentials in Chemistry with Lab

CHEM 180P Basic Chemistry Credits: 4
A one-semester survey of basic chemistry including: atomic structure, the periodic table, chemical bonding, chemical reactions, and selected topics from organic, polymer and biochemistry. A terminal course that does not meet requirements as a prerequisite for any higher level chemistry course.

Prerequisites: MATH 110 or equivalent.

Corequisite: CHEM 181P.

Cross Listings: CHEM 115.

CHEM 180P - MOTR CHEM 100L: Essentials in Chemistry with Lab

CHEM 181P Experimental Basic Chemistry Credits: 4
A demonstration/laboratory course designed to support and illustrate the concepts presented in Chemistry 180P. A terminal course that does not meet requirements as a prerequisite for any higher level chemistry course.

Prerequisites: MATH 110 or equivalent.

Co-requisites: CHEM 180P.

Cross Listings: CHEM 115L.

CHEM 182P Special Projects In Chemistry Credits: 4
An independent study course consisting of library work and field work designed to exemplify various applied aspects of chemistry. A terminal course that does not meet requirements as a prerequisite for any higher level chemistry course.

Prerequisites: MATH 110 or equivalent.

Co-requisites: CHEM 180P.
CHEM 206 Human Nutrition Credits: 3
Introduction to nutrition for health and wellness and the use of chemical energy in the breakdown and synthesis of biomolecules. Nutrition as it applies to a variety of life situations from infancy to older adults. Learning encompasses elements of anatomy and physiology related to nutrition and health.

CHEM 206 - MOTR LIFS 100: Essentials in Human Biology

CHEM 211 General Chemistry I Credits: 4
Stoichiometry, gas laws, thermochemistry, atomic structure, molecular shapes and bonding theories. Recommended preparation: working knowledge of College Algebra.

CHEM 211 - MOTR CHEM 150L: Chemistry I with Lab

CHEM 211L Experimental General Chemistry I Credit: 1
Introduction to the laboratory techniques used in studying the chemical properties of substances. Some quantitative techniques are included.

Co-requisites: CHEM 211.

CHEM 211L - MOTR CHEM 150L: Chemistry I with Lab

CHEM 212LR Experimental General Chemistry II Credit: 1
Introduction to analysis and synthesis. Descriptive chemistry of the more common elements.

Co-requisites: CHEM 212R.

CHEM 212R General Chemistry II Credits: 4
Liquids and solids, solutions, equilibrium, kinetics, electrochemistry and thermodynamics. Introductory course to all advanced work in chemistry.
Prerequisites: CHEM 211 and CHEM 211L (each with a C- or better).

Co-requisites: CHEM 212LR.

CHEM 2YC Chemistry Elective LE Credits: 99
Transfer credit

CHEM 311 Laboratory Safety And Health I Credit: 1
An introduction to laboratory safety and health. Topics to be discussed include good laboratory practice; laboratory hazards; safe chemical handling, storage and disposal; first aid; protective equipment; and federal regulations.
Prerequisites: CHEM 320 or CHEM 321.

CHEM 320 Elementary Organic Chemistry Credits: 4
This one-semester course covers all fundamental principles of organic chemistry, including modern bonding theory, analytical techniques, physical properties, and chemical reactions. This course is designed to satisfy requirements for students in the UMKC Six-Year Medical Program or certain Biology B.A. majors. This course is not recommended for pre-medical, pre-dental, pre-pharmacy or other pre-health students.
Prerequisites: CHEM 212R and CHEM 212LR (each with a C- or better).

Co-requisites: CHEM 320L.

CHEM 320L Experimental Organic Chemistry Credit: 1
Elementary organic chemistry experiments to teach basic laboratory operations.
Co-requisites: CHEM 320.

CHEM 321 Organic Chemistry I Credits: 3
The two terms (CHEM 321, CHEM 322R) constitute an integrated unit in which the chemistry of aliphatic, aromatic, and some heterocyclic compounds are studied. The study begins with simple monofunctional compounds and ends with polyfunctional natural products.
Prerequisites: CHEM 212R and CHEM 212LR (each with a C- or better).

Co-requisites: CHEM 321L.

CHEM 321L Organic Chemistry Laboratory I Credit: 1
Introduces the student to basic techniques and procedures in isolation, purification, and characterization of organic compounds and simple reactions used in the organic chemistry laboratory. The student will also be trained in the proper way to write a scientific laboratory report.
Co-requisites: CHEM 321.
CHEM 322L Organic Chemistry Laboratory II Credit: 1
CHEM 322L is an extension of CHEM 321L. CHEM 322L builds from the basic techniques, procedures, and writing to more advanced organic operations.
Prerequisites: CHEM 321 and CHEM 321L (or equivalents; each with a C- or better).
Co-requisites: CHEM 322R.

CHEM 322R Organic Chemistry II Credits: 3
Continuation of CHEM 321.
Prerequisites: CHEM 321 and CHEM 321L (each with a C- or better).
Co-requisites: CHEM 322L.

CHEM 330 Elementary Physical Chemistry Credits: 3
An introductory course in the principles of physical chemistry for students who have not had calculus.
Prerequisites: CHEM 220 or CHEM 250; CHEM 320 or CHEM 322R (each with a C- or better).

CHEM 341 Analytical Chemistry I: Quantitative Analysis Credits: 4
Principles of gravimetric, volumetric, electrolytic, and other methods of analysis.
Prerequisites: CHEM 212R (with a C- or better).

CHEM 341WI Analytical Chemistry I: Quantitative Analysis Credits: 4
Principles of gravimetric, volumetric, electrolytic, and other methods of analysis.
Prerequisites: CHEM 212R and CHEM 212LR (each with a C- or better), RooWriter.

CHEM 345R Instrumental Analysis Credits: 3
An introductory course on the use of instruments for chemical analysis with particular reference to applications of interest to medical technologists and other students in the sciences. Emphasis will be placed on optical, electrochemical and separation methods.
Prerequisites: CHEM 341 or CHEM 341WI (with a C- or better).

CHEM 367 Bioorganic Chemistry Credits: 3
An examination into the current topics at the interface between chemistry and biology. Emphasis will be on the current literature and will include such topics as nucleic acid chemistry, protein chemistry, and carbohydrate chemistry.
Prerequisites: CHEM 322R and CHEM 322L (each with a C- or better).

CHEM 382 Inorganic And Organic Synthesis Credits: 2
A number of inorganic, organic, and organometallic compounds will be prepared using a variety of synthetic techniques.
Prerequisites: CHEM 322R and CHEM 322L (each with a C- or better).

CHEM 387 Environmental Chemistry I Credits: 3
A survey of how chemical principles can be applied to the environment. Included will be topics in aquatic chemistry, atmospheric chemistry and chemistry of the geosphere and soil.
Prerequisites: CHEM 320 or CHEM 322R (with a C- or better).

CHEM 390 Special Topics In Chemistry Credits: 1-3
This course will focus on an area of chemistry of contemporary significance. The amount of credit is to be determined by arrangement with the department. May be repeated for credit when the topic varies but no more than three hours of credit may be applied to major course requirements.
Prerequisites: CHEM 320 and CHEM 322R (each with a C- or better).

CHEM 390PT Special Topics In Chemistry Credits: 1-3
CHEM 392 Chemistry Internship/Practical Training Credits: 1-3
Practical work in chemistry in an industrial, academic or other professional setting. Prior to the start of work, the department must approve the internship/practical training.
Prerequisites: CHEM 212R and CHEM 212LR (each with a C- or better).

CHEM 395 Directed Readings In Chemistry Credits: 1-3
Intensive readings in areas of joint interest to the enrolled student and the cooperating faculty member. Readings may not duplicate or substitute for current course offerings.
Prerequisites: CHEM 322R and CHEM 322L (each with a C- or better).

CHEM 399 Intro To Research Credits: 1-3
Special problems to introduce undergraduate chemistry majors to research methods. A comprehensive written report is required and a copy of the report is to be retained in the chemistry office.
Prerequisites: CHEM 212R and CHEM 212LR.
CHEM 410 Chemical Literature Credit: 1
A systematic introduction to the efficient use of the chemical literature. Topics will include both classical search methods and computer search methods.
Prerequisites: CHEM 322R and CHEM 322L (each with a C- or better).

CHEM 431 Physical Chemistry I Credits: 3
A first course in physical chemistry having a calculus base. This course emphasizes thermodynamics with an introduction to the basic principles of quantum mechanics.
Prerequisites: MATH 250; and PHYSICS 220 or PHYSICS 250.

CHEM 432 Physical Chemistry II Credits: 3
A second course in physical chemistry having a calculus base. This course emphasizes the quantum mechanics description of atoms and molecules, molecular spectroscopy, statistical mechanics, and kinetics.
Prerequisites: MATH 250; and PHYSICS 220 or PHYSICS 250; and CHEM 431 (each with a C- or better).
Co-requisites: CHEM 437WI.

CHEM 434 Molecular Spectroscopy Credits: 3
A theoretical introduction to molecular spectroscopy and its relation to structure. Electronic, vibrational and rotational spectra of chemical systems will be discussed.
Prerequisites: CHEM 432 (with a C- or better).

CHEM 437WI Experimental Physical Chemistry I Credits: 3
Experimental methods in physical chemistry. One hour lecture and six hours laboratory each week. Satisfies writing intensive requirements for the B.A. or B.S. degree.
Prerequisites: RooWriter.
Co-requisites: CHEM 432.

CHEM 442R Analytical Chemistry II: Instrumental Analysis Credits: 3
A continuation of CHEM 341. The experimental and theoretical aspects of optical and electrochemical, chromatographic and other physicochemical methods of analysis.
Prerequisites: CHEM 341 or CHEM 341WI (with a C- or better).

CHEM 445 Introduction To Principles Of Forensic Investigation Credits: 2
A survey of the physicochemical forensic techniques employed in the detection, examination, processing, preservation and court presentation of evidence.
Prerequisites: CHEM 212R and CHEM 212LR (each with a C- or better).

CHEM 451R Inorganic Chemistry Credits: 3
Modern concepts and theories of inorganic chemistry.
Prerequisites: CHEM 431 (with a C- or better).

CHEM 471 Introduction To Polymer Chemistry Credits: 3
Survey of organic and inorganic monomers and polymers; the occurrence, synthesis, structures and properties of natural and synthetic polymers; discussion of general properties of plastics, elastomers, fibers, resins, and plasticizers.
Prerequisites: CHEM 320 and CHEM 320L or CHEM 322R and CHEM 322L (each with a C- or better).

CHEM 480 Computer Applications To Chemical Problems Credits: 3
The course will survey the field of computational chemistry, concentrating on methods, programs and general utility to the research chemist. The student will learn the principles of the theory underlying the methods and will use selected software to carry out chemical calculations.
Prerequisites: CHEM 322R and 322L (with C- or better).

CHEM 490 Special Topics In Chemistry Credits: 1-3
This course will focus on an area of chemistry of contemporary significance. The amount of credit is to be determined by arrangement with the department. May be repeated for credit when the topic varies but no more than three hours of credit may be applied to major course requirements.
Prerequisites: CHEM 431 (with a C- or better).

CHEM 495 Directed Readings In Chemistry Credits: 1-3
Intensive readings in areas of joint interest to the enrolled student and the cooperating faculty member. Readings may not duplicate or substitute for current course offerings.
Prerequisites: CHEM 431 (with a C- or better).
CHEM 499 Senior Research Credits: 1-9
The student is given an original research problem and will be held responsible for all previous experience in working toward its solution. A well-written, comprehensive, and well documented research report is required, and a copy of the report is to be retained in the Chemistry department.
Prerequisites: CHEM 431 (with a C- or better).

CHEM 5511 Laboratory Safety And Health I Credit: 1
An introduction to laboratory safety and health. Topics to be discussed include good laboratory practice; laboratory hazards; safe chemical handling; storage and disposal; first aid; protective equipment; and federal regulations.

CHEM 5520R Survey Of Organic Chemistry Credits: 3
An intensive advanced survey of the structure, synthesis and reactions of organic compounds.

CHEM 5521R Mechanisms Of Organic Reactions Credits: 3
A comprehensive course in which the mechanisms of organic reactions are discussed in light of modern chemical principles.
Prerequisites: CHEM 322R and CHEM 432.

CHEM 5522 Synthetic Organic Chemistry Credits: 3
A critical approach to the synthesis and modification of organic molecules; newer methods will be emphasized.
Prerequisites: CHEM 322R and CHEM 432.

CHEM 5529 Selected Topics In Organic Chemistry Credits: 3
Selected topics from the chemistry and theories of organic structures with particular attention to recent developments.

CHEM 5530 Systematic Physical Chemistry Credits: 3
An intensive and comprehensive review of the principles of physical chemistry. This course may either emphasize thermodynamics with an introduction to principles of quantum mechanics or emphasize quantum mechanical description of atoms and molecules, molecular spectroscopy, statistical mechanics and kinetics.

CHEM 5530A Physical Chemistry I Credits: 3
This graduate course reviews principles of physical chemistry, focusing on thermodynamics, equilibria and electrochemistry.

CHEM 5530B Physical Chemistry II Credits: 3
This graduate course reviews principles of physical chemistry, focusing on quantum chemistry, molecular spectroscopy and structure, and kinetics.

CHEM 5531 Classical Thermodynamics Credits: 3
A rigorous treatment of the laws of thermodynamics and their application to ideal and non-ideal equilibrium systems.

CHEM 5532 Chemical Kinetics Credits: 3
Empirical analysis of chemical reaction rates. Theories of unimolecular and bimolecular reactions, reactions in solution and complex reactions. Review of modern and classical techniques used to study chemical kinetics.

CHEM 5533 Quantum Chemistry Credits: 3
Application of quantum mechanical methods to the study of systems of chemical interest. Exact solutions and approximate methods will be discussed.

CHEM 5534 Molecular Spectroscopy Credits: 3
A theoretical introduction to molecular spectroscopy and its relation to structure. Electronic, vibrational and rotational spectra of chemical systems will be discussed.

CHEM 5535 Statistical Thermodynamics Credits: 3
A rigorous treatment of the fundamental concepts of statistical thermodynamics, with applications to specific systems that reflect the interests of students participating in the course.

CHEM 5539 Selected Topics In Physical Chemistry Credits: 3
Selected topics and recent developments in physical chemistry.
Prerequisites: CHEM 5530.

CHEM 5541R Advanced Analytical Chemistry Credits: 3
An intensive review of modern concepts of analytical chemistry.
Prerequisites: CHEM 432.

CHEM 5551R Advanced Inorganic Chemistry I Credits: 3
A systematic treatment of bonding, structure, reactions and reaction mechanisms of inorganic compounds, with emphasis on classical transition metal compounds and organometallic compounds.
Prerequisites: CHEM 451R or equivalent.

CHEM 5559 Selected Topics In Inorganic Chemistry Credits: 3
Various special topics in the inorganic area to be offered in different semesters.
Prerequisites: CHEM 5551R.
CHEM 5567 Advanced Bioorganic Chemistry Credits: 3
This course examines the organic chemistry and laboratory synthesis of the major biopolymers and organic chemistry related to biological systems. Emphasis is on literature and library research and natural product and solid phase organic synthesis, combinatorial synthesis, bioconjugates and applied bioorganic chemistry.

CHEM 5571R Introduction To Polymer Chemistry Credits: 3
Survey of organic and inorganic monomers and polymers; the occurrence, synthesis, structures and properties of natural and synthetic polymers; discussion of general properties of plastics, elastomers, fibers, resins and plasticizers.

Prerequisites: CHEM 432.

CHEM 5580R Computer Applications To Chemical Problems Credits: 3
The purpose of this course is to survey the field of computational chemistry, concentrating on methods, programs and general utility to the research chemist. The student will learn the principles of the theory underlying the methods and will use selected software to carry out chemical calculations.

Prerequisites: CHEM 320/320L or CHEM 322R/322L with "C-" or better.

CHEM 5587 Environmental Chemistry I Credits: 3
A survey of how chemical principles can be applied to the environment. Included will be topics in aquatic chemistry, atmospheric chemistry and chemistry of the geosphere and soil.

CHEM 5588 Environmental Chemistry II Credits: 3
Discussion of selected topics in advanced environmental chemistry, such as environmental toxicology, environmental risk, the chemistry of hazardous wastes and their treatment, and environmental analytical chemistry.

CHEM 5590 Directed Studies Credits: 1-3
Intensive readings and/or research in an area selected by the graduate student in consultation with the instructor.

CHEM 5598 Research Methodology Conference Credits: 3
Student will meet on an individual basis with two faculty members who are involved in research. The student’s adviser will coordinate this course.

CHEM 5599 Research And Thesis Credits: 1-9
Research for thesis.

CHEM 5611 Chemistry Seminar Credit: 1
Presentation and discussion of topics currently appearing in United States and foreign literature.

CHEM 5699 Research And Dissertation Credits: 1-16
Research for dissertation.

CHEM 5899 Required Graduate Enrollment Credit: 1

CHEM H206 Human Nutrition Credits: 3
Introduction to nutrition for health and wellness and the use of chemical energy in the breakdown and synthesis of biomolecules. Nutrition as it applies to a variety of life situations from infancy to older adults. Learning encompasses elements of anatomy and physiology related to nutrition and health.

CHEM H212R Honors: General Chemistry II Credits: 4
Liquids and solids, solutions, equilibrium, kinetics, electrochemistry and thermodynamics. Introductory course to all advanced work in chemistry.

CHEM H321 Honors: Organic Chemistry I Credits: 3
The two terms (CHEM H321, CHEM H322R) constitute an integrated unit in which the chemistry of aliphatic, aromatic, and some heterocyclic compounds are studied. The study begins with simple monofunctional compounds and ends with polyfunctional natural products.

CHEM H321L Organic Chemistry Laboratory I - Honors Credit: 1
Introduces the student to basic techniques and procedures in isolation, purification, and characterization of organic compounds and simple reactions used in the organic chemistry laboratory. The student will also be trained in the proper way to write a scientific laboratory report.

CHEM H322L Organic Chemistry Laboratory II Credit: 1
An extension of CHEM 321L. This course builds from the basic techniques, procedures, and writing to more advanced organic operations.

Prerequisites: CHEM 321 and CHEM 321L (each with a C- or better).

Co-requisites: CHEM 322R.

CHEM H322LR Organic Chemistry Laboratory II-Honors Credits: 2
A more intense version of CHEM 322L. See course description for CHEM 322L.

Prerequisite: CHEM 321L.
CHEM H322R Honors: Organic Chemistry II Credits: 3
CHEM H399 Introduction To Research Credits: 1-3
Special problems to introduce undergraduate chemistry majors to research methods. A comprehensive written report is required and a copy of the report is to be retained in the chemistry office. May be taken only after consultation with a member of the chemistry staff.

Prerequisites: CHEM 212R.

CHEM H499 Senior Research - Honors Credits: 1-9
Course frequency subject to enrollments, staffing and financial exigency.
Bachelor of Science: Chemistry

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

• Apply chemical concepts to solving theoretical and practical problems.
• Follow general laboratory practice guidelines and demonstrate proper laboratory safety practices.
• Read, analyze, interpret, and cite the chemical literature as applied to answering chemical questions.
• Articulate scientific information, both orally and in writing.
• Analyze and solve scientific problems as part of a team.
• Demonstrate ethical scientific practice, treatment of data and other people's work.

Students graduating with a baccalaureate degree in chemistry will be prepared for entry into professional schools (e.g., medical, dental, pharmaceutical, or veterinary), graduate programs, or chemical industries.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
</table>
| Anchor I  
1 | Discourse I: Reasoning and Values (Speech and Writing)   | 3       |
| Anchor II  
1 | Discourse II: Culture and Diversity (Writing and Speech) | 3       |
| Anchor III  
1 | Discourse III: Civic and Community Engagement (Speech and Writing) | 3       |
| DISC 100 |                                                      | 3       |
| DISC 200 |                                                      | 3       |
| DISC 300 |                                                      | 3       |
| Focus A  
1 |                                                      | 3       |

Focus B (Satisfied in program requirements below)
Focus C (May be satisfied by the Constitution course requirement below)
Focus Elective (Satisfied in program requirements below)

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits  
21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits: 3

Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
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<td>6</td>
</tr>
<tr>
<td>Arts and Humanities Division of CAS (Satisfied in program requirements below)</td>
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<td></td>
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<tr>
<td>Science and Math Division of CAS (Satisfied in program requirements below)</td>
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<td></td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
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<tr>
<td>MATH 110 or any 200-level or above Math/Stat course (Satisfied in program requirements below)</td>
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<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
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<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
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<tr>
<td>Laboratory Science Experience (Satisfied in program requirements below)</td>
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</tbody>
</table>

Total Credits: 12

1. ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

2. This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

Major Requirements

The Chemistry Department bachelor of science degree is certified by the American Chemical Society (ACS) and requires the 43 credit hours in chemistry listed below, specifically the 2 credit hours of CHEM 382, 3 credit hours of CHEM 367 or LS-BIOC 341 and an upper division elective which may be chosen from selected departments.

In order to meet the residency requirement for a major in Chemistry, a minimum of 12 credit hours must be completed in the Department of Chemistry at UMKC, of which 9 out of the 12 hours must be at the 300-level or above. While credit as a result of advanced placement (AP) scores and courses in
Biochemistry (LS-BIOC 441, LS-BIOC 365, or LS-BIOC 366) may be used towards meeting major requirements, they do not count towards the residency requirement.

- All majors must receive a C- or better in all chemistry courses with an overall chemistry GPA of 2.0 for graduation.
- A minimum grade of C- is required for all prerequisite courses (including physics and mathematics courses). In exceptional cases, students may receive written consent by submitting a petition to the Chemistry Undergraduate Curriculum Committee which has to be approved to waive this requirement.
- Each chemistry major must be advised by the Chemistry Undergraduate Advisor every semester.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td><strong>General Chemistry</strong></td>
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<tr>
<td>CHEM 211 &amp; 211L</td>
<td>General Chemistry I and Experimental General Chemistry I (Focus B)</td>
<td>5</td>
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<tr>
<td>CHEM 212R &amp; CHEM 212LR</td>
<td>General Chemistry II and Experimental General Chemistry II (Focus B)</td>
<td>5</td>
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<tr>
<td><strong>Organic Chemistry</strong></td>
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<tr>
<td>CHEM 321 &amp; 321L</td>
<td>Organic Chemistry I and Organic Chemistry Laboratory I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 322R &amp; CHEM 322L</td>
<td>Organic Chemistry II and Organic Chemistry Laboratory II</td>
<td>4</td>
</tr>
<tr>
<td><strong>Analytical Chemistry</strong></td>
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<tr>
<td>CHEM 341WI</td>
<td>Analytical Chemistry I: Quantitative Analysis</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 442R</td>
<td>Analytical Chemistry II: Instrumental Analysis</td>
<td>3</td>
</tr>
<tr>
<td><strong>Physical Chemistry</strong></td>
<td></td>
<td></td>
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<tr>
<td>CHEM 431</td>
<td>Physical Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 437WI</td>
<td>Experimental Physical Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 432</td>
<td>Physical Chemistry II</td>
<td>3</td>
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<tr>
<td><strong>Chemical Literature</strong></td>
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<tr>
<td>CHEM 410</td>
<td>Chemical Literature</td>
<td>1</td>
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<tr>
<td><strong>Inorganic Chemistry</strong></td>
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<tr>
<td>CHEM 451R</td>
<td>Inorganic Chemistry</td>
<td>3</td>
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<tr>
<td><strong>Advanced Work</strong></td>
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<tr>
<td>One of the following: ¹</td>
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<td>3</td>
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<tr>
<td>CHEM 400 or higher</td>
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</tr>
<tr>
<td>MATH course higher than 250 with 220 as a prerequisite</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 300 or Higher</td>
<td></td>
<td></td>
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<tr>
<td>PHYSICS 300 or Higher</td>
<td></td>
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<tr>
<td>STAT 400 or Higher</td>
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<td></td>
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<tr>
<td><strong>Math</strong></td>
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</tr>
<tr>
<td>MATH 120</td>
<td>Precalculus</td>
<td>5</td>
</tr>
<tr>
<td>MATH 210</td>
<td>Calculus I (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>MATH 220</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 250</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td><strong>Engineering Physics</strong></td>
<td></td>
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</tr>
<tr>
<td>PHYSICS 240</td>
<td>Physics For Scientists and Engineers I</td>
<td>5</td>
</tr>
<tr>
<td>PHYSICS 250</td>
<td>Physics For Scientists and Engineers II</td>
<td>5</td>
</tr>
<tr>
<td><strong>ACS Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 382</td>
<td>Inorganic And Organic Synthesis</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 367</td>
<td>Bioorganic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>or LS-BIOC 441</td>
<td>Biochemistry</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 73
On rare occasions, a student may need more flexibility than the ACS-certified B.S. degree allows. In this case, course substitutions may be selected and approved by a chemistry advisor so that the student may still complete the bachelor of science degree in chemistry as a non-ACS-certified degree.

**Math and Science Requirements**
The Bachelor of Science degree requires a minimum of 60 hours in math and science coursework. The number of credit hours needed to meet this minimum requirement are listed below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Additional Math/Science Coursework (Satisfied in program requirements above)</td>
<td></td>
</tr>
</tbody>
</table>

**General Electives**
Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>11</td>
</tr>
</tbody>
</table>

**Minimum GPA: 2.0**

**Total Credit Hours: 120**

**Tools for Planning and Fulfilling Academic Requirements**
UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”.

In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Master of Science: Chemistry

Requirements for Admission

Applicants should have the equivalent of an American Chemical Society (ACS)-approved bachelor’s degree in chemistry. This degree includes the equivalent of: one year of general chemistry, quantitative analysis, one year of organic chemistry, one year of physical chemistry, physical chemistry laboratory, instrumental analysis, inorganic chemistry, one year of physics, and three semesters of calculus, and the ACS-recommended distribution of advanced courses and course credits. (For example, see UMKC’s B.S. program in chemistry (p. 125.) Applicants should take particular note of the physical chemistry requirement. They may be admitted as provisional students if they have a limited number of undergraduate deficiencies. At the time that admission is offered, applicants will be notified of any requirements to be met for reclassification as fully admitted. Undergraduate courses included in these requirements must be completed with grades of C- or higher.

Applications are only accepted through the online system, and include:

1. Official, confidentially transmitted transcripts.
2. Statement of purpose.
3. Two confidentially transmitted letters of recommendation (academic and/or professional).
4. Official Graduate Record Exam (General Test) score, less than six (6) years old.
5. English language proficiency requirement.

An official Graduate Record Exam score (general test) is required as part of the application to the program. The GRE score will be evaluated as part of the entire application.

Applicants from foreign countries, who have an official language other than English, must achieve scores of at least 550 (paper-based), 213 (computer-based), or 79 (internet-based) on the Test of English as a Foreign Language (TOEFL) to be considered for admission.

Placement Examinations

Incoming students must take placement examinations in analytical, inorganic, organic, and physical chemistry. Placement examinations are typically administered the week before the first week of classes of the fall and spring semesters. Students scoring below the 50th percentile in the organic and/or physical chemistry exams are required to enroll in CHEM 5520R and/or CHEM 5530A/CHEM 5530B, respectively. Enrollment in other graduate organic or physical chemistry courses is not permitted until CHEM 5520R or CHEM 5530A/CHEM 5530B, respectively, is (are) successfully completed. CHEM 5530A/CHEM 5530B is currently offered concurrently with CHEM 431 or CHEM 432. A student is required to take either CHEM 5530A/CHEM 431 or CHEM 5530B/CHEM 432 or both, depending on his/her performances in the various sub-disciplines of the physical chemistry placement exam. Should a student be required to take both CHEM 5530A/CHEM 431 and CHEM 5530B/CHEM 432, the average grade of the two CHEM 5530 courses will be considered for the fulfillment of the physical chemistry deficiency. Two grades of C+ or lower, or one grade of less than C- in CHEM 5520R or CHEM 5530, will result in termination from the degree program. These courses may not be counted toward the M.S. coursework requirements. Students must complete all additional coursework required as a result of the placement exams by the end of their first three regular semesters.

Graduate Program Committee

Upon admission to M.S. program in chemistry, students will be advised by the department’s principal graduate advisor, acting on behalf of the chemistry graduate program committee. Based on the committee’s evaluation of the students’ transcripts and placement exam scores, the principal graduate advisor will inform students of any deficiencies and how they should be removed. The principal graduate advisor also will advise students on course curriculum. For the thesis degree, the curriculum advising is performed by the research advisor (once they have been selected). The graduate program committee serves as the supervisory committee for non-thesis M.S. students.

Seminar Attendance

Full-time M.S. students are required to attend all regularly scheduled and special departmental seminars and colloquia. Part-time students are also required to attend these seminars but may petition the Chair of the Department of Chemistry to waive this requirement all but one semester. Such students will be required either to participate fully during one semester, including the presentation of a one-hour seminar, or to present two one-hour seminars in lieu of full participation.

Minimum Requirements for Master of Science Degree

In addition to the requirements listed here, all M.S. students are subject to the all general M.S. requirements of the University. See the School of Graduate Studies (p. 1185) section of this catalog for a complete listing.
Master of Science in Chemistry (Non-Thesis)

Student Learning Outcomes

Students graduating from this program will:

- Possess an extensive knowledge in both breadth and depth in chemistry
- Demonstrate critical thinking and problem solving skills
- Search, read, understand and use scientific literature
- Articulate scientific information both orally and in writing

Coursework

The emphasis of this program is coursework. Non-thesis M.S. students are required to complete a minimum of 31 credit hours of graduate-level coursework. Non-thesis M.S. Students are required to complete:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>One of the following Organic Chemistry Courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 5521R</td>
<td>Mechanisms Of Organic Reactions</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 5522</td>
<td>Synthetic Organic Chemistry</td>
<td></td>
</tr>
<tr>
<td>One of the following Physical Chemistry Courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 5531</td>
<td>Classical Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 5532</td>
<td>Chemical Kinetics</td>
<td></td>
</tr>
<tr>
<td>CHEM 5533</td>
<td>Quantum Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM 5534</td>
<td>Molecular Spectroscopy</td>
<td></td>
</tr>
<tr>
<td>CHEM 5535</td>
<td>Statistical Thermodynamics</td>
<td></td>
</tr>
<tr>
<td>Additional credit hours from graduate-level Chemistry courses numbered between CHEM 5521R, and CHEM 5589 (excluding CHEM 5530, and CHEM 5540)</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>CHEM 5611</td>
<td>Chemistry Seminar</td>
<td>1</td>
</tr>
<tr>
<td>Additional 15 credit hours from graduate courses approved by the Graduate Program Committee (6 credit hours of CHEM 5590, CHEM 5599, or CHEM 5699 may be applied)</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>31</td>
</tr>
</tbody>
</table>

Students who receive a grade of C+ or lower in more than two courses applicable to the M.S. program or who have a cumulative grade-point average of less than 3.0 on courses applicable toward the M.S. degree after completing 18 or more credit hours of such courses, will be terminated from the degree program. Grades received for CHEM 5590 and any undergraduate-level courses are not included in the minimum GPA calculation.

Students who have received a grade of B- or better in graduate chemistry coursework taken as part of a degree program at another institution may have up to 6 credit hours of equivalent required coursework waived upon approval of a majority of the graduate program committee. A written request for this approval must be submitted within one year of full admission to the M.S. program.

Seminar Presentation

Students must present a one-hour literature seminar based on a topic of their choice which has been approved by the Department of Chemistry Chair (or a designee). Students must register for CHEM 5611 the semester of this presentation. This seminar will include an exhaustive review of the pertinent literature and discussion of both present and future implications of research in this area. An abstract is to be posted and distributed one week prior to the presentation date.

Time Constraints and Financial Assistance

The non-thesis M.S. degree program is intended primarily for students currently employed in a chemically related industry. Full-time, non-thesis M.S. students are required to complete all of the requirements for their degree within four years. Part-time, non-thesis M.S. students are required to complete all requirements for their degree within seven years. Non-thesis M.S. students are not eligible for financial support from the Department of Chemistry.
Master of Science in Chemistry (Thesis-Based)

Student Learning Outcomes

Students graduating from this program will:

- Possess an extensive knowledge in both breadth and depth in chemistry
- Demonstrate critical thinking and problem solving skills
- Search, read, understand and use scientific literature
- Articulate scientific information both orally and in writing
- Design and conduct rational experimental research

Coursework

The emphasis of this program is research. A minimum of 31 credit hours (including research and thesis) is required. Full-time students should complete the formal coursework requirement no later than the end of their second year.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Select one of the following Physical Chemistry Courses:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM 5531 Classical Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CHEM 5533 Quantum Chemistry</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM 5534 Molecular Spectroscopy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following Organic Chemistry Courses:</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CHEM 5521R Mechanisms Of Organic Reactions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM 5522 Synthetic Organic Chemistry</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Additional credit hours from graduate-level Chemistry Courses numbered CHEM 5521R to CHEM 5589 (excluding CHEM 5530 and CHEM 5540)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Additional graduate-level courses for a minimum of 12 credit hours (with no more than 6 credit hours of directed studies, CHEM 5590, applied)</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>CHEM 5611 Chemistry Seminar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM 5599 Research And Thesis (under direction of student’s research advisor)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td>31</td>
</tr>
</tbody>
</table>

The selected courses must be approved by the student’s supervisory committee. Students who receive a grade of C+ or lower in more than two courses applicable to the M.S. program or who have a cumulative GPA lower than 3.0 on courses (not including CHEM 5590, CHEM 5599 or any undergraduate courses) applicable toward the M.S. degree after completing 18 or more credit hours of such courses, will be terminated from the degree program.

Students, who have received a grade of B- or better in graduate coursework taken as part of a degree program at another institution, may transfer up to 6 credit hours of this work on approval of a majority of the student’s committee. A written request for this approval must be submitted within one year of full admission to the program.

Research Advisor and Supervisory Committee

Full-time students must select a research advisor from the graduate faculty of the Department of Chemistry and a supervisory committee by the end of their first regular (i.e., fall or spring) semester on campus. Part-time students must select their research advisor and supervisory committee by the end of their third year after enrollment in their first course as an M.S. student at UMKC.

The research advisor becomes the chairperson of the supervisory committee, which includes at least two additional members of the chemistry graduate faculty. Students and their supervisory committee shall plan a program of study which, when met, will qualify students for the M.S. degree. This program of study must be approved by the supervisory committee, the department chair, and the principal graduate advisor prior to the completion of 15 hours of coursework applicable to the degree. The supervisory committee is responsible for conducting the final thesis examination for students in the thesis program.

Seminar Presentation

Students must present a one-hour seminar based on their thesis research project. This seminar will include an exhaustive review of the literature pertinent to their project, a description of the objectives, the proposed methodology, and the significance of this research. Students must register for CHEM 5611 and present this seminar during the semester following selection of their research advisor and committee.
Thesis Defense

The candidate’s thesis must be prepared following all of the guidelines required by the UMKC School of Graduate Studies. All supervisory committee members must receive a final draft of the thesis for approval of form and content at least two weeks before submission to the Dean of the School of Graduate Studies. Candidates should submit preliminary drafts of their thesis to their supervisory committee well in advance of this deadline. After the thesis is certified for acceptance by the Dean of the School of Graduate Studies, the student must present an oral defense of his/her research in the form of a thesis seminar. The supervisory committee will make a final determination of the acceptability of the thesis immediately following this presentation. Only minor changes may be made to the thesis at this point.

Time Constraints and Financial Assistance

Full-time Thesis-Based M.S. students are required to complete all of the requirements for their degree within four years. In compelling circumstances, and on the written recommendation of a majority of the supervisory committee, a single extension for up to one year may be requested for approval by the Chair of the Department of Chemistry.

Full-time Thesis-Based M.S. students may receive financial support from the Department of Chemistry for a maximum of two-and-one-half years. Students from countries having an official language other than English, and who wish to be supported as GTAs, must meet the UMKC standards for international students to become certified as GTAs. Full information on that process can be found here: Policy on Award of Teaching Assistantships (p. 1214).
Minor in Chemistry

Student Learning Outcomes

Students graduating from this program will:

• Have a functional knowledge of all the basic areas of chemistry including analytical, organic, physical, inorganic and biochemistry.
• Be able to integrate their knowledge in these areas and use their critical thinking skills in order to become problem solvers.
• Be proficient in chemistry laboratories, especially with respect to: Following and understanding general laboratory practice guidelines, especially proper laboratory safety. Performing chemical analyses. Performing simple chemical synthesis. Understanding and using modern chemical instrumentation.
• Students graduating with a minor degree in chemistry should be proficient in the basic skills of chemistry. They will: Be able to articulate clearly scientific information, both in written and oral forms. Be able to use effectively the scientific literature.

Students graduating with a baccalaureate degree in chemistry will be prepared for entry into professional schools (e.g., medical, dental, pharmaceutical, or veterinary), graduate programs, or chemical industries.

Program Requirements

Students may elect to obtain a minor in chemistry in conjunction with a major in another academic discipline. The minimum departmental requirements are 18 credit hours of chemistry with at least 9 of these hours from courses at the 300 or 400 level. To meet The College’s residency requirement for a minor in Chemistry, students must complete 9 credit hours from the Department of Chemistry at UMKC, and 6 of those 9 hours must be courses at the 300 or 400 level. While credit as a result of advanced placement (AP) scores and courses in Biochemistry (LS-BIOC 441, LS-BIOC 365, or LS-BIOC 366) may be used towards meeting minor requirements, they do not count towards meeting the residency requirement. In addition, the minor courses must be selected from more than one area of chemistry and a minimum grade of a C- is required for all minor and prerequisite courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CHEM 211</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 211L</td>
<td>Experimental General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 212R</td>
<td>General Chemistry II</td>
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</tr>
<tr>
<td>CHEM 212LR</td>
<td>Experimental General Chemistry II</td>
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</tr>
<tr>
<td>Select courses from at least two different areas below:</td>
<td>8</td>
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</tr>
<tr>
<td>Analytical</td>
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<tr>
<td>CHEM 341WI</td>
<td>Analytical Chemistry I: Quantitative Analysis</td>
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</tr>
<tr>
<td>CHEM 345R</td>
<td>Instrumental Analysis</td>
<td></td>
</tr>
<tr>
<td>CHEM 311</td>
<td>Laboratory Safety And Health I</td>
<td></td>
</tr>
<tr>
<td>CHEM 387</td>
<td>Environmental Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CHEM 390</td>
<td>Special Topics In Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM 395</td>
<td>Directed Readings In Chemistry</td>
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<tr>
<td>CHEM 442R</td>
<td>Analytical Chemistry II: Instrumental Analysis</td>
<td></td>
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<tr>
<td>Biochemistry</td>
<td></td>
<td></td>
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<tr>
<td>BMS 9265</td>
<td>Human Biochemistry I - Medical</td>
<td></td>
</tr>
<tr>
<td>CHEM 367</td>
<td>Bioorganic Chemistry</td>
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<tr>
<td>LS-BIOC 365</td>
<td>Human Biochemistry I</td>
<td></td>
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<tr>
<td>LS-BIOC 441</td>
<td>Biochemistry</td>
<td></td>
</tr>
<tr>
<td>Inorganic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 382</td>
<td>Inorganic And Organic Synthesis</td>
<td></td>
</tr>
<tr>
<td>CHEM 410</td>
<td>Chemical Literature</td>
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<tr>
<td>CHEM 451R</td>
<td>Inorganic Chemistry</td>
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<tr>
<td>Organic</td>
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<tr>
<td>CHEM 320</td>
<td>Elementary Organic Chemistry</td>
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<tr>
<td>CHEM 320L</td>
<td>Experimental Organic Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM 321</td>
<td>Organic Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CHEM 321L</td>
<td>Organic Chemistry Laboratory I</td>
<td></td>
</tr>
<tr>
<td>CHEM 322L</td>
<td>Organic Chemistry Laboratory II</td>
<td></td>
</tr>
<tr>
<td>Physical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 431</td>
<td>Physical Chemistry I</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td></td>
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<tr>
<td>-------------</td>
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</tr>
<tr>
<td>CHEM 432</td>
<td>Physical Chemistry II</td>
<td></td>
</tr>
<tr>
<td>or CHEM 330</td>
<td>Elementary Physical Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM 434</td>
<td>Molecular Spectroscopy</td>
<td></td>
</tr>
<tr>
<td>CHEM 437WI</td>
<td>Experimental Physical Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CHEM 480</td>
<td>Computer Applications To Chemical Problems</td>
<td></td>
</tr>
</tbody>
</table>

**Polymer**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 471</td>
<td>Introduction To Polymer Chemistry</td>
</tr>
</tbody>
</table>

**Total Credits**: 18
Cockefair Hall 106
Phone: (816) 235-1305
Fax: (816) 235-1308
http://cas.umkc.edu/classics

Mailing Address:
University of Missouri - Kansas City
Classical and Ancient Studies Program
Cockefair Hall 106
5121 Rockhill Road
Kansas City, MO 64110-2499

The field of Classics is the original interdisciplinary university field of study, illuminating the foundations of Western experience through the study of language, literature, religion, philosophy, art, archaeology and other subjects. Modern Classics programs continue to focus on the ancient Mediterranean world, particularly Greek and Roman culture, but also encompass the study of non-Western cultures and post-Greco-Roman societies. The broad scope and intellectual rigor of the Classical and Ancient Studies major and minor options help students to understand the contemporary world and to prepare for a wide range of careers.

The Classical and Ancient Studies program provides several options for the study of history, literature, art, culture, and language of the Ancient Mediterranean world. Students can major in English and complete the track in Classical, Medieval, and Early Modern Literature; major in History with a concentration in Antiquity and Medieval history; major in Foreign Languages with an emphasis in Classical Language and Cultures; or pursue a minor in Classical and Ancient Studies in conjunction with any of the degrees above or with any other degree program.

Faculty

Faculty:
Jeff Rydberg-Cox, Ph.D., Contact Information (http://www.umkc.edu/lookup/details.cfm?id=%28%26%3D%3F7%5F%40L%2FWML%20%0A) Professor, Department of English; Classical and Ancient Studies Program Director
Elpida Scott, M.A., Contact Information (http://www.umkc.edu/lookup/details.cfm?id=%28%26%3D%3F7%5E0%20%29V%5DX%20%0A) Instructor, Classical and Ancient Studies Program
Cynthia Jones, Ph.D., Contact Information (http://www.umkc.edu/lookup/details.cfm?id=%28%26%3D%3F7%5E0%28%25W%3D%28%20%0A) Instructor, Classical and Ancient Studies Program
James Falls, Ph.D., Contact Information (http://www.umkc.edu/lookup/details.cfm?id=%28%26%3D%3F7%5F04%2AU%2DT%20%0A) Associate Professor Emeritus, Department of History

Affiliated Faculty:
Virginia Blanton, Ph.D., Contact Information (http://www.umkc.edu/lookup/details.cfm?id=%28%26%2D%3B6%5D%20H%2BV%2D%40%20%0A) Chair, Department of English
Robert Cohon, Ph.D., Contact Information (http://www.umkc.edu/lookup/details.cfm?id=%28%26%2D%3B5%5E0L%25W%5C%20%0A) Research Associate Professor, Department of Art and Art History; Curator of Ancient Art, Nelson-Atkins Museum of Art
Laurie Ellinghausen, Ph.D., Contact Information (http://www.umkc.edu/lookup/details.cfm?id=%28%26%2D%3B5%5F%28%2AV%2D%20%0A) Associate Professor, Department of English
Linda Mitchell, Ph.D., Contact Information (http://www.umkc.edu/lookup/details.cfm?id=%28%26%2D%3B5%5E%20%28%2CVM%28%20%0A) Martha Jane Phillips Starr/Missouri Distinguished Professor of Women’s and Gender Studies
Tina Niemi, Ph.D., Contact Information (http://www.umkc.edu/lookup/details.cfm?id=%28%26%3D%3F7%5F%20%2FW%2D%20%0A) Adjunct Lecturer
Ann Raab, Ph.D., Contact Information (http://www.umkc.edu/lookup/details.cfm?id=%28%26%2D%35%5F%40H%29V%3DX%20%0A) Adjunct Lecturer
L. Mark Raab, Ph.D., Contact Information (http://www.umkc.edu/lookup/details.cfm?id=%28%26%2D%3B5%5F%2FV%5DH%20%0A) Adjunct Lecturer
Massimiliano Vitiello, Ph.D., Contact Information (http://www.umkc.edu/lookup/details.cfm?id=%28%26%2D%3B5%5E%20H%29W%5DL%20%0A) Assistant Professor, Department of History

Undergraduate Degrees That Offer a Classics Emphasis:
The Classical and Ancient Studies program provides several options for the study of history, literature, art, culture, and language of the Ancient Mediterranean world. Students can major in English and complete the track in Classical, Medieval, and Early Modern Literature; major in History with a concentration in Antiquity and Medieval history; major in Foreign Languages with an emphasis in Classical Languages and Cultures; or pursue a minor in Classical and Ancient Studies in conjunction with any of the degrees above or with any other degree program.

- English Department: Emphasis in Classical, Medieval, and Early Modern Literature (p. 140)
Classical and Ancient Studies Program

- Foreign Languages and Literatures Department: Emphasis in Greek and Latin (p. 323)
- History Department: Antiquity and Medieval History Concentration (p. 407)
- Minor in Classical and Ancient Studies (p. 143)

Classics Courses
CLASSICS 119 Myth and Literature Credits: 3
A study of classical myth including readings from Homer to Ovid, analysis of selected myths in later literature, art, and music, and a study of contemporary definitions and approaches to myth.
Cross Listings: ENGLISH 119.

CLASSICS 120 Literary Monstrosities Credits: 3
This course explores representations of monsters in literature. Students are introduced to different ways of thinking about monstrosities from a range of cultural and historical perspectives, as well as through a variety of materials in order to approach this question from an interdisciplinary perspective.
Cross Listings: ENGLISH 120.

CLASSICS 131 Seven Wonders and Beyond: Archaeological Wonders of the Ancient World Credits: 3
This is a survey of the archaeology of Egypt and the Near East, the Aegean cultures of Crete and Mycenae, and the world of classical Greece and Italy. In addition, archaeological wonders of Europe and the New World will be discussed.

CLASSICS 210 Foundations Of Ancient World Literature I Credits: 3
This course studies ancient world literature such as The Descent of Inanna, Egyptian love poetry, Hebrew Scriptures, the epics of Homer and Virgil, the Analects of Confucius, and the wisdom of Laozi. The course also considers ancient creation epics such as the cosmic battle between Marduk and Tiamat, the Metamorphosis of Ovid, and the great Indian epic The Ramayana.

CLASSICS 300 Special Topics Credits: 1-3
A course about a selected field, genre or individual figure from the ancient world that is not part of the program's regular offerings. May be repeated for credit.

CLASSICS 300A Special Topics Credits: 1-3
A course about a selected field, genre or individual figure from the ancient world that is not part of the program's regular offerings. May be repeated for credit.

CLASSICS 300CB Women In The Ancient World Credits: 3
This course focuses on the history, representation, literature, social lives, and political roles of women in ancient civilization including Egypt, Mesopotamia, the Biblical World, Greece, and Rome. It integrates methodologies from history, art history and archaeology, literary studies, and women's studies.

CLASSICS 300CY Ancient World in Cinema Credits: 3
This course will explore the tradition of depicting the ancient Mediterranean world in film from the early silent era to the present. Topics to be covered include the ways that filmmakers respond to literary and historical sources from the ancient world, interact with the artistic tradition of films about the ancient world, the relation of these films to other works by the same creative personnel (directors, actors, writers, producers, etc.), and the political and cultural contexts in which the films were released.

CLASSICS 300CZ Archaeology Of Ancient Disasters Credits: 3
Remarkable human achievements are revealed by archaeological research, but the human past was frequently shaped as well by disasters of natural and human origin. Drawing on case studies that include data from the geosciences, archaeological excavations, and historical sources, this class examines how earth processes, the biosphere, and human cultural behavior were all sources of catastrophe. We begin with the geological context of disaster, including earthquakes, volcanic eruptions, climate change, and soil depletion. Next, we examine how ancient societies respond to disease, an ever present threat from the biological environment. Finally, we look at how ancient human groups were changed by stresses of cultural origin, including overpopulation, depletion of vital resources, and warfare. The study of ancient disasters not only gives us a wider understanding of human history, it may offer lessons for coping with future catastrophes.

CLASSICS 318 Bible As Literature Credits: 3
A critical study of the major portions of the Old and New Testaments and the Apocrypha, with special attention to the development of literature from oral tradition, the literary genres, themes and archetypes represented in the collection, and the diction and style which have influenced later literature. Consideration also of the relation of Biblical literature to the historical, religious, and cultural milieu of the ancient Near East.
Cross Listings: ENGLISH 318.
CLASSICS 340AWI Classical Literature In Translation Credits: 3
This course will focus on representative authors and works from the Greek and Roman Classical periods, such as Homer, Sophocles, Euripides, Aeschylus, Aristophanes, Plato, the Greek Lyrics, Virgil, Horace, Juvenal, Ovid and Plautus.
Prerequisites: RooWriter.

CLASSICS 369 Introduction to Prehistoric and Classical Archaeology Credits: 3
An introduction to archaeological research methods that traces human origins and cultural development from the earliest fossil evidence to the threshold of written history and civilization. This class emphasizes the evolutionary and cultural developments that allowed our ancestors to colonize the continents and develop lifeways involving hunting and gathering, farming and urbanism.

CLASSICS 370 Archaeology as Anthropology: The Development of Human Societies Credits: 3
This class examines the development of archaeology as a distinctive branch of anthropology, and archaeology’s role in a centuries-long debate about the causes of cultural variation and the development of human societies. This class examines how the Enlightenment, colonialism, the geological discovery of Deep Time and the Darwinian Revolution not only give rise to anthropology and archaeology, but launched an enduring debate about how and why we study cultural behavior.
Cross Listings: ANTHRO 385.

CLASSICS 376 Concepts of the Hero in Ancient Literature and World Cinema Credits: 3
This course explores how concepts of heroism are related to the principles of values and civic duty in a wide range of ancient world cultures and contemporary world cinemas. Students will also demonstrate an understanding of how these values impact individual heroes and their interactions with others in their society.
Cross Listings: ENGLISH 376, COMM-ST 323.

CLASSICS 384 Frauds, Myths and Mysteries in Archaeology Credits: 3
Using archaeological hoaxes, myths, and mysteries from around the world – including local and regional examples - students will use science to make good judgments about information they receive in today’s world. This course will demonstrate how science approaches questions about human antiquity and will show where pseudoscience falls short. (Lecture/on-line asynchronous).
Cross Listings: GEOLOGY 384.

CLASSICS 391WI Ancient Greek and Roman Medicine Credits: 3
This course explores the practice of medicine in the Ancient Greek and Roman Worlds from 800 BCE until 300 CE. Students will read primary sources in English and will also be introduced to Greek and Latin grammar and medical vocabulary so that they can understand and study essential terms from the history of medicine in their original language.
Prerequisites: RooWriter.

CLASSICS 469 Archaeology And Biblical History Credits: 3
An examination of ancient Israel as she emerges from the ruins of the past, both lapidary and literary. Through a study of the "mute documents," artifacts man-made (storied cities, household utensils, inscribed shards from Jericho to Jerusalem) we gain an insight indispensable for Biblical studies, for ancient Near Eastern history.
Cross Listings: HISTORY 469.

CLASSICS 470 Ancient Egypt Credits: 3
This course describes the political, social and cultural evolution of ancient Egypt from pre-dynastic times, with major emphasis upon the Old, Middle, and new Kingdoms (especially the 18th dynasty and the reign of Akhenaton).
Cross Listings: HISTORY 470.

CLASSICS 470P Ancient World: The Social History Of The Ancient World Credits: 4
The optional four-credit-hour component (modified independent study) will concern the social aspects of these civilizations, i.e., their daily lives. Readings and audiovisual aids will be used to help the student who will be expected to choose one aspect of each civilization, such as women, slavery, merchants, education, medicine, etc., and write a five-page paper about that topic for each period, i.e, Mesopotamia, Egypt, Greece and Rome.
Cross Listings: HISTORY 470P.

CLASSICS 471 Ancient Greece Credits: 3
This course begins with a survey of the pre-classical Minoan and Mycenaean civilizations and then describes the rise of prominent Greek city-states (with particular emphasis upon the evolution of Sparta and the political, social and cultural contributions of Athens). The course concludes with the rise of Macedon and Alexander’s conquests and significance.
Cross Listings: HISTORY 471.

CLASSICS 471P Ancient World: The Political Structure Of The Ancient World Credits: 4
The four-hour lecture period on weeknights will emphasize the historical aspects of the ancient civilizations. The lectures will be chronologically organized to focus upon their evolution from their rise to their collapse.
Cross Listings: HISTORY 471P.
CLASSICS 472 Ancient Rome Credits: 3
This course covers Roman history from its origins (including the Etruscans) to the decline of the imperial system. Particular emphasis is placed upon the political, social and economic developments in the Republic, the death of the Republic, the early Principate, and the factors that led to Rome's decline in the ancient world.

Cross Listings: HISTORY 472.

CLASSICS 472P Ancient World: The Cultural & Intellectual Dimensions Ancient Civ Credits: 4
The four weekend periods will provide the students with a general picture of these civilizations: society, religion, economics, and culture (w.f., arts, literature, philosophy, science, etc.). Guest lecturers, slides, films and video cassettes will be used to introduce the varied aspects of these ancient peoples.

Cross Listings: HISTORY 472P.

CLASSICS 474 Late Antiquity: The Transformation of the Mediterranean World (200–600 AD) Credits: 3
The decline of the Roman Empire and the barbarian invasions transformed the Mediterranean and European worlds, forming the foundation of Europe and the Islamic world. Students will investigate the multicultural society of Late Antiquity and become familiar with the primary sources for the period.

Cross Listings: HISTORY 474, HISTORY 5574.

CLASSICS 475WI History Of Ancient Israel Credits: 3
Judaism has had a tremendous impact on our civilization and yet most Americans are only dimly aware of its origins and development. This course will trace the roots of the Jewish religion in its historical context from its beginnings through the formation of rabbinic culture. The rise of Christianity will be examined in its original Judaic context, and recent discoveries, particularly those pertaining to the Dead Sea Scrolls, will be interpreted.

Prerequisites: RooWriter.

Cross Listings: HISTORY 475WI.

CLASSICS 499 Senior Tutorial Credits: 3
A three-hour comprehensive reading and research tutorial leading to the writing of a senior paper. It consist of tutorial sessions and independent research leading to a major paper using original source materials.

Greek Courses
GREEK 110 Elementary Ancient Greek I Credits: 3
The goal of this course is an ability to read classical Greek. The student will be introduced to the fundamentals of grammar and the basic vocabulary of the language and will do exercises in the reading and writing of sentences. Continuous passages of Greek will be presented by the end of the semester.

GREEK 120 Elementary Ancient Greek II Credits: 3
A continuation of the study of the grammar and vocabulary of classical Greek, with an increasing emphasis on developing skills in translation. By the middle of the semester students will be introduced to selections from Plato, Herodotus or Homer.

Prerequisites: GREEK 110.

GREEK 211 Intermediate Ancient Greek I Credits: 3
Instruction of Greek on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit.

Prerequisites: GREEK 120.

GREEK 221 Intermediate Ancient Greek II Credits: 3
Continuation of GREEK 211. May not be repeated for credit.

Prerequisites: GREEK 211.

GREEK 301 Herodotus Credits: 3
Selected readings in Ancient Greek from Herodotus' Histories.

Prerequisites: GREEK 211.

GREEK 302 Homer Credits: 3
Selected readings in Ancient Greek from Homer's Iliad or Odyssey.

Prerequisites: GREEK 211.

GREEK 310 Selected Readings in Ancient Greek and Rhetoric Credits: 3
Selected readings in Ancient Greek from works by Plato, Aristotle, or the Attic Orators.

Prerequisites: GREEK 211.

GREEK 311 Drama and Lyric Poetry Credits: 3
Selected readings in Ancient Greek from plays by Aeschylus, Sophocles, Euripides, or the Lyric Poets.

Prerequisites: GREEK 211.
GREEK 312 Greek Narrative Prose Credits: 3
Selected readings in Ancient Greek from Herodotus, Thucydides, Xenophon, Lucian, etc.
Prerequisites: GREEK 211.

GREEK 490 Special Readings in Greek Credits: 1-3
Intensive readings in period or genre or literary figure to be selected by the student in consultation with the instructor. Available only to advanced Greek students.

Latin Courses
LATIN 110 Elementary Latin I Credits: 3
Elementary Latin I introduces students with no previous Latin experience to the fundamentals of Latin grammar. The course is continued with LATIN 120.

LATIN 120 Elementary Latin II Credits: 3
Elementary Latin II is a continuation of LATIN 110. This course focuses on the fundamentals of Latin grammar and morphology, and students will read longer Latin passages.
Prerequisites: LATIN 110.

LATIN 211 Second Year Latin Readings I Credits: 3
This course introduces students to extended readings from Roman authors in Latin. Students' knowledge of basic Latin grammar, vocabulary, and morphology will be reviewed and reinforced.
Prerequisites: LATIN 120.

LATIN 221 Second Year Latin Readings II Credits: 3
Prerequisites: LATIN 211.

LATIN 280 Special Intermediate Latin Topics I Credits: 2-4
Instruction of Latin on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit.
Prerequisites: LATIN 110, LATIN 120.

LATIN 290 Special Intermediate Latin Topics II Credits: 2-4
Continuation of LATIN 280. May not be repeated for credit.
Prerequisites: LATIN 280.

LATIN 301 Virgil Credits: 3
Selected readings in Classical Latin from the works of Virgil.
Prerequisites: LATIN 211.

LATIN 302 Ovid Credits: 3
Selected readings in Classical Latin from Ovid's Metamorphoses.
Prerequisites: LATIN 211.

LATIN 311 Prose Fiction and Epistolography Credits: 3
Selected readings in Classical Latin from Apuleius, Cicero, Petronius, Pliny, etc.
Prerequisites: LATIN 211.

LATIN 314 Lyric and Elegiac Poetry Credits: 3
Selected readings in Classical Latin from Catullus, Horace, Martial, Ovid, etc.
Prerequisites: LATIN 211.

LATIN 490 Special Readings In Latin Credits: 1-3
Intensive readings in period or genre or literary figure to be selected by the student in consultation with the instructor. Available only to advanced Latin students.
English Department: Emphasis in Classical, Medieval, and Early Modern Literature

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

College of Arts & Sciences Degree Requirements
Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
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<tr>
<th>Code</th>
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<th>Credits</th>
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<td>Science and Math Division of CAS</td>
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<td>Writing Intensive Course (300-level or above)</td>
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<td>Laboratory Science Experience</td>
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<td>Total Credits</td>
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</table>

¹ ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

² This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

Students wishing to focus on ancient literatures in translation can pursue a degree in English with an emphasis in Classical, Medieval, and Early Modern Literature. This track involves a core of three survey courses to give students grounding in each of the three periods. Students also take one elective from each time period that allows them to study each period in more depth, a course such as ‘Shakespeare In Film’, ‘The Ancient World in Film’, or ‘Arthurian Legends’ that allows them to study how these literatures have been received in modern society; a course such as ‘History of English’, ‘Old English’, ‘Ancient Greek’, ‘Classical Latin’, or the ‘History and Principles of Rhetoric’ that allows students to understand the linguistic backgrounds of these literatures. Students complete the degree with three electives that can be taken in the English department or many other departments in the college including Classics, History, Art History, Philosophy, and Geosciences. For more information, see the relevant catalog section for the English Department (p. 258).
Foreign Languages and Literatures Department: Emphasis in Greek and Latin

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

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<td>or MATH 116</td>
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<td>Precalculus</td>
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1. ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.
2. This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

If you would like to focus on the study of ancient languages, you can pursue a degree in Foreign Languages with an emphasis in Greek and Latin. This track involves a core set of language courses that allow you to become a proficient reader of Ancient Greek and Latin texts. This language core is supplemented with electives offered by the Classics Program, the History Department, the English Department, the Art and Art History Department, and the Philosophy Department. These electives are taught using translated texts, and these courses allow you to tailor your program of study to your specific interests in history, art or literature. In addition to these electives, students must also complete a capstone course. For more information, see the relevant catalog section for the Foreign Languages and Literatures Department (p. 323).
History Department: Antiquity and Medieval History Concentration

Students who are interested in ancient and medieval history can pursue a concentration in Antiquity and Medieval history as part of a history major. The history major includes two foundation courses that survey world history, four courses in the Classics area of concentration, four courses in areas outside the area of concentration, and a two-semester final research sequence: History 301WI “Historiography and Method,” and History 498WI “Senior Capstone Seminar.” For the Antiquity and Medieval history concentration, students take four courses in Ancient or Medieval History. Two of these courses can be taken in departments other than history including Classics, English, Art History, Philosophy, and Geosciences. For more information, see the relevant catalog section for the History Department (p. 407).
Minor in Classical and Ancient Studies

Student Learning Outcomes

Students graduating from this program will:

• Knowledge of Historical, Literary, Artistic, and Cultural Contexts Students will be able to reproduce in broad outline the main periods of Ancient Mediterranean history, along with significant events and/or developments in each period. Students will also be able to demonstrate their awareness of basic literary, philosophical, social, and cultural developments that affect the interpretation of texts, artifacts, and historical events from cultures and across the Mediterranean.

• Understanding of the Reception of the Ancient World Students will be able to demonstrate knowledge of at least one of the ways in which material from the Ancient Mediterranean World has been received and integrated into other later artistic, literary, historic, or cultural contexts.

• Proficiency With Primary Sources Students will be able to identify and articulate scholarly problems based on interaction with primary source materials from the ancient world. Students who elect to take Greek or Latin will demonstrate further proficiency working with primary source materials in the original languages.

• Proficiency in Research Methods Students will be able to analyze secondary source materials and describe current scholarly conversations about the ancient world.

• Communication of Knowledge Students will be able to communicate results of their work effectively to others in expository prose, oral presentations, or electronic media such as films or web pages.

Students can pursue a minor in Classical and Ancient Studies in conjunction with any degree program. The minor is an 18 hour program that allows students the flexibility to pursue their individual interests in the ancient world. To complete the minor students take 18 hours of credit selected in consultation with program advisor. Nine of these hours must be at or above the 300-level. A maximum of six credit hours can count towards both a major and the Classical and Ancient Studies minor.

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<tr>
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<td>Frauds, Myths and Mysteries in Archaeology</td>
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<td>or CLASSICS 210</td>
<td>Foundations Of Ancient World Literature I</td>
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<td>CLASSICS 369/ANTHRO 386</td>
<td>Introduction To Prehistoric And Classical Archaeology</td>
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<td>CLASSICS 370/ANTHRO 385</td>
<td>Archaeology as Anthropology: The Development of Human Societies</td>
<td>3</td>
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<tr>
<td>CLASSICS 376/COMM-ST 323/ENGLISH 376</td>
<td>Concepts of the Hero in Ancient Literature and World Cinema</td>
<td>3</td>
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<tr>
<td>CLASSICS/HISTORY 469</td>
<td>Archaeology And Biblical History</td>
<td>3</td>
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<td>CLASSICS/HISTORY 471</td>
<td>Ancient Greece</td>
<td>3</td>
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<td>CLASSICS/HISTORY 472</td>
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<td>ENGLISH 445</td>
<td>History And Principles Of Rhetoric</td>
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<tr>
<td>PHILOS 310WI/ENGLISH 499</td>
<td>Ancient Philosophy</td>
<td>3</td>
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</table>

Any course with the curricular designation of CLASSICS, GREEK, or LATIN (or associated cross-listings)

Total Credits 18
The Department of Communication Studies produces students who think creatively and critically and who have developed oral, written, and visual communication skills essential to professional and personal collaboration, media production and analysis, cultural awareness, and community engagement. The Department of Communication Studies offers a variety of program areas, including interpersonal communication, public communication, print and digital journalism, advertising, public relations, media theory and history, as well as radio, digital media, and film/video production.

Students graduating from the Department of Communication Studies Will:

- Demonstrate proficiency in formal writing, oral presentation and visual communication.
- Create messages and media works appropriate to their audience, purpose and context.
- Explain, synthesize and apply Communication research methods, theories, perspectives, principles and concepts.
• Articulate the connection between communication and culture.

The Bachelor of Arts in Film & Media Arts provides rigorous training in media production focused on individual creative development and cinematic storytelling. The degree integrates the study of film history with hands-on production in a variety of filmmaking practices including narrative, documentary, experimental and animation.

The Interpersonal and Public Communication emphasis offers study in the areas of public address and rhetoric, interpersonal and intercultural communication, organizational communication and areas associated with human communication behavior including advertising, public relations and strategic communication.

The Journalism and Mass Communication emphasis offers concentrated study in print and electronic journalism, radio, television, advertising and public relations.

The Film and Media Studies emphasis provides an interdisciplinary study of film and media, including the history and theory of global cinema culture, critical media studies and media production.

UMKC Debate
The UMKC debate program operates from the Department of Communication Studies. UMKC offers a great blend of quality education, extremely competitive debate program and a wonderful city to spend your college years in.

• UMKC Debate Team is open to all UMKC students including those with no previous debate experience. Interested students can email the Director of Debate: vegan@umkc.edu.

• Travel Schedule: UMKC has a full travel schedule and travels the NDT/CEDA policy debate circuit. This includes tournaments throughout the region and across the country.

• Squad Size: UMKC has a medium-sized squad which has the benefit of allowing all debaters the ability to go to many tournaments throughout the year. Each debater will have the chance to flourish at regional and national tournaments.

• Coaching: UMKC currently has an excellent coaching staff. Our excellent student-to-coach ratio guarantees hands-on coaching and extensive focus for each debater.

Special Laboratories
The department has media classrooms and production spaces for student projects that include a video production studio with lighting grid and greenscreen capabilities, a sound recording facility with narration booth and radio console, a convergence journalism studio and post production media labs outfitted with the latest software. A student equipment check-out lab maintains an extensive inventory of production equipment including cameras, audio equipment, lights, dollies, tripods and more – everything students need to create outstanding media productions. Our facilities foster the ability to light, shoot and edit professionally, allowing the students to tell compelling stories that make an impact on audiences.

K-ROO Radio is a student-run multimedia organization that aims to provide students, faculty, staff, and the Kansas City community with quality entertainment and information about UMKC events and organizations. Through Internet radio and live events, k-roo.org (http://www.k-roo.org) provides a platform to reach a worldwide audience to promote and support student endeavors, as well as create programming in music, sports, news, and spoken word/comedy/drama productions. K-ROO Radio, which reports to the Office of Student Involvement, is open to all students of any major and is located on the third floor of the Student Union at 5100 Cherry St. in room 303B. Internships for production and promotions are available through the Communication Studies Department.

The nationally syndicated public radio program, New Letters on the Air, features creative writers from around the world and is produced in association with the internationally distributed New Letters magazine and the Communication Studies department. Broadcast locally on KCUR-FM, the weekly program is also available via www.newletters.org/radio (http://www.newletters.org/radio) and podcasts - KCUR-FM http://kcur.org/ is the 100,000-watt public radio station licensed to UMKC. Programming includes offerings from National Public Radio and Public Radio International, as well as local news from the award-winning news department. Internships are available year round to Communication Studies students.

Special Awards and Scholarships
The Alex and Josephine B. Coleman Scholarship is awarded each year to an outstanding junior- or senior-level student. The award recognizes meritorious undergraduate work in communications and encourages program completion. The Suzanne Crispin Williams Scholarship is awarded annually to a non-traditional returning female student in Communication Studies or Women's Studies. A Film Finishing Fund provides grants to intermediate and advanced production students and the Student Film League holds showcases of student film and video projects. Cash prizes may be awarded for winning entries. The Faye Kircher Public Speaking Contest is held in the fall and spring semesters. Students enrolled in COMM-ST 110 courses are selected by their classmates for participation in the public speaking contest. Cash prizes are awarded. The Fred G. Andrews Jubilee Creative Cinema Fund will provide support for sponsored or co-sponsored workshops, programming for Film and Media Arts, as well as internships and scholarships for students majoring in Communication Studies with an emphasis in Film and Media Arts. The Carol Koehler Memorial Scholarship is awarded annually to a Communication Studies student enrolled in a three hour internship. Scholarship information can be found on the Communication Studies website at http://cas.umkc.edu/Communication_Studies/scholarships.cfm.
Career Implications

Communication students may find rewarding careers in the multifaceted communication industry. The program is excellent preparation for careers in media production, marketing, public relations, advertising, radio, nonprofit organizations and human resources.

Further Educational Opportunities

The B.A. in Communication Studies prepares students for advanced study in communication studies, film and media, as well as in graduate programs such as law, medicine, business, public administration; and those associated with the applied and performing arts.

Internship Program

All students completing the B.A. in Film & Media Arts and emphasis in Journalism and Mass Communication are required to complete an internship. Although an internship is not required for students completing an emphasis in Interpersonal and Public Communication or Film and Media Arts, the Communication Studies Department strongly recommends the internship experience as a means of linking theory to practice, and preparing students to work effectively in professional settings. Internships provide students with on-the-job experience which is both practical and purposeful. The internship program allows opportunities for experience on a national and international level.

The Internship course number is COMM-ST 484. Each intern is required to enroll in at least one credit hour. One credit hour requires 75 hours of internship work. Two credit hours require 150 hours of internship work. Three credit hours require 225 hours of internship work. Four credit hours require 300 hours of internship work.

Information on Internship Opportunities is available in the department office and at http://cas.umkc.edu/Communication_Studies/internships.cfm, and through the Roo Career Network https://umkc-csm.simplicity.com/. The coordinator for the Internship Program is Linda Kurz Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=kurz)

Advising System

Current program requirements are available in the department office. Students must file a formal declaration of major with a departmental advisor. The department highly recommends that students meet with their major advisor before enrolling in classes each semester. At 90 hours or one year prior to graduation, students should file for a final degree audit with their major advisor and with the College of Arts and Sciences. Undergraduate advisors are Linda Kurz Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=kurz) and Judith McCormick Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=mccormick). Students in the Film and Media Studies Emphasis should contact Caitlin Horsmon Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName= horsmon); or Lyn Elliot Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName= elliot) for advising in that emphasis area.

Financial Aid

Students with University work-study assignments are welcomed as student assistants in various aspects of the department's activities.

Faculty

Joan E. Aitken Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=aitken); Retired professor emerita of communication studies; B.A. (Michigan State University); M.A., Ed.D. (University of Arkansas).

Gregory D. Black Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=black); Retired professor emeritus of communication studies; B.S. (Bowling Green State University); M.A. (California State); Ph.D. (University of Kansas).

Mitchell Brian Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName= brian); associate teaching professor of communication studies; B.A. (California State University, Northridge); M.A. (University of Missouri-Kansas City).

Linda M. Collier Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName= collier); Retired associate professor of communication studies; B.A., J.D. (University of Missouri-Kansas City).

Rhiannon Dickerson Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=dickerson); lecturer, communication studies; B.A. (University of Central Missouri); M.F.A. (Iowa Writers Workshop, University of Iowa).

Jean Dufresne Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=dufresne); lecturer, communication studies; B.A. (Morningside College); M.A. (University of Iowa); Ph.D. (University of Nebraska-Lincoln).

Angela C. Elam Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName= elam); assistant teaching professor of communication studies and radio producer; B.A. (Clemson University); M.F.A. (University of Georgia-Athens).

Lyn Elliot Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName= elliott); professor of communication studies; B.A. (Carleton College); M.A., Ph.D. (University of Iowa); M.F.A. (University of Iowa).
Gregory Gutenko Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=gutenko); associate professor of communication studies; B.A., M.A. (University of Missouri-Kansas City); Ph.D. (University of Missouri-Columbia).

Caitlin M. Horsmon Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=horsmon); associate professor of communication studies; B.A. (Oberlin College); M.A., M.F.A. (University of Iowa).

Steven Kraske Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=kraske); associate teaching professor of communication studies; B.A. (University of Wisconsin-Madison).

Gaylord V. Marr; Retired professor emeritus of communication studies; B.A., M.A. (University of Nebraska).

Jason Martin Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=martin); assistant professor of communication studies; B.B.A., B.S. (University of Kentucky); M.A. (The Ohio State University); Ph.D. (University of Kentucky).

Judith McCormick Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=mccormick); associate teaching professor of communication studies; B.A., M.A. (Texas Tech University); Ph.D. (Kansas State University).

Michael K. McDonald Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=mcdonald); associate professor of communication studies; B.S., M.A. (University of Missouri-Kansas City); Ph.D. (University of Kansas).

Steven P. Melling Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=melling); assistant teaching professor of communication studies; B.S. (Northwestern Missouri State University); M.A., Ph.D. (University of Kansas).

Peter Morello Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=morello); associate professor of communication studies; B.A. (University of Wisconsin-Madison); M.S. (Columbia University).

Michael Neer Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=neer); Retired, professor emeritus of communication studies; B.A., M.A., Ph.D. (University of Missouri-Columbia).

Michael W. Schaefer Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=schaefer); lecturer of communication studies; B.A., M.A. (University of Missouri-Kansas City).

Robert B. Unger Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=unger); Retired, professor emeritus of communication studies and English; B.A. (University of Missouri-Columbia); M.P.A. (Harvard University).

Ye Wang Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=wang); assistant professor of communication studies; B.A. (Beijing University of Posts and Telecommunications); M.A. Linguistics (Beijing Foreign Studies University); M.A., Ph.D. Journalism (University of Missouri).

1 Associate or Adjunct Graduate Faculty
2 Members of UMKC Graduate Faculty
3 Members of UMKC Doctoral Faculty
4 Located at UM-St. Louis campus

Undergraduate
Undergraduate Degrees:
- Bachelor of Arts: Communication Studies
- Film and Media Studies Emphasis
- Journalism and Mass Communication Emphasis
- Interpersonal and Public Communications Emphasis
- Bachelor of Arts: Film and Media Arts (p. 173)
- Minor in Communication Studies
- Minor in Film Studies

Courses
COMM-ST 110 Fundamentals Of Effective Speaking And Listening Credits: 3
An introduction to the dimensions of effective platform speaking with special emphasis on developing critical listening skills. Lecture, performance, and discussion.
COMM-ST 110 - MOTR COMM 110: Fundamentals of Public Speaking
COMM-ST 140 Principles Of Communication Credits: 3
An interdisciplinary introduction to the study of contemporary communication studies including a consideration of intrapersonal, interpersonal and public communication.

COMM-ST 203 Introduction to Journalism Credits: 3
Introduction to the styles and techniques of reporting and writing basic news through assignments in straight news, features and in-depth stories. Exposure to the history and principles of American journalism. Practical application in writing news and news feature articles.

COMM-ST 212 Argumentation And Debate Credits: 3
A study of the nature of logical discourse generated through the preparation and presentation of oral argument within the framework of the debate format. Lecture, performance and discussion.

COMM-ST 213 Argumentation And Critical Thought Credits: 3
An introduction to the theory and application of argument construction. The course is designed to examine the fundamental strategies of critical thinking and to help understand the relationships among critical thought and argumentation development and refutation. This course is designed for application across many fields and is not specific to debate or oral argument.

COMM-ST 220 Introduction: Modern Communications Media Credits: 3
A comprehensive survey of the content, structure and control of the communications media in American society—newspaper, motion pictures, radio and television; providing an informational frame of reference that will enable discerning students to formulate and apply useful critical concepts in evaluating America’s media environment.

COMM-ST 230 Introduction to Film Studies Credits: 3
The course is an introduction to the study of film as an art form and industrial practice. Students will study the basics of film analysis, cinematic formal elements, genre, narrative structure and the cultural functions of cinema.

Prerequisites: DISC 100 or ENGLISH 110.

COMM-ST 250 Introduction to Film and Video Production Credits: 3
This course teaches the fundamentals of media making using digital video. Students will learn techniques in pre-production planning, camera, sound, and editing by creating a series of short videos. Students will also learn to think analytically about film, and to apply insights about what gives an image impact and meaning to their own work. It is the foundation and prerequisite for all film and video production courses in the department.

COMM-ST 260P Introduction To Web Communications Credits: 4
This four credit hour web-based multimedia course will examine the process of critically evaluating information delivered on the Internet. It is designed as an introduction for adults and students who use Internet information for work and/or school. The process of critically evaluating Internet information will be described in four modules: traditional evaluation techniques; searching and researching strategies; Internet evaluation techniques and Internet evaluation resources.

COMM-ST 265 Visual Communication Credits: 3
This course introduces the creative capture and design of photographic images as used in both print and new media for advertising, journalism, and public relations. Basic artistic and production methods are examined, including real-world professional practices and the creative control of process variables.

COMM-ST 270 Introduction to Digital and Mobile Journalism Credits: 3
An introduction to the practices and principles of creating video, combined with audio, graphics, and data information, by newsgathering in the field, for both current and emerging mobile, non-broadcast, digital and social media platforms.

COMM-ST 300CY Ancient World in Cinema Credits: 3
This course will explore the tradition of depicting the ancient Mediterranean world in film from the early silent era to the present. Topics to be covered include the ways that filmmakers respond to literary and historical sources from the ancient world, interact with the artistic tradition of films about the ancient world, the relation of these films to other works by the same creative personnel (directors, actors, writers, producers, etc.), and the political and cultural contexts in which the films were released.

COMM-ST 308 Introduction To The Study Of Human Communication Credits: 3
This course serves to introduce students to the basic theories, perspectives and methodologies used (historically and currently) in the study of speech, interpersonal and mass communication.

COMM-ST 311 Radio & Television Performance Credits: 3
A study of the specialized radio and television performing and operating situations and techniques simulated and evaluated in studio sessions. Lecture, discussion and performance.
COMM-ST 312 Advanced Public Speaking Credits: 3
Advanced study of rhetorical theory and its application to the presentation and criticism of public discourse.

Prerequisites: COMM-ST 110.

COMM-ST 312P Advanced Public Speaking Credits: 3
Advanced study of rhetorical theory and its application to the presentation and criticism of public discourse.

Prerequisites: COMM-ST 110.

COMM-ST 314 Reporting Credits: 3
Reporting is an advanced news gathering and reporting course designed to sharpen the writing skills and critical thinking of student journalists.

Prerequisites: COMM-ST 203 or ENGLISH 203.

COMM-ST 314WI Reporting Credits: 3
A seminar of practical application in advanced reporting. Assignments to cover news events and to pursue in-depth news reports on the campus and off.

Prerequisites: COMM-ST 203 or ENGLISH 203; RooWriter.

COMM-ST 317 Persuasion Credits: 3
A study of the rhetorical, psychological and ethical principles of influencing and controlling individuals and groups, and of the methods of adapting to various attitudes and audiences through the preparation, presentation and evaluation of persuasive speeches. Lecture, discussion and performance.

Prerequisites: COMM-ST 110.

COMM-ST 320 Mass Media, Culture And Society Credits: 3
A critical exploration of the role of mass media (and its reception) in the social construction of reality. The course employs theoretical, analytical and empirical approaches derived from multidisciplinary sources, particularly "critical theory" semiology, post-structuralism, psychoanalysis and ethnography. Term paper required.

COMM-ST 322 Oral Performance In Speech Communication Credits: 3
This course is designed to develop and strengthen oral communication for students pursuing careers in pre-law, media, human resources, and education as well as increase the skills of potential professional speakers. The student will learn to develop emotional, vocal, physical, and non-verbal skills through an investigation of poetry, prose, and non-fiction literature. Through the process of reading, studying, investigating, rehearsing, and performing literary and nonliterary works, the students will learn to pay particular attention to the voice embodied in a given text and the cultural and social context within which that voice speaks.

Prerequisites: COMM-ST 110.

COMM-ST 323 Concepts of the Hero in Ancient Literature and World Cinema Credits: 3
This course explores how concepts of heroism are related to the principles of values and civic duty in a wide range of ancient world cultures and contemporary world cinemas. Students will also demonstrate an understanding of how these values impact individual heroes and their interactions with others in their society.

COMM-ST 331 Mass Media In America Credits: 3
Social history of the development of mass media, radio, film, and television, from Marconi's first experiments to the present. Emphasis placed on relationship of American culture and American media. Term paper required.

COMM-ST 331WI Mass Media In America Credits: 3
Writing intensive. Social History of the development of mass media, radio, film and television, from Marconi's first experiments to the present. Emphasis placed on relationship of American culture and American media. Term paper required.

Prerequisites: RooWriter.

COMM-ST 339 Introduction to Film Theory Credits: 3
A survey of the history of theoretical and critical approaches to film theory/philosophy. Students will be introduced to major foundational and contemporary theoretical approaches to cinema that may include but are not limited to formalism, realism, auteurism, psychoanalysis, genre studies, structuralism, feminism, semiotics, cultural studies, post-structuralism, queer theory and digital studies.

COMM-ST 341 Rhetorical Theory And Criticism Credits: 3
An analysis of significant public discourse within the context of social protest and political rhetoric with attention to applying methods of communication criticism in evaluating the effectiveness of persuasive advocacy aimed at social change.

COMM-ST 341WI Rhetorical Theory And Criticism Credits: 3
Writing intensive. An analysis of significant public discourse within the context of social protest and political rhetoric with attention to applying methods of communication criticism in evaluating the effectiveness of persuasive advocacy aimed at social change.

Prerequisites: RooWriter.

COMM-ST 343 Group Dynamics Credits: 3
A study of strategies and communication relationships unique to non-dyadic situations, with an emphasis on the integral structure of leadership, roles, norms and task functions.
COMM-ST 344 Communication In Organizational Settings Credits: 3
An examination of the major elements of interpersonal, group, and oral communication competence essential to human interaction in organizational settings. The course focuses on developing communication competencies and increasing theoretical understanding of the communication process within the organizational context.

COMM-ST 344WI Communication In Organizational Settings Credits: 3
An examination of the major elements of interpersonal, group, and oral communication competence essential to human interaction in organizational settings. The course focuses on developing communication competencies and increasing theoretical understanding.
Prerequisites: COMM-ST 110 or COMM-ST 308, RooWriter.

COMM-ST 345 German Film Credits: 3
This course introduces students to the important contributions of German films to the development of movies as a unique literary art form. The class will cover important terms and concepts in film theory, the specifically German context of film, and important themes and periods in German film history. Taught in English with subtitled films.

COMM-ST 346 Art of the Short Film Credits: 3
Art of the Short Film examines the social, economic and aesthetic histories of narrative, documentary and experimental short form films from the birth of cinema to today.

COMM-ST 347 Topics in Film Genre Credits: 3
A topics course that examines the history and theory of film genres. Repeatable up to six hours when the topic changes.

COMM-ST 348 The Art of the Interview Credits: 3
This course will introduce students to the styles and techniques of conducting professional interviews with the goal of eliciting insightful, thoughtful answers fit for print or broadcast. Students will prepare QA interviews and articles for publication while gaining the confidence needed to work in professional newsrooms or office settings.

COMM-ST 351WI Fundamentals Of Writing For The Media Credits: 3
Analysis of individual differences and common characteristics of copy for eye and ear, with emphasis on the application of both verbal and visual imagery in the process of communicating the writer's ideas and intentions. Weekly written assignments and critical analysis of the student's work.
Prerequisites: COMM-ST 110, RooWriter.

COMM-ST 354 Introduction to Screenwriting Credits: 3
An introduction to the form and language of the motion picture screenplay. Students will learn to create a workable blueprint for a movie and undertake an in-depth examination of visual storytelling. This will include understanding the basics of dramatic structure, scene and sequence construction and the role of dialogue. Emphasis will be placed on students mastering the accepted movie industry format of the screenplay. They will also adapt a short story and revise it after giving and receiving feedback in small groups.
Prerequisites: COMM-ST 203 or ENGLISH 203, RooWriter.

COMM-ST 355WI The New Feature Writing Credits: 3
An intensive practicum in the art of writing feature stories with a special emphasis on shorter stories that will grab reader interest in an era of short-attention spans.
Prerequisites: COMM-ST 203 or ENGLISH 203, RooWriter.

COMM-ST 356 U News Practicum Credits: 3
This course is workshop-based for students producing UMKC's weekly newspaper, U News. It also focuses on contemporary issues in American journalism and engaging with the university community.
Prerequisites: COMM-ST 203

COMM-ST 361 Media Management Credits: 3
An analysis of the trends, patterns and methods of radio and television operations.

COMM-ST 363 Radio Production I Credits: 3
A study of the techniques of producing audio material for use in radio, in concerts, on film, on television and in the recording studio.

COMM-ST 373 Intermediate Media Production Credits: 3
An intermediate-level production course emphasizing hands-on skills in cinematography and lighting, sound, and editing.
Prerequisites: COMM-ST 230 and COMM-ST 250.

COMM-ST 376 History Of The Film Industry Credits: 3
A history of the development of the American film industry from 1900 to the end of the studio era. The course will stress such issues as studio production, censorship, the economics of production and the selling of mass culture through the film medium. Term paper required.

COMM-ST 377 Interpersonal Communication Credits: 3
An intensive analysis of the dimensions of intrapersonal and interpersonal communication designed to identify the philosophies and methods which underwrite effective human communication. Lecture and discussion.
COMM-ST 377WI Interpersonal Communication
Credits: 3
An intensive analysis of the dimensions of intrapersonal and interpersonal communication designed to identify the philosophies and methods which underwrite effective human communication. Lecture and discussion.

Prerequisites: RooWriter.

COMM-ST 378 Computer-Mediated Communication
Credits: 3
Examination of the nature of human communication on the Internet. Design function, content innovations of computer mediated communication discussed, with emphasis on technology as a means of interpersonal communication. Research, essays, and participation in online environment required.

Prerequisites: RooWriter.

COMM-ST 378WI Computer Mediated Communication
Credits: 3
Examination of the nature of human communication on the internet. Design function, content innovations of computer mediated communication discussed, with emphasis on technology as a means of interpersonal communication. Research, essays, and participation in online environment required.

Prerequisites: RooWriter.

COMM-ST 380 Contemporary Media Topics
Credits: 3

COMM-ST 381 Narrative Production
Credits: 3
This course covers the creative, technical, and practical aspects of short-form narrative film production.

Prerequisites: COMM-ST 250 and COMM-ST 354.

COMM-ST 383 Cross-Cultural Journalism & Mass Media
Credits: 3
Cross-Cultural Journalism Mass Media provides journalistic tools for traditional and new media coverage of diverse ethnic, gender, ability and ideological groups inside and outside the United States. The critical role of diverse voices in a democracy will be discussed. Students at UMKC and the Missouri School of Journalism participate in joint lectures transmitted by UMKC and MU instructors from their respective campuses.

COMM-ST 384 Documentary Film History
Credits: 3
Documentary Film History is an overview of the history and theory of documentary cinema. The course surveys the documentary tradition with special attention to the relationship between content and style and the issues central to documentary film making, including ethical and legal questions, the relationship between representation and power and the ways in which film speaks to notions of truth and truth telling.

COMM-ST 385 Documentary Production
Credits: 3
This course is designed to familiarize students with the basics of documentary production from an artistic, ethical, and practical results-oriented perspective.

Prerequisites: COMM-ST 250.

COMM-ST 386 Animation
Credits: 3
This course provides an introduction to animation production techniques and an overview of the history of American animation arts. We will address both stop-motion and computer animation using industry standard software.

Prerequisites: COMM-ST 250.

COMM-ST 387 Strategic Communication Research
Credits: 3
This course will examine different research methods and research stages in advertising and public relations, including quantitative and qualitative research methods. Students will learn how to plan, conduct, and evaluate strategic communication research. Students are also expected to develop a greater appreciation for the role that research plays in effective campaigns.

COMM-ST 388 Media Ethics
Credits: 3
This course is designed to sensitize the ethical considerations the underlie the conventions and practices of print, broadcast, and internet media. By placing traditional and new media in a wider intellectual context than is generally possible under the daily demands of producing news, information, and entertainment, it seeks to produce a larger sense of media as industry and as a career choice.

COMM-ST 390 Forensic Activities
Credits: 1-4
Participation in the intercollegiate forensic program. A practicum in debate, discussion, oratory and other forensic activities.

COMM-ST 391 The World(s) Of Alfred Hitchcock
Credits: 3
The course offers an historical study of the film art of Alfred Hitchcock. The course gives special attention to the director’s work in the silent cinema of the U.K., Hitchcock’s early major British sound films, his arrival in the United States, his major World War II propaganda films, the directors maturing into a major influence on world cinema in the 1940’s, and Hitchcock’s “masterworks” of the 1950’s-1960’s.

COMM-ST 392 Topics in World Cinema
Credits: 3
A variable topics course focused on the histories and theories of international cinemas. Repeatable up to 6 hours when the topic changes.

COMM-ST 393 Topics in Sound & Cinema
Credits: 3
A variable topics course that focuses on the histories and aesthetics of sound in cinema. Repeatable up to 6 hours when the topic changes.

COMM-ST 394 Topics in Gender and Cinema
Credits: 3
A course focused on the relationship between popular culture, film history and the construction of gender and sexuality. Repeatable up to 6 hours when the topic changes.
COMM-ST 400 Special Studies Credits: 1-3
(A-N) This is an upper-level course on a subject which is not a part of the regular department offering. The course results from one or more of the following: (1) the expressed desire of students (2) the broadened or refocused scholarship of a member of the communication studies faculty (3) the temporary presence of a scholar whose specialization is not reflected in the department’s regular offerings (4) the conclusion by the department that the course meets a community need (5) the effort of the Communication Studies faculty to provide an interdisciplinary approach to an era or topic.

COMM-ST 400G Special Studies In Communication Studies Credits: 1-3
COMM-ST 400M Special Studies In Communication Studies Credits: 1-6
COMM-ST 400N Special Studies Credits: 1-3
COMM-ST 400Q Special Studies In Communication Studies Credits: 1-3
COMM-ST 400W Special Studies in Communication Studies Credits: 1-3
COMM-ST 400Z Special Studies Credits: 1-3

COMM-ST 406CD CC: Film Adaptation Credits: 3
The class will explore the process of adapting both fiction and non-fiction literary works into motion pictures. Students will examine the original literary source, then the interim screenplay and finally the completed motion picture.

COMM-ST 411 Seminar in Film and Media Arts Credit: 1
This course covers special topics and professional practices within Film and Media Arts. Course is repeatable. Required of B.A. in Film and Media Arts majors for every semester enrolled. Enrollment restricted to declared majors, B.A. in Film and Media Arts.
Prerequisites: Declared major, B.A. in Film and Media Arts.

COMM-ST 426 History And Criticism Of American Public Address I Credits: 3
This course examines American Public Address from 1630 to 1900, with an emphasis on the connections between rhetoric and social change. Students analyze how texts function within specific historical contexts.

COMM-ST 428 History and Criticism of American Public Address II Credits: 3
This course examines American Public Address from 1900 to present, with an emphasis on the connections between rhetoric and social change. Students analyze how texts function within specific historical contexts.

COMM-ST 431 Colloquium In Interpersonal Dynamics Credits: 3
An examination of the practical application of communication principles and theories, with focus on one of the following: health, organizational, nonverbal, intrapersonal, conflict management, computer mediated, or intercultural communication.

COMM-ST 432 Press, Politics And Public Policy Credits: 3
An advanced course in the study of the press and political establishments in the formation of public policy.

COMM-ST 441 Applications of Interpersonal Communication Credits: 3
This course examines interpersonal communication theory as it pertains to a variety of interpersonal relationships. The course employs class discussions of theory and assignments that apply those theories to real life interactions.
Prerequisites: COMM-ST 377 or COMM-ST 377WI.

COMM-ST 444WI Intercultural Communication Credits: 3
A consideration of communication phenomena in multicultural settings. A study of the public forum with an emphasis on the interpersonal aspects of international, intercultural, and co-cultural communication.
Prerequisites: RooWriter.

COMM-ST 446 Principles Of Advertising Credits: 3
A survey of advertising as an industry and a career field, examining its history and development in America, and its application in mass and special media. Specific procedures are studies for linking the development of advertising strategies, messages and campaigns to the marketing process, and for evaluation and selection of appropriate media to carry the advertising message.

COMM-ST 447 Interactive and Social Media Advertising Credits: 3
This course examines advertising on the Internet as a form of interactive communication, with a special focus on social media and search engines. It addresses basic concepts, current issues, and the development of interactive advertising strategies and plans. The coverage includes interactivity, pricing models, online targeting strategies, search engine optimization and advertising, social media advertising, and online video advertising.

COMM-ST 448 Principles Of Public Relations Credits: 3
An overview, presenting the function, purposes, procedures and practices of public relations, its role in society, industry, government and politics, and its potential as a career field. This is a survey course with primary emphasis on theory, supplemented with applied techniques.

COMM-ST 453 Urban Journalism Practicum Credits: 4
This course engages student journalists to produce stories with an urban focus across radio, online, and television platforms. By practicing convergence journalism, students gain practical story-telling experience for professional news organizations.
Prerequisites: COMM-ST 203 and permission of instructor.
COMM-ST 454 Advanced Screenwriting Credits: 3
This course provides students with advanced theory in narrative screenwriting, training in industry standard script analysis (called "coverage") and story editing. Students will be required to draft, revise and workshop a short film screenplay or will focus on a feature screenplay, delivering a draft and revision of the first act and a detailed outline for the rest of the script. Students will workshop feature screenplays in small groups, emphasizing the art of constructive story editing.
Prerequisites: COMM-ST 354.

COMM-ST 456 Electronic Journalism Credits: 3
A practical approach to the practices and principles of broadcasting news media, including preparing copy for microphone and camera, editing wire copy, reporting public affairs and public relations, and an intensive scrutiny of the concepts of freedom and responsibility as they apply to the press and current legislation.

COMM-ST 457 Client-Based Media Production Credits: 3
This course teaches the process of creating media for a professional client. Students will take on specialized crew positions and work together to plan, write, direct, shoot, edit, and distribute a short video for a local non-profit client.
Prerequisites: COMM-ST 250.

COMM-ST 462 Public Broadcasting Credits: 3
A study of the development of public broadcasting, its position and responsibilities in the world of modern communications. Programming and operations concepts and philosophies of public broadcast facilities will be studied and analyzed.
Prerequisites: COMM-ST 220.

COMM-ST 466 Advanced Electronic Journalism Credits: 3
An advanced study of television and Internet news gathering, field production and performance for electronic media.
Prerequisites: COMM-ST 456.

COMM-ST 470 Directing Credits: 3
An advanced course in video techniques with emphasis on creating complex formats for broadcasting, recording and performance. Lecture, discussion, and laboratory.
Prerequisites: COMM-ST 250.

COMM-ST 471 Advanced Media Production Credits: 3
An advanced course in media production techniques focused on the creation of a significant individual media work and professional development.
Prerequisites: COMM-ST 250, COMM-ST 373, and COMM-ST 354.

COMM-ST 473 Directing Actors and Scenes Credits: 3
This intensive workshop class seeks to deepen the student director's understanding of the acting process and provide ways of clearly and creatively communicating with actors. The course will deepen students' understanding of blocking scenes and designing camera coverage. It will explore the role of the director as a guiding creative force in the making of a film through collaboration and provide techniques for scene analysis and preparation. Students will cast, rehearse and present a live performance for their final project and design appropriate camera coverage.
Prerequisites: COMM-ST 250.

COMM-ST 478 Media Law Credits: 3
A comprehensive examination of the law as it pertains to advertising, public relations, journalism, commercial and electronic media, broadcast regulatory agencies, corporate speech and corporate participation in elections. Students will study topics that include the First Amendment, defamation and privacy. Court opinions and legislation will be the course's primary focus, however students will also examine contemporary and historic theory of free expression.

COMM-ST 483 Research Seminar In Communication Studies Credits: 3
This is the departmental capstone course and is required for majors in their last semester of their senior year. The course summarizes and extends student's theoretical and applied understanding of the role of communication competence in the work place and beyond. The course also focuses on refining student's research competencies and their appreciation of the cultural role of modern communication methods.
Prerequisites: Senior standing.

COMM-ST 484 Communication Studies Activities Credits: 1-4
Internships opportunities for advanced students involved in community and campus activities. Student must receive approval of advising professor in semester prior to enrollment. No more than four hours with any one project.

COMM-ST 492 Advertising Campaigns Credits: 3
The course content focuses on branding, re-branding or development of an identity program, and combines advertising planning with creative execution. Students will learn how to develop advertising/marketing/creative campaign plans for a specific client(s), conceptualize, design and develop all creative aspects including but not limited to logo/identity, copy, advertising, website development, app design, etc., and complete a presentation of the plans/briefs and final creative developments of the plans/briefs and creative to the client(s).
Prerequisites: COMM-ST 446 or COMM-ST 447 or COMM-ST 387.
COMM-ST 498 Special Problems In Communication Studies Credits: 1-3
Research and/or projects for advanced upper class students. Student must receive approval of advising professor in semester prior to enrollment. No more than three hours with any one instructor.

COMM-ST 5554 Graduate Seminar: Screenwriting Credits: 3
Students will complete their feature screenplay, focusing on acts two and three and then ready the script for submission to contests and industry contacts. We will focus on in-depth scene work, polishing dialogue and deepening theme.
Prerequisites: COMM-ST 454 or ENGLISH 429B.

COMM-ST 5597 Directed Graduate Studies: Readings Credits: 1-6
Special Projects on the graduate level.

COMM-ST 5598 Directed Graduate Studies: Non-Thesis Research Credits: 1-6
Special projects on the graduate level.
Bachelor of Arts: Communication Studies - Film and Media Studies

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

- Assess films, film culture and film history using film theory.
- Specify relationships between film form and meaning using close textual analysis.
- Identify social, political and aesthetic elements of cinema
- Research and formulate theoretical questions and synthesize original scholarship in appropriate written form.
- * Construct short films in a variety of modes possibly such as narrative, documentary, animated and promotional. (*media production courses are encouraged but not required.)

Program Requirements

The Film and Media Studies emphasis provides an interdisciplinary study of film and media, including the history and theory of global cinema culture, critical media studies and extensive training in media production. Our courses emphasize critical thinking, creative exploration and skill development by combines the study of film history and theory with the art and practice of film-making. Students write, produce, direct and edit several narrative, documentary and experimental shorts while studying histories and theories of the moving image. Students work with video, animation, non-linear editing systems and audio production tools. Internships and extracurricular activities prepare students for creative success, professional careers and advanced graduate studies. The program is aligned with UMKC’s visual and performing arts mission.

The department has media classrooms and production spaces for student projects, that include a video production studio with multi-camera and "green-screen" capabilities, a sound recording facility with narration booth and radio console, and post production media labs outfitted with latest software, including Final Cut Pro, Avid, Pro Tools, Photoshop, After Effects, Flash, etc. These software packages provide the tools to not only edit sound and video, but to produce animation, motion graphics, and rich media content for the web. A student equipment checkout lab maintains an extensive inventory of production equipment ranging from traditional film cameras, such as Super 8 and 16mm; to the latest HD video cameras providing the capabilities for professional digital cinematography. Location lighting equipment includes tungsten, fluorescent & HMI instruments. Pro sound gear packages are also available to students including a wide variety of microphones, booms, mixers and digital recorders. Our facilities foster the ability to light, shoot and edit professionally, allowing the students to tell compelling stories that make an impact on audiences.

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II (ANCH 201 Recommended)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
</tbody>
</table>
**Discourse III: Civic and Community Engagement (Speech and Writing)**

Focus A (Satisfied in program requirements below)

Focus B (Satisfied in program requirements below)

Focus C (May be satisfied by Constitution course requirement below)

Focus Elective

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

**Constitution Course Requirement**

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions."

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
</tbody>
</table>
| HISTORY 101 | U.S. History to 1877 (Focus C) | 1
| HISTORY 102 | U.S. History Since 1877 (Focus C) | 1
| HISTORY 360R | Constitutional History of the United States |        |
| HONORS 230 | Honors American Government (Focus C) | 1
| POL-SCI 210 | American Government (Focus C) | 1

Total Credits

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

**College of Arts & Sciences Degree Requirements**

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ALEKS Math Placement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arts and Humanities Division of CAS</td>
<td></td>
<td>6</td>
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<td>Science and Math Division of CAS</td>
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<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign Language (3rd Semester Level)</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>MATH 110 or MATH 116 or MATH 120</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course) or Mathematics For Liberal Arts or Precalculus</td>
<td>3</td>
</tr>
<tr>
<td>Laboratory Science Experience</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits

1 ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.
This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

Major Requirements
Film and Media Studies Emphasis

In addition to the 6 credit hours of the department’s core courses (COMM-ST 110, COMM-ST 483 or COMM-ST 471), the Film and Media Studies emphasis requires COMM-ST 230, COMM-ST 339 and 21 hours of Film and Media Studies electives for a total of 33 credit hours. Students are required to take one writing intensive course in any department.

Students must maintain a 2.0 GPA in their major courses. Only major courses with a grade of C- or higher will be accepted for credit in the major, and counted toward the major GPA. With prior permission, three hours of elective credit from another department may be accepted as Communication Studies elective credit. Transfer students may transfer a maximum of 15 hours from another institution, and must complete a minimum of 18 credit hours within the department.

Students must successfully complete the major requirements below with at least 18 credit hours taken in the department at UMKC with 12 of those hours at the 300-level or above.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Department’s Core Courses</td>
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</tr>
<tr>
<td>COMM-ST 110</td>
<td>Fundamentals Of Effective Speaking And Listening</td>
<td>3</td>
</tr>
<tr>
<td>COMM-ST 483</td>
<td>Research Seminar In Communication Studies</td>
<td>3</td>
</tr>
<tr>
<td>or COMM-ST 471</td>
<td>Advanced Media Production</td>
<td></td>
</tr>
<tr>
<td>Required Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One Writing Intensive Course</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>COMM-ST 230</td>
<td>Introduction to Film Studies (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td>COMM-ST 339</td>
<td>Introduction to Film Theory</td>
<td>3</td>
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<tr>
<td>Film and Media Studies Electives</td>
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<tr>
<td>Select seven of the following:</td>
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<td></td>
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<tr>
<td>ANCH 303</td>
<td>Film Adaptation</td>
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<tr>
<td>COMM-ST 250</td>
<td>Introduction to Film and Video Production</td>
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<tr>
<td>COMM-ST 320</td>
<td>Mass Media, Culture And Society</td>
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<tr>
<td>COMM-ST 323</td>
<td>Concepts of the Hero in Ancient Literature and World Cinema</td>
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<tr>
<td>COMM-ST 341WI</td>
<td>Rhetorical Theory And Criticism</td>
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<tr>
<td>COMM-ST 345/GERMAN 341</td>
<td>German Film (Focus A)</td>
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<tr>
<td>COMM-ST 346</td>
<td>Art of the Short Film</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 347</td>
<td>Topics in Film Genre</td>
<td></td>
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<tr>
<td>COMM-ST 351WI</td>
<td>Fundamentals Of Writing For The Media</td>
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</tr>
<tr>
<td>COMM-ST 354/ENGLISH 339</td>
<td>Introduction to Screenwriting</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 363</td>
<td>Radio Production I</td>
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<tr>
<td>COMM-ST 373</td>
<td>Intermediate Media Production</td>
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<tr>
<td>COMM-ST 376</td>
<td>History Of The Film Industry</td>
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</tr>
<tr>
<td>COMM-ST 381</td>
<td>Narrative Production</td>
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</tr>
<tr>
<td>COMM-ST 384</td>
<td>Documentary Film History</td>
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<td>COMM-ST 385</td>
<td>Documentary Production</td>
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<td>COMM-ST 386</td>
<td>Animation</td>
<td></td>
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<td>COMM-ST 391</td>
<td>The World(s) Of Alfred Hitchcock</td>
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</tr>
<tr>
<td>COMM-ST 392</td>
<td>Topics in World Cinema</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 393</td>
<td>Topics in Sound &amp; Cinema</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 394</td>
<td>Topics in Gender and Cinema</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 400</td>
<td>Special Studies (variable topics - topics must be within the Film/Media Studies Emphasis)</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 454</td>
<td>Advanced Screenwriting</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 457</td>
<td>Client-Based Media Production</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 471</td>
<td>Advanced Media Production</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 473</td>
<td>Directing Actors and Scenes</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 478</td>
<td>Media Law</td>
<td></td>
</tr>
</tbody>
</table>
Elective courses may be offered on a rotation basis. Please consult advisor for current availability.

**General Electives**

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>29</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0

Total Credit Hours: 120

**Tools for Planning and Fulfilling Academic Requirements**

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student's officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Arts: Communication Studies - Interpersonal and Public Communication Emphasis

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

- Demonstrate effective oral, written, and visual communication
- Conduct basic research through the identification, evaluation, application, and citation of appropriate scholarly sources.
- Identify key interpersonal communication theories and concepts as they pertain to relationships and interactions with others from diverse backgrounds and across different settings.
- Identify key rhetorical theories and concepts and how they relate to the design and evaluation of effective messages.
- Explain how cultural diversity presents challenges and opportunities in interpersonal and public communication.

Program Requirements
The Interpersonal and Public Communication emphasis offers study in the areas of public address and rhetoric, interpersonal and intercultural communication, organizational communication and areas associated with human communication behavior including advertising, public relations and strategic communication.

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B (Satisfied in program requirements below)</td>
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<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied by Constitution course requirement below)</td>
<td></td>
<td></td>
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<tr>
<td>Focus Elective 1</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

‘Total credits’ in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 24
Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

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<th>Credits</th>
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<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
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</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
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</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelor’s degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

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<thead>
<tr>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Arts and Humanities Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Science and Math Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Foreign Language (3rd Semester Level)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course)</td>
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<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
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<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
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<tr>
<td>Laboratory Science Experience</td>
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<tr>
<td>Total Credits</td>
<td></td>
<td>31</td>
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</tbody>
</table>

1 ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

2 This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

Major Requirements

Students must maintain a 2.0 GPA in their major courses. Only major courses with a grade of C- or higher will be accepted for credit in the major, and counted toward the major GPA. With prior permission, three hours of elective credit from another department may be accepted as Communication Studies elective credit.
Students must successfully complete the major requirements below with at least 18 credit hours taken in the department at UMKC with 12 of those hours at the 300-level or above.

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</tr>
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<tbody>
<tr>
<td><strong>Department's Core Courses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMM-ST 110</td>
<td>Fundamentals Of Effective Speaking And Listening</td>
<td>3</td>
</tr>
<tr>
<td>COMM-ST 483</td>
<td>Research Seminar In Communication Studies</td>
<td>3</td>
</tr>
<tr>
<td><strong>Required Courses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMM-ST 308</td>
<td>Introduction To The Study Of Human Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM-ST 341WI</td>
<td>Rhetorical Theory And Criticism</td>
<td>3</td>
</tr>
<tr>
<td>COMM-ST 377</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>or COMM-ST 377WI</td>
<td>Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td><strong>Interpersonal Communication</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select one of the following not already completed in another area:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 322</td>
<td>Oral Performance In Speech Communication</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 343</td>
<td>Group Dynamics</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 344</td>
<td>Communication In Organizational Settings</td>
<td></td>
</tr>
<tr>
<td>or COMM-ST 344WI</td>
<td>Communication In Organizational Settings</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 378</td>
<td>Computer-Mediated Communication</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 387</td>
<td>Strategic Communication Research</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 431</td>
<td>Colloquium In Interpersonal Dynamics</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 441</td>
<td>Applications of Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 444WI</td>
<td>Intercultural Communication</td>
<td></td>
</tr>
<tr>
<td><strong>Public Communication</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select one of the following not already completed in another area:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 213</td>
<td>Argumentation And Critical Thought</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 312</td>
<td>Advanced Public Speaking</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 317</td>
<td>Persuasion</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 348</td>
<td>The Art of the Interview</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 426</td>
<td>History And Criticism Of American Public Address I</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 428</td>
<td>History and Criticism of American Public Address II</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 446</td>
<td>Principles Of Advertising</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 447</td>
<td>Interactive and Social Media Advertising</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 448</td>
<td>Principles Of Public Relations</td>
<td></td>
</tr>
<tr>
<td><strong>Interpersonal and Public Electives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select four of the following not already completed in another area:</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 213</td>
<td>Argumentation And Critical Thought</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 312</td>
<td>Advanced Public Speaking</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 317</td>
<td>Persuasion</td>
<td></td>
</tr>
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<td>COMM-ST 322</td>
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<td>COMM-ST 343</td>
<td>Group Dynamics</td>
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<tr>
<td>COMM-ST 344</td>
<td>Communication In Organizational Settings</td>
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</tr>
<tr>
<td>or COMM-ST 344WI</td>
<td>Communication In Organizational Settings</td>
<td></td>
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<tr>
<td>COMM-ST 348</td>
<td>The Art of the Interview</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 378</td>
<td>Computer-Mediated Communication</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 387</td>
<td>Strategic Communication Research</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 400</td>
<td>Special Studies (topic must be in the IPC emphasis area)</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 426</td>
<td>History And Criticism Of American Public Address I</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 428</td>
<td>History and Criticism of American Public Address II</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 431</td>
<td>Colloquium In Interpersonal Dynamics</td>
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</tr>
<tr>
<td>COMM-ST 441</td>
<td>Applications of Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 444WI</td>
<td>Intercultural Communication</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 446</td>
<td>Principles Of Advertising</td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>COMM-ST 447</td>
<td>Interactive and Social Media Advertising</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 448</td>
<td>Principles Of Public Relations</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 484</td>
<td>Communication Studies Activities</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 492</td>
<td>Advertising Campaigns</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 498</td>
<td>Special Problems In Communication Studies (restricted to 3 cr. hrs with any one instructor)</td>
<td></td>
</tr>
</tbody>
</table>

**General Electives**

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

Minimum GPA: 2.0

Total Credit Hours: 120

**Tools for Planning and Fulfilling Academic Requirements**

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Arts: Communication Studies - Journalism and Mass Communications Emphasis

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

- Produce work applying best practices in short- and long-form news, feature and investigative reporting for print, broadcast and digital journalism
- Research and develop methods in data collection.
- Produce writing that meets or exceeds professional standards.
- Demonstrate reporting skill that meets or exceeds professional standards.
- Adapt the dissemination of information appropriate to cross-cultural audiences.
- Identify and express ethical news writing and reporting in the best traditions of American journalism and mass communication.

Program Requirements
The Journalism and Mass Communication emphasis offers concentrated study in select areas including print and electronic journalism, radio, television, journalism, advertising and public relations.

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>Focus C</td>
<td>(May be satisfied by Constitution course requirement below)</td>
<td></td>
</tr>
</tbody>
</table>

Focus Elective

Total credits in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits
See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

**Constitution Course Requirement**

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) ¹</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 3

¹ Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

**College of Arts & Sciences Degree Requirements**

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arts and Humanities</td>
<td>Division of CAS ¹</td>
<td>6</td>
</tr>
<tr>
<td>Science and Math</td>
<td>Division of CAS</td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral</td>
<td>Sciences Division of CAS</td>
<td>6</td>
</tr>
<tr>
<td>Writing Intensive Course</td>
<td>(300-level or above)</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language (3rd</td>
<td>Semester Level)</td>
<td>9</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course)²</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>Laboratory Science</td>
<td>Experience</td>
<td>1</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>34</td>
</tr>
</tbody>
</table>

¹ ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

² This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

**Major Requirements**

**Journalism and Mass Communication Emphasis**

Students must maintain a 2.0 GPA in their major courses. Only major courses with a grade of C- or higher will be accepted for credit in the major, and counted toward the major GPA. With prior permission, three hours of elective credit from another department may be accepted as Communication Studies elective credit.
Students must successfully complete the major requirements below with at least 18 credit hours taken in the department at UMKC with 12 of those hours at the 300-level or above.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM-ST 110</td>
<td>Fundamentals Of Effective Speaking And Listening</td>
<td>3</td>
</tr>
<tr>
<td>COMM-ST 483</td>
<td>Research Seminar In Communication Studies</td>
<td>3</td>
</tr>
</tbody>
</table>

### Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM-ST 203</td>
<td>Introduction to Journalism</td>
<td>3</td>
</tr>
<tr>
<td>COMM-ST 220</td>
<td>Introduction: Modern Communications Media</td>
<td>3</td>
</tr>
<tr>
<td>COMM-ST 484</td>
<td>Communication Studies Activities</td>
<td>3</td>
</tr>
</tbody>
</table>

### Journalism and Mass Communication Electives

Select six of the following courses including at least one WI course: 18

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM-ST 260P</td>
<td>Introduction To Web Communications</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 265</td>
<td>Visual Communication</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 270</td>
<td>Introduction to Digital and Mobile Journalism</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 308</td>
<td>Introduction To The Study Of Human Communication</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 311</td>
<td>Radio &amp; Television Performance</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 314WI</td>
<td>Reporting</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 320</td>
<td>Mass Media, Culture And Society</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 331</td>
<td>Mass Media In America</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 341WI</td>
<td>Rhetorical Theory And Criticism</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 348</td>
<td>The Art of the Interview</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 351WI</td>
<td>Fundamentals Of Writing For The Media</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 355WI</td>
<td>The New Feature Writing</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 356</td>
<td>U News Practicum</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 361</td>
<td>Media Management</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 363</td>
<td>Radio Production I</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 383</td>
<td>Cross-Cultural Journalism &amp; Mass Media</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 384</td>
<td>Documentary Film History</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 387</td>
<td>Strategic Communication Research</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 388</td>
<td>Media Ethics</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 400</td>
<td>Special Studies (topic must be within the Journalism &amp; Mass Communication Emphasis)</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 432</td>
<td>Press, Politics And Public Policy</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 446</td>
<td>Principles Of Advertising</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 447</td>
<td>Interactive and Social Media Advertising</td>
<td></td>
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<tr>
<td>COMM-ST 448</td>
<td>Principles Of Public Relations</td>
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<tr>
<td>COMM-ST 453</td>
<td>Urban Journalism Practicum</td>
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<tr>
<td>COMM-ST 456</td>
<td>Electronic Journalism</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 462</td>
<td>Public Broadcasting</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 466</td>
<td>Advanced Electronic Journalism</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 478</td>
<td>Media Law</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 484</td>
<td>Communication Studies Activities</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 492</td>
<td>Advertising Campaigns</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 498</td>
<td>Special Problems In Communication Studies (restricted to 3 cr. hr. with any one instructor)</td>
<td></td>
</tr>
</tbody>
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**Total Credits** 33

### General Electives

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.
Bachelor of Arts: Communication Studies - Journalism and Mass Communications Emphasis

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>26</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0

Total Credit Hours: 120

Tools for Planning and Fulfilling Academic Requirements

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Courses

COMM-ST 110 Fundamentals Of Effective Speaking And Listening Credits: 3
An introduction to the dimensions of effective platform speaking with special emphasis on developing critical listening skills. Lecture, performance, and discussion.

COMM-ST 110 - MOTR COMM 110: Fundamentals of Public Speaking

COMM-ST 140 Principles Of Communication Credits: 3
An interdisciplinary introduction to the study of contemporary communication studies including a consideration of intrapersonal, interpersonal and public communication.

COMM-ST 140 - MOTR COMM 100: Introduction to Communications

COMM-ST 203 Introduction to Journalism Credits: 3
Introduction to the styles and techniques of reporting and writing basic news through assignments in straight news, features and in-depth stories. Exposure to the history and principles of American journalism. Practical application in writing news and news feature articles.

COMM-ST 212 Argumentation And Debate Credits: 3
A study of the nature of logical discourse generated through the preparation and presentation of oral argument within the framework of the debate format. Lecture, performance and discussion.

COMM-ST 212 - MOTR COMM 220: Argumentation Debate

COMM-ST 213 Argumentation And Critical Thought Credits: 3
An introduction to the theory and application of argument construction. The course is designed to examine the fundamental strategies of critical thinking and to help understand the relationships among critical thought and argumentation development and refutation. This course is designed for application across many fields and is not specific to debate or oral argument.

COMM-ST 220 Introduction: Modern Communications Media Credits: 3
A comprehensive survey of the content, structure and control of the communications media in American society–newspaper, motion pictures, radio and television; providing an informational frame of reference that will enable discerning students to formulate and apply useful critical concepts in evaluating America's media environment.

COMM-ST 230 Introduction to Film Studies Credits: 3
The course is an introduction to the study of film as an art form and industrial practice. Students will study the basics of film analysis, cinematic formal elements, genre, narrative structure and the cultural functions of cinema.

Prerequisites: DISC 100 or ENGLISH 110.
COMM-ST 250 Introduction to Film and Video Production Credits: 3
This course teaches the fundamentals of media making using digital video. Students will learn techniques in pre-production planning, camera, sound, and editing by creating a series of short videos. Students will also learn to think analytically about film, and to apply insights about what gives an image impact and meaning to their own work. It is the foundation and prerequisite for all film and video production courses in the department.

COMM-ST 260P Introduction To Web Communications Credits: 4
This four credit hour web-based multimedia course will examine the process of critically evaluating information delivered on the Internet. It is designed as an introduction for adults and students who use Internet information for work and/or school. The process of critically evaluating Internet information will be described in four modules: traditional evaluation techniques; searching and researching strategies; Internet evaluation techniques and Internet evaluation resources.

COMM-ST 265 Visual Communication Credits: 3
This course introduces the creative capture and design of photographic images as used in both print and new media for advertising, journalism, and public relations. Basic artistic and production methods are examined, including real-world professional practices and the creative control of process variables.

COMM-ST 270 Introduction to Digital and Mobile Journalism Credits: 3
An introduction to the practices and principles of creating video, combined with audio, graphics, and data information, by newsgathering in the field, for both current and emerging mobile, non-broadcast, digital and social media platforms.

COMM-ST 300CY Ancient World in Cinema Credits: 3
This course will explore the tradition of depicting the ancient Mediterranean world in film from the early silent era to the present. Topics to be covered include the ways that filmmakers respond to literary and historical sources from the ancient world, interact with the artistic tradition of films about the ancient world, the relation of these films to other works by the same creative personnel (directors, actors, writers, producers, etc.), and the political and cultural contexts in which the films were released.

COMM-ST 308 Introduction To The Study Of Human Communication Credits: 3
This course serves to introduce students to the basic theories, perspectives and methodologies used (historically and currently) in the study of speech, interpersonal and mass communication.

COMM-ST 311 Radio & Television Performance Credits: 3
A study of the specialized radio and television performing and operating situations and techniques simulated and evaluated in studio sessions. Lecture, discussion and performance.

COMM-ST 312 Advanced Public Speaking Credits: 3
Advanced study of rhetorical theory and its application to the presentation and criticism of public discourse.

COMM-ST 312P Advanced Public Speaking Credits: 3
Advanced study of rhetorical theory and its application to the presentation and criticism of public discourse.

COMM-ST 314 Reporting Credits: 3
Reporting is an advanced news gathering and reporting course designed to sharpen the writing skills and critical thinking of student journalists.

COMM-ST 314WI Reporting Credits: 3
A seminar of practical application in advanced reporting. Assignments to cover news events and to pursue in-depth news reports on the campus and off.

COMM-ST 317 Persuasion Credits: 3
A study of the rhetorical, psychological and ethical principles of influencing and controlling individuals and groups, and of the methods of adapting to various attitudes and audiences through the preparation, presentation and evaluation of persuasive speeches. Lecture, discussion and performance.

COMM-ST 320 Mass Media, Culture And Society Credits: 3
A critical exploration of the role of mass media (and its reception) in the social construction of reality. The course employs theoretical, analytical and empirical approaches derived from multidisciplinary sources, particularly "critical theory" semiology, post-structuralism, psychoanalysis and ethnography. Term paper required.
COMM-ST 322 Oral Performance In Speech Communication Credits: 3
This course is designed to develop and strengthen oral communication for students pursuing careers in pre-law, media, human resources, and education as well as increase the skills of potential professional speakers. The student will learn to develop emotional, vocal, physical, and non-verbal skills through an investigation of poetry, prose, and non-fiction literature. Through the process of reading, studying, investigating, rehearsing, and performing literary and nonliterary works, the students will learn to pay particular attention to the voice embodied in a given text and the cultural and social context within which that voice speaks.
**Prerequisites:** COMM-ST 110.

COMM-ST 323 Concepts of the Hero in Ancient Literature and World Cinema Credits: 3
This course explores how concepts of heroism are related to the principles of values and civic duty in a wide range of ancient world cultures and contemporary world cinemas. Students will also demonstrate an understanding of how these values impact individual heroes and their interactions with others in their society.

COMM-ST 331 Mass Media In America Credits: 3
Social history of the development of mass media, radio, film, and television, from Marconi’s first experiments to the present. Emphasis placed on relationship of American culture and American media. Term paper required.

COMM-ST 331WI Mass Media In America Credits: 3
Writing intensive. Social History of the development of mass media, radio, film and television, from Marconi’s first experiments to the present. Emphasis placed on relationship of American culture and American media. Term paper required.
**Prerequisites:** RooWriter.

COMM-ST 339 Introduction to Film Theory Credits: 3
A survey of the history of theoretical and critical approaches to film theory/philosophy. Students will be introduced to major foundational and contemporary theoretical approaches to cinema that may include but are not limited to formalism, realism, auteurism, psychoanalysis, genre studies, structuralism, feminism, semiotics, cultural studies, post-structuralism, queer theory and digital studies.

COMM-ST 341 Rhetorical Theory And Criticism Credits: 3
An analysis of significant public discourse within the context of social protest and political rhetoric with attention to applying methods of communication criticism in evaluating the effectiveness of persuasive advocacy aimed at social change.

COMM-ST 341WI Rhetorical Theory And Criticism Credits: 3
Writing intensive. An analysis of significant public discourse within the context of social protest and political rhetoric with attention to applying methods of communication criticism in evaluating the effectiveness of persuasive advocacy aimed at social change.
**Prerequisites:** RooWriter.

COMM-ST 343 Group Dynamics Credits: 3
A study of strategies and communication relationships unique to non-dyadic situations, with an emphasis on the integral structure of leadership, roles, norms and task functions.

COMM-ST 344 Communication In Organizational Settings Credits: 3
An examination of the major elements of interpersonal, group, and oral communication competence essential to human interaction in organizational settings. The course focuses on developing communication competencies and increasing theoretical understanding of the communication process within the organizational context.

COMM-ST 344WI Communication In Organizational Settings Credits: 3
An examination of the major elements of interpersonal, group, and oral communication competence essential to human interaction in organizational settings. The course focuses on developing communication competencies and increasing theoretical understanding.
**Prerequisites:** COMM-ST 110 or COMM-ST 308, RooWriter.

COMM-ST 345 German Film Credits: 3
This course introduces students to the important contributions of German films to the development of movies as a unique literary art form. The class will cover important terms and concepts in film theory, the specifically German context of film, and important themes and periods in German film history. Taught in English with subtitled films.

COMM-ST 346 Art of the Short Film Credits: 3
Art of the Short Film examines the social, economic and aesthetic histories of narrative, documentary and experimental short form films from the birth of cinema to today.

COMM-ST 347 Topics in Film Genre Credits: 3
A topics course that examines the history and theory of film genres. Repeatable up to six hours when the topic changes.

COMM-ST 348 The Art of the Interview Credits: 3
This course will introduce students to the styles and techniques of conducting professional interviews with the goal of eliciting insightful, thoughtful answers fit for print or broadcast. Students will prepare QA interviews and articles for publication while gaining the confidence needed to work in professional newsrooms or office settings.
COMM-ST 351WI Fundamentals Of Writing For The Media Credits: 3
Analysis of individual differences and common characteristics of copy for eye and ear, with emphasis on the application of both verbal and visual imagery in the process of communicating the writer’s ideas and intentions. Weekly written assignments and critical analysis of the student’s work.
Prerequisites: COMM-ST 110, RooWriter.

COMM-ST 354 Introduction to Screenwriting Credits: 3
An introduction to the form and language of the motion picture screenplay. Students will learn to create a workable blueprint for a movie and undertake an in-depth examination of visual storytelling. This will include understanding the basics of dramatic structure, scene and sequence construction and the role of dialogue. Emphasis will be placed on students mastering the accepted movie industry format of the screenplay. They will also adapt a short story and revise it after giving and receiving feedback in small groups.
Prerequisites: COMM-ST 203 or ENGLISH 203, RooWriter.

COMM-ST 355 WI The New Feature Writing Credits: 3
An intensive practicum in the art of writing feature stories with a special emphasis on shorter stories that will grab reader interest in an era of short-attention spans.
Prerequisites: COMM-ST 203 or ENGLISH 203, RooWriter.

COMM-ST 356 U News Practicum Credits: 3
This course is workshop-based for students producing UMKC’s weekly newspaper, U News. It also focuses on contemporary issues in American journalism and engaging with the university community.
Prerequisites: COMM-ST 203

COMM-ST 361 Media Management Credits: 3
An analysis of the trends, patterns and methods of radio and television operations.

COMM-ST 363 Radio Production I Credits: 3
A study of the techniques of producing audio material for use in radio, in concerts, on film, on television and in the recording studio.

COMM-ST 373 Intermediate Media Production Credits: 3
An intermediate-level production course emphasizing hands-on skills in cinematography and lighting, sound, and editing.
Prerequisites: COMM-ST 230 and COMM-ST 250.

COMM-ST 376 History Of The Film Industry Credits: 3
A history of the development of the American film industry from 1900 to the end of the studio era. The course will stress such issues as studio production, censorship, the economics of production and the selling of mass culture through the film medium. Term paper required.

COMM-ST 377 Interpersonal Communication Credits: 3
An intensive analysis of the dimensions of intrapersonal and interpersonal communication designed to identify the philosophies and methods which underwrite effective human communication. Lecture and discussion.
Prerequisites: RooWriter.

COMM-ST 378 Computer-Mediated Communication Credits: 3
Examination of the nature of human communication on the Internet. Design function, content innovations of computer mediated communication discussed, with emphasis on technology as a means of interpersonal communication. Research, essays, and participation in online environment required.
Prerequisites: RooWriter.

COMM-ST 380 Contemporary Media Topics Credits: 3

COMM-ST 381 Narrative Production Credits: 3
This course covers the creative, technical, and practical aspects of short-form narrative film production.
Prerequisites: COMM-ST 250 and COMM-ST 354.

COMM-ST 383 Cross-Cultural Journalism & Mass Media Credits: 3
Cross-Cultural Journalism Mass Media provides journalistic tools for traditional and new media coverage of diverse ethnic, gender, ability and ideological groups inside and outside the United States. The critical role of diverse voices in a democracy will be discussed. Students at UMKC and the Missouri School of Journalism participate in joint lectures transmitted by UMKC and MU instructors from their respective campuses.
COMM-ST 384 Documentary Film History Credits: 3
Documentary Film History is an overview of the history and theory of documentary cinema. The course surveys the documentary tradition with special attention to the relationship between content and style and the issues central to documentary film making, including ethical and legal questions, the relationship between representation and power and the ways in which film speaks to notions of truth and truth telling.

COMM-ST 385 Documentary Production Credits: 3
This course is designed to familiarize students with the basics of documentary production from an artistic, ethical, and practical results-oriented perspective.
Prerequisites: COMM-ST 250.

COMM-ST 386 Animation Credits: 3
This course provides an introduction to animation production techniques and an overview of the history of American animation arts. We will address both stop-motion and computer animation using industry standard software.
Prerequisites: COMM-ST 250.

COMM-ST 387 Strategic Communication Research Credits: 3
This course will examine different research methods and research stages in advertising and public relations, including quantitative and qualitative research methods. Students will learn how to plan, conduct, and evaluate strategic communication research. Students are also expected to develop a greater appreciation for the role that research plays in effective campaigns.

COMM-ST 388 Media Ethics Credits: 3
This course is designed to sensitize the ethical considerations the underlie the conventions and practices of print, broadcast, and internet media. By placing traditional and new media in a wider intellectual context than is generally possible under the daily demands of producing news, information, and entertainment, it seeks to produce a larger sense of media as industry and as a career choice.

COMM-ST 390 Forensic Activities Credits: 1-4
Participation in the intercollegiate forensic program. A practicum in debate, discussion, oratory and other forensic activities.

COMM-ST 391 The World(s) Of Alfred Hitchcock Credits: 3
The course offers an historical study of the film art of Alfred Hitchcock. The course gives special attention to the director's work in the silent cinema of the U.K., Hitchcock's early major British sound films, his arrival in the United States, his major World War II propaganda films, the directors maturing into a major influence on world cinema in the 1940's, and Hitchcock's "masterworks" of the 1950's-1960's.

COMM-ST 392 Topics in World Cinema Credits: 3
A variable topics course focused on the histories and theories of international cinemas. Repeatable up to 6 hours when the topic changes.

COMM-ST 393 Topics in Sound & Cinema Credits: 3
A variable topics course that focuses on the histories and aesthetics of sound in cinema. Repeatable up to 6 hours when the topic changes.

COMM-ST 394 Topics in Gender and Cinema Credits: 3
A course focused on the relationship between popular culture, film history and the construction of gender and sexuality. Repeatable up to 6 hours when the topic changes.

COMM-ST 400 Special Studies Credits: 1-3
(A-N) This is an upper-level course on a subject which is not a part of the regular department offering. The course results from one or more of the following: (1) the expressed desire of students (2) the broadened or refocused scholarship of a member of the communication studies faculty (3) the temporary presence of a scholar whose specialization is not reflected in the department's regular offerings (4) the conclusion by the department that the course meets a community need (5) the effort of the Communication Studies faculty to provide an interdisciplinary approach to an era or topic.

COMM-ST 400G Special Studies In Communication Studies Credits: 1-3
COMM-ST 400M Special Studies In Communication Studies Credits: 1-6
COMM-ST 400N Special Studies Credits: 1-3
COMM-ST 400Q Special Studies In Communication Studies Credits: 1-3
COMM-ST 400W Special Studies in Communication Studies Credits: 1-3
COMM-ST 400Z Special Studies Credits: 1-3
COMM-ST 406CD CC: Film Adaptation Credits: 3
The class will explore the process of adapting both fiction and non-fiction literary works into motion pictures. Students will examine the original literary source, then the interim screenplay and finally the completed motion picture.

COMM-ST 411 Seminar in Film and Media Arts Credit: 1
This course covers special topics and professional practices within Film and Media Arts. Course is repeatable. Required of B.A. in Film and Media Arts majors for every semester enrolled. Enrollment restricted to declared majors, B.A. in Film and Media Arts.
Prerequisites: Declared major, B.A. in Film and Media Arts.
COMM-ST 426 History And Criticism Of American Public Address I Credits: 3
This course examines American Public Address from 1630 to 1900, with an emphasis on the connections between rhetoric and social change. Students analyze how texts function within specific historical contexts.

COMM-ST 428 History and Criticism of American Public Address II Credits: 3
This course examines American Public Address from 1900 to present, with an emphasis on the connections between rhetoric and social change. Students analyze how texts function within specific historical contexts.

COMM-ST 431 Colloquium In Interpersonal Dynamics Credits: 3
An examination of the practical application of communication principles and theories, with focus on one of the following: health, organizational, nonverbal, intrapersonal, conflict management, computer mediated, or intercultural communication.

COMM-ST 432 Press, Politics And Public Policy Credits: 3
An advanced course in the study of the press and political establishments in the formation of public policy.

COMM-ST 441 Applications of Interpersonal Communication Credits: 3
This course examines interpersonal communication theory as it pertains to a variety of interpersonal relationships. The course employs class discussions of theory and assignments that apply those theories to real life interactions.

Prerequisites: COMM-ST 377 or COMM-ST 377WI.

COMM-ST 444WI Intercultural Communication Credits: 3
A consideration of communication phenomena in multicultural settings. A study of the public forum with an emphasis on the interpersonal aspects of international, intercultural, and co-cultural communication.

Prerequisites: RooWriter.

COMM-ST 446 Principles Of Advertising Credits: 3
A survey of advertising as an industry and a career field, examining its history and development in America, and its application in mass and special media. Specific procedures are studies for linking the development of advertising strategies, messages and campaigns to the marketing process, and for evaluation and selection of appropriate media to carry the advertising message.

COMM-ST 447 Interactive and Social Media Advertising Credits: 3
This course examines advertising on the Internet as a form of interactive communication, with a special focus on social media and search engines. It addresses basic concepts, current issues, and the development of interactive advertising strategies and plans. The coverage includes interactivity, pricing models, online targeting strategies, search engine optimization and advertising, social media advertising, and online video advertising.

COMM-ST 448 Principles Of Public Relations Credits: 3
An overview, presenting the function, purposes, procedures and practices of public relations, its role in society, industry, government and politics, and its potential as a career field. This is a survey course with primary emphasis on theory, supplemented with applied techniques.

COMM-ST 453 Urban Journalism Practicum Credits: 4
This course engages student journalists to produce stories with an urban focus across radio, online, and television platforms. By practicing convergence journalism, students gain practical story-telling experience for professional news organizations.

Prerequisites: COMM-ST 203 and permission of instructor.

COMM-ST 454 Advanced Screenwriting Credits: 3
This course provides students with advanced theory in narrative screenwriting, training in industry standard script analysis (called "coverage") and story editing. Students will be required to draft, revise and workshop a short film screenplay or will focus on a feature screenplay, delivering a draft and revision of the first act and a detailed outline for the rest of the script. Students will workshop feature screenplays in small groups, emphasizing the art of constructive story editing.

Prerequisites: COMM-ST 354.

COMM-ST 456 Electronic Journalism Credits: 3
A practical approach to the practices and principles of broadcasting news media, including preparing copy for microphone and camera, editing wire copy, reporting public affairs and public relations, and an intensive scrutiny of the concepts of freedom and responsibility as they apply to the press and current legislation.

COMM-ST 457 Client-Based Media Production Credits: 3
This course teaches the process of creating media for a professional client. Students will take on specialized crew positions and work together to plan, write, direct, shoot, edit, and distribute a short video for a local non-profit client.

Prerequisites: COMM-ST 250.

COMM-ST 462 Public Broadcasting Credits: 3
A study of the development of public broadcasting, its position and responsibilities in the world of modern communications. Programming and operations concepts and philosophies of public broadcast facilities will be studied and analyzed.

Prerequisites: COMM-ST 220.
COMM-ST 466 Advanced Electronic Journalism Credits: 3
An advanced study of television and Internet news gathering, field production and performance for electronic media.
Prerequisites: COMM-ST 456.

COMM-ST 470 Directing Credits: 3
An advanced course in video techniques with emphasis on creating complex formats for broadcasting, recording and performance. Lecture, discussion, and laboratory.
Prerequisites: COMM-ST 250.

COMM-ST 471 Advanced Media Production Credits: 3
An advanced course in media production techniques focused on the creation of a significant individual media work and professional development.
Prerequisites: COMM-ST 250, COMM-ST 373, and COMM-ST 354.

COMM-ST 473 Directing Actors and Scenes Credits: 3
This intensive workshop class seeks to deepen the student director’s understanding of the acting process and provide ways of clearly and creatively communicating with actors. The course will deepen students’ understanding of blocking scenes and designing camera coverage. It will explore the role of the director as a guiding creative force in the making of a film through collaboration and provide techniques for scene analysis and preparation. Students will cast, rehearse and present a live performance for their final project and design appropriate camera coverage.
Prerequisites: COMM-ST 250.

COMM-ST 478 Media Law Credits: 3
A comprehensive examination of the law as it pertains to advertising, public relations, journalism, commercial and electronic media, broadcast regulatory agencies, corporate speech and corporate participation in elections. Students will study topics that include the First Amendment, defamation and privacy. Court opinions and legislation will be the course’s primary focus, however students will also examine contemporary and historic theory of free expression.

COMM-ST 483 Research Seminar In Communication Studies Credits: 3
This is the departmental capstone course and is required for majors in their last semester of their senior year. The course summarizes and extends student’s theoretical and applied understanding of the role of communication competence in the work place and beyond. The course also focuses on refining student’s research competencies and their appreciation of the cultural role of modern communication methods.
Prerequisites: Senior standing.

COMM-ST 484 Communication Studies Activities Credits: 1-4
Internships opportunities for advanced students involved in community and campus activities. Student must receive approval of advising professor in semester prior to enrollment. No more than four hours with any one project.

COMM-ST 492 Advertising Campaigns Credits: 3
The course content focuses on branding, re-branding or development of an identity program, and combines advertising planning with creative execution. Students will learn how to develop advertising/marketing/creative campaign plans for a specific client(s), conceptualize, design and develop all creative aspects including but not limited to logo/identity, copy, advertising, website development, app design, etc., and complete a presentation of the plans/briefs and final creative developments of the plans/briefs and creative to the client(s).
Prerequisites: COMM-ST 446 or COMM-ST 447 or COMM-ST 387.

COMM-ST 498 Special Problems In Communication Studies Credits: 1-3
Research and/or projects for advanced upper class students. Student must receive approval of advising professor in semester prior to enrollment. No more than three hours with any one instructor.

COMM-ST 5554 Graduate Seminar: Screenwriting Credits: 3
Students will complete their feature screenplay, focusing on acts two and three and then ready the script for submission to contests and industry contacts. We will focus on in-depth scene work, polishing dialogue and deepening theme.
Prerequisites: COMM-ST 454 or ENGLISH 429B.

COMM-ST 5597 Directed Graduate Studies: Readings Credits: 1-6
Special Projects on the graduate level.

COMM-ST 5598 Directed Graduate Studies: Non-Thesis Research Credits: 1-6
Special projects on the graduate level.
Bachelor of Arts: Film and Media Arts

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:
• Analyze the complex social, political, economic and aesthetic history of the cinema in critical writing.
• Assess films and film culture in relationship to a variety of theoretical traditions.
• Identify and describe key terms and concepts and major trends and periods related to film history and theory.
• Apply film theory concepts to film texts in written form and in their creative work.
• Demonstrate knowledge of media making craft as a collaborative and creative process applying theoretical historical and aesthetic concepts.
• Demonstrate the ability to create quality media productions including skills in audio, cinematography, editing and producing.

Program Requirements

Program Specific Recommendations for UMKC General Education Core Coursework

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<th>Code</th>
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<tr>
<td>Anchor II 1</td>
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<td>Anchor III 1</td>
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<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
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<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
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<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
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<td>Focus A (Satisfied in program requirements below)</td>
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<td>Focus B (Satisfied in program requirements below)</td>
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<tr>
<td>Focus C (May be satisfied by Constitution requirement below)</td>
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<td>Focus Elective (Satisfied in program requirements below)</td>
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<td>Total Credits</td>
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</table>

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement
Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”
Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
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<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
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<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
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<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
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<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
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<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
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<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
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</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

**College of Arts & Sciences Degree Requirements**

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
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<td>Science and Math Division of CAS</td>
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<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
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<tr>
<td>Writing Intensive Course (300-level or above)</td>
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<td>Foreign Language (3rd Semester Level)</td>
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<td>Mathematics For Liberal Arts</td>
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<td>or Precalculus</td>
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<tr>
<td>Laboratory Science Experience</td>
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</table>

Total Credits 34

1 ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

2 This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

**Major Requirements**

The major requirements curriculum for the B.A. would be 30 credit hours of required courses, 12 credit hours of film production and screenwriting electives, 6 credit hours of film and media studies credits, plus 1-8 credit hours of COMM-ST 411, Film and Media Arts Seminar.

The B.A. in Film and Media Arts requires 48 credit hours of coursework, plus the one-credit Film and Media Arts Seminar each semester that a student is enrolled in the Film and Media Arts major. Students must maintain a 2.0 GPA in their major courses. Only major courses with a grade of C- or higher will be accepted for credit in the major, and counted toward the major GPA.

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

<table>
<thead>
<tr>
<th>Code</th>
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<tr>
<td>ART 206</td>
<td>Photography I</td>
<td>3</td>
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<tr>
<td>COMM-ST 230</td>
<td>Introduction to Film Studies</td>
<td>3</td>
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<td>COMM-ST 250</td>
<td>Introduction to Film and Video Production</td>
<td>3</td>
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<tr>
<td>COMM-ST 339</td>
<td>Introduction to Film Theory</td>
<td>3</td>
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<td>COMM-ST 346</td>
<td>Art of the Short Film</td>
<td>3</td>
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<tr>
<td>COMM-ST 354/ENGLISH 339</td>
<td>Introduction to Screenwriting</td>
<td>3</td>
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<tr>
<td>COMM-ST 373</td>
<td>Intermediate Media Production</td>
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<td>COMM-ST 471</td>
<td>Advanced Media Production</td>
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<tr>
<td>COMM-ST 484</td>
<td>Communication Studies Activities (Internship)</td>
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</table>

**Film Production Electives - Choose 4 of the following:** 12

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>COMM-ST 363</td>
<td>Radio Production I</td>
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<tr>
<td>COMM-ST 381</td>
<td>Narrative Production</td>
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<tr>
<td>COMM-ST 385</td>
<td>Documentary Production</td>
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<td>COMM-ST 386</td>
<td>Animation</td>
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<tr>
<td>COMM-ST 454</td>
<td>Advanced Screenwriting</td>
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<tr>
<td>COMM-ST 457</td>
<td>Client-Based Media Production</td>
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<tr>
<td>COMM-ST 473</td>
<td>Directing Actors and Scenes</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 484</td>
<td>Communication Studies Activities</td>
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</table>

**Film Studies Electives - Choose 2 of the following:** 6

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COMM-ST 320</td>
<td>Mass Media, Culture And Society</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 323</td>
<td>Concepts of the Hero in Ancient Literature and World Cinema (Focus C)</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 345</td>
<td>German Film (Focus A)</td>
<td></td>
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<tr>
<td>COMM-ST 347</td>
<td>Topics in Film Genre</td>
<td></td>
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<tr>
<td>COMM-ST 376</td>
<td>History Of The Film Industry</td>
<td></td>
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<tr>
<td>COMM-ST 384</td>
<td>Documentary Film History</td>
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<tr>
<td>COMM-ST 391</td>
<td>The World(s) Of Alfred Hitchcock</td>
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<tr>
<td>COMM-ST 392</td>
<td>Topics in World Cinema</td>
<td></td>
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<tr>
<td>COMM-ST 393</td>
<td>Topics in Sound &amp; Cinema</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 394</td>
<td>Topics in Gender and Cinema</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 411</td>
<td>Seminar in Film and Media Arts</td>
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</tr>
</tbody>
</table>

**Seminar Course (taken each semester a student is enrolled in the BA in Film and Media Arts degree program at UMKC):** 8

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM-ST 411</td>
<td>Seminar in Film and Media Arts</td>
<td></td>
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</tbody>
</table>

**Total Credits** 56

1 Elective courses may be offered on a rotation basis. Please consult with advisor for current availability.

**General Electives**

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>9</td>
</tr>
</tbody>
</table>

**Minimum GPA: 2.0**

**Total Credit Hours: 120**

**Tools for Planning and Fulfilling Academic Requirements**

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major "fit". In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student's officially recorded (Office of Registration and Records) and "what if" plans of study. This evaluation is used to certify all graduation requirements.
UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Minor in Communication Studies

Student Learning Outcomes

Students graduating from this program will:

• Oral and written communication competence.
• The development of critical thinking skills.
• The development of both social and professional skills.

The Department of Communication Studies offers a variety of program areas, including interpersonal communication, public communication, print and electronic journalism, advertising, public relations, media theory and history, as well as radio, television, and film/video production. While each of these program areas have distinct outcomes in regard to professional competence, the faculty makes a strong effort to work collaboratively to assure that the measure of success in earning a degree in Communication Studies is defined in three departmental outcome goals which we seek to make one in the learning process:

1. Oral and written communication competence.
2. The development of critical thinking skills.
3. The development of both social and professional skills.

We recognize that the development of “professional skills” involve both general and specific outcomes. General outcomes include producing students who display professional standards in regard to interpersonal, intercultural, and organizational communication skills, as well as professional work habits (punctuality, reliability, ethical discernment, teambuilding, etc.). Specific professional skills taught in the Department prepare students to succeed in the professional areas of business communication, health communication, advertising, public relations, film, broadcasting, and journalism.

The Department makes a conscious effort to assess our curricula, teaching, as well as learning processes, and student/faculty competence, on the basis of student learning outcomes. We take pride in our reputation as a “teaching” department.

These outcome goals must equally serve students who will be immediately entering the workplace following the attainment of their undergraduate degree, as well as those who will be entering graduate school programs in a wide variety of academic areas (law, business, interpersonal and public communication, journalism, film, among others).

In every departmental course/lab, we consciously seek to employ specific learning process options that reinforce the three goals above.

A minor in communication studies may be earned by completing two required courses (COMM-ST 110 and COMM-ST 308), plus another 12 credit hours in any 300- or 400-level courses within the department, except for those listed below. Students may declare their minor by meeting with the undergraduate advisor and filing a completed Declaration of Major Form (available in 202 Haag Hall) with a current copy of their transcript. Only minor courses with a grade of C- or higher will be accepted for credit in the minor.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Required Courses</td>
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</tr>
<tr>
<td>COMM-ST 110</td>
<td>Fundamentals Of Effective Speaking And Listening</td>
<td>3</td>
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<tr>
<td>COMM-ST 308</td>
<td>Introduction To The Study Of Human Communication</td>
<td>3</td>
</tr>
<tr>
<td>Additional 300 or 400 level courses within the department except for those listed below.</td>
<td>12</td>
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<tr>
<td>Total Credits</td>
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<td>18</td>
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</tbody>
</table>

COMM-ST 390 does not count toward the minor in Communication Studies.

Courses may be offered on a rotation basis. Please consult advisor for current availability.

Minimum GPA: 2.0
## Minor in Film Studies

### Student Learning Outcomes

Students graduating from this program will:

- Assess films, film culture and film history using film theory.
- Specify relationships between film form and meaning using close textual analysis.
- Analyze the relevance of global cinema history to film production.
- Identify social, political and aesthetic elements of cinema.
- Research and formulate theoretical questions and synthesize original scholarship in appropriate written form.
- * Construct short films in a variety of modes possibly including narrative, documentary, animated and promotional.

The Film Studies minor emphasizes an interdisciplinary study of film and media, critical thinking, creative exploration and skill development by combining the study of film history and theory with the art and practice of filmmaking. Students may write, produce, direct and edit narrative, documentary and experimental shorts while studying histories and theories of the moving image.

Only minor courses with a grade of C- or higher will be accepted for credit in the minor.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>Required Courses</strong></td>
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<tr>
<td>COMM-ST 230</td>
<td>Introduction to Film Studies</td>
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<td>COMM-ST 339</td>
<td>Introduction to Film Theory</td>
<td>3</td>
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<tr>
<td><strong>Electives</strong></td>
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<tr>
<td>Select four of the following:</td>
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<tr>
<td>ANCH 303</td>
<td>Film Adaptation</td>
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<tr>
<td>COMM-ST 250</td>
<td>Introduction to Film and Video Production</td>
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<tr>
<td>COMM-ST 320</td>
<td>Mass Media, Culture And Society</td>
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<td>COMM-ST 323</td>
<td>Concepts of the Hero in Ancient Literature and World Cinema</td>
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<tr>
<td>COMM-ST 341WI</td>
<td>Rhetorical Theory And Criticism</td>
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<tr>
<td>COMM-ST 345/GERMAN 341</td>
<td>German Film (Focus A)</td>
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<tr>
<td>COMM-ST 346</td>
<td>Art of the Short Film</td>
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<td>COMM-ST 351WI</td>
<td>Fundamentals Of Writing For The Media</td>
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<tr>
<td>COMM-ST 354/ENGLISH 339</td>
<td>Introduction to Screenwriting</td>
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<tr>
<td>COMM-ST 363</td>
<td>Radio Production I</td>
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<tr>
<td>COMM-ST 373</td>
<td>Intermediate Media Production</td>
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<td>COMM-ST 376</td>
<td>History Of The Film Industry</td>
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<td>COMM-ST 381</td>
<td>Narrative Production</td>
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<td>Documentary Film History</td>
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<td>COMM-ST 385</td>
<td>Documentary Production</td>
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<td>COMM-ST 386</td>
<td>Animation</td>
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<tr>
<td>COMM-ST 391</td>
<td>The World(s) Of Alfred Hitchcock</td>
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<td>COMM-ST 392</td>
<td>Topics in World Cinema</td>
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<td>COMM-ST 393</td>
<td>Topics in Sound &amp; Cinema</td>
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<td>COMM-ST 394</td>
<td>Topics in Gender and Cinema</td>
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<tr>
<td>COMM-ST 400</td>
<td>Special Studies (topic must be within the Film/Media Studies Emphasis)</td>
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<tr>
<td>COMM-ST 454</td>
<td>Advanced Screenwriting</td>
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<td>COMM-ST 457</td>
<td>Client-Based Media Production</td>
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<td>COMM-ST 471</td>
<td>Advanced Media Production</td>
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<td>COMM-ST 473</td>
<td>Directing Actors and Scenes</td>
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<td>COMM-ST 478</td>
<td>Media Law</td>
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<td>COMM-ST 484</td>
<td>Communication Studies Activities</td>
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<tr>
<td>COMM-ST 498</td>
<td>Special Problems In Communication Studies</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 18
Elective courses may be offered on a rotation basis. Please consult advisor for current availability.
Department of Criminal Justice and Criminology

5030 Cherry Street, 434 Cherry Hall
(816) 235-2751
Fax: (816) 235-5193
mail to: umkccjc@umkc.edu (falkp@umkc.edu)
http://cas.umkc.edu/cjc

Mailing Address
University of Missouri-Kansas City
Department of Criminal Justice and Criminology
5030 Cherry Street, 434 Cherry Hall
Kansas City, MO 64110-2499

Department Chair:
Kristi Holsinger

Professor Emeritus:
Wayne Lucas

Professor Emerita:
Cathleen Burnett

Professors:
Alexander Holsinger (undergraduate program director), Kristi Holsinger (chair), Kenneth Novak

Associate Professors:
Toya Like

Assistant Professors:
Janet Garcia-Hallett, Jennifer Owens, Lori Sexton (principal graduate advisor)

Assistant Teaching Professor:
Lindsey Arbuthnot Clancey

Administrative Assistant:
Tricia Falk

Department Description

The Department of Criminal Justice and Criminology offers programs of study leading to the following degrees:

- Bachelor of Arts in Criminal Justice and Criminology
- Master of Science in Criminal Justice and Criminology

A program minor is available in Criminal Justice and Criminology.

The mission of the department is to extend knowledge about the nature of crime and criminal justice. This mission includes continuing participation by faculty in significant criminological research; other scholarly endeavors; and inviting students to join in that activity by:

- Learning the core materials of the discipline.
- Acquiring research skills.
- Assisting in faculty research.
- Becoming involved in student activities that supplement coursework and research.

Within the context of a liberal arts education, the program offers an interdisciplinary approach to study the criminal justice system. The program is designed to develop the intellectual skills required to function effectively as a field practitioner and to provide the knowledge base for careers as planners, administrators and researchers. The course offerings emphasize issues and problems relevant to policy considerations in criminal justice.

Department Activities

Undergraduate Academic Advising

Student academic advising is a continuous process in the department. Undergraduate advisors are available for consultation throughout the academic year. The department recommends that students check the program requirements in the department office before filing the declaration of major form. Undergraduate majors are encouraged to consult with the department to establish a tentative plan of study. Students should leave
University of Missouri - Kansas City

181

their mail and email addresses with the department office so that they can receive notifications concerning class time tables, new classes, and other
departmental information of interest to majors.

Financial Assistance
Students can receive financial assistance through various campus scholarships, loan programs, grants and the work-study program. Students who are
interested should contact the Financial Aid and Scholarships Office (http://www.sfa.umkc.edu/site2).

Alvin Brooks Scholarship
Award Amount: Varies
Qualifications: Full-time undergraduate student majoring in Criminal Justice & Criminology, who is in good academic standing with a minimum GPA of
2.0. Preference given to students who are a first generation college student, who graduated from an accredited Kansas City, Missouri high school or
transferred from a Kansas City area community college. The student must demonstrate financial need.
How to Apply: The College of Arts and Sciences' Scholarship Application.

Clarence Kelley Memorial Scholarship
Award Amount: Varies
Qualifications: Full-time undergraduate student majoring in Criminal Justice & Criminology, who is in good academic standing. Preference will be given
to students who have demonstrated a commitment to high academic achievement.
How to Apply: The College of Arts and Sciences' Scholarship Application

Criminal Justice Club and Honor Society
The Criminal Justice and Criminology Club is open to all students interested in criminal justice topics; students do not have to be a Criminal Justice
and Criminology Major. Club activities include service projects in the community, sponsorship of community speakers on campus, participation in
local and regional professional meetings, and learning about internships and research opportunities. The department also has a chapter of Alpha Phi
Sigma, a national honor society for Criminal Justice students. Students must meet certain academic qualifications and pay an initiation fee to join this
national honor society.

Cooperative Programs
The department cooperates with several other programs on the campus by jointly listing courses at the undergraduate level. Students may benefit
from combining one of these areas of study with their major:
• Honors College
• Women's and Gender Studies
• Black Studies

Graduate Academic Advising
Student academic advising is a continuous process in the department. The principal graduate advisor is available for consultation throughout the
academic year. Graduate students are required to consult with the department to establish a tentative plan of study. A master's degree program of
study form, and a form appointing a supervisory committee, should be submitted by the end of the student's first semester in the program. Students
should leave their mail and e-mail addresses with the department so they can receive notifications concerning class time tables, new classes and
other departmental news and opportunities.

Faculty
Lindsey Arbuthnot Clancey Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=arbuthnot); assistant teaching professor of
criminal justice and criminology; B.A. (University of Missouri); M.S. (University of Missouri-Kansas City).
Cathleen Burnett professor emerita of sociology/criminal justice and criminology; B.A. (St. Lawrence University); M.S., Ph.D. (Vanderbilt University).
Janet Garcia-Hallett Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=garcia-hallett"); assistant professor of criminal justice
and criminology; B.A. (City University of New York Hunter College); M.A., Ph.D. (Rutgers University).
2,3

Alexander Holsinger Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=holsinger); professor of criminal justice and
criminology; B.A. (Aquinas College); M.S. (Illinois State University); Ph.D. (University of Cincinnati).
2,3

Kristi Holsinger Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=holsinger); professor of criminal justice and criminology;
B.A. (Aquinas College); M.S., Ph.D. (University of Cincinnati).


Toya Z. Like\textsuperscript{2,3} Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=like); associate professor of criminal justice and criminology; B.S., M.A., Ph.D. (University of Missouri-St. Louis).

Wayne L. Lucas; professor emeritus of criminal justice and criminology; B.S., M.S. (Illinois State University); Ph.D. (Iowa State University).

Ken Novak; Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=novak); professor of criminal justice and criminology; B.S. (Bowling Green State University); M.S., Ph.D. (University of Cincinnati).

Jennifer Lynn Owens\textsuperscript{2,3} Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=owens); assistant professor of criminal justice and criminology; B.S. (University of Nebraska at Lincoln); M.A. (University of Nebraska at Omaha); Ph.D. (University of Missouri-St. Louis).

Lori Sexton\textsuperscript{2,3} Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=sexton); assistant professor of criminal justice and criminology; B.S. (Cornell University); M.A. (University of Pennsylvania); Ph.D. (University of California, Irvine).

\textsuperscript{1} Associate or Adjunct Graduate Faculty
\textsuperscript{2} Members of UMKC Graduate Faculty
\textsuperscript{3} Members of UMKC Doctoral Faculty

Undergraduate

Undergraduate Degrees:
- Bachelor of Arts: Criminal Justice and Criminology (p. 187)
- Minor in Criminal Justice and Criminology (p. 193)

Graduate

Graduate Degrees:
- Master of Science in Criminal Justice and Criminology (p. 191)

Courses

CJC 101 Introduction To Criminal Justice Credits: 3
This introductory overview course is designed to familiarize students with the three main components of the adult criminal justice system: police, courts, and corrections. The course will investigate the viewpoints of offenders, victims, social scientists, the general public, and workers in the system on diverse issues of social control, criminal behavior, treatment and punishment.

CJC 210 Introduction To Statistics In Sociology/Criminal Justice Credits: 3
A first course in the statistical analysis of quantitative data. Course emphasizes descriptive statistics, probability theory, parameter estimation, bivariate hypothesis testing, and computer applications. 
Prerequisites: MATH 110, MATH 116 (or equivalent).

Cross Listings: SOCIOL 263.

CJC 215 Methods Of Criminological Research Credits: 3
A seminar which explores the interrelationships between sociology theory, research methods and statistics. May focus on major contemporary issues building on and integrating knowledge obtained in previous courses.

CJC 220 Theoretical Criminology Credits: 3
A comprehensive examination of the major criminology theories, their philosophical assumptions, and the socio-historical context in which they were articulated.

CJC 240 Delinquency And Juvenile Justice Credits: 3
This course focuses on the nature, extent and theoretical explanations of delinquency and the history and philosophy behind the juvenile justice system in terms of the roles played by law enforcement, juvenile courts, and corrections. Juvenile groups such as status offenders, delinquents, gang members, victims, and juveniles adjudicated as adult criminals will also be examined.

CJC 280 Gangs and Crime Credits: 3
This course will provide students with an overview of what is known about street gangs. Specifically, the course will cover definitional issues, gang organization and structure, gang culture, gang member onset and desistance, among other issues related to criminal street gangs. This course will also encourage students to think critically about communities, crime, and group formation.

CJC 282 Criminal Justice & Criminology in Popular Media Credits: 3
This course examines criminology and criminal justice as it is represented in popular film to explore critically the impact media has on the public's perception of the criminal justice system, the origin of criminal behavior, and the broad sociological constructs of criminology. A key focus is the media's power to shape criminal justice policy and practice.
CJC 332 Race, Class and Justice Credits: 3
This course examines the intersection of race and class as it relates to crime and justice. Specifically, the course focuses on race and class in relation to criminological theory and the application of justice system practices and policies.

Cross Listings: BLKS 480.

CJC 350 Social Deviance Credits: 3
The dominant sociological perspectives on deviance will be discussed with special attention given to the processes that define behavior and persons as deviant and the impact of such definitions on social relationships and identity.

Cross Listings: SOCIOL 320.

CJC 351 Policing In The Community Credits: 3
The purpose of this class is to introduce the student to police operations and the effectiveness of different police programs. The material discussed in class focuses on empirical evaluations of police effectiveness, and the role of the police in today's society. This class is divided into four broad areas: the nature and effectiveness of patrol; criminal investigations; special operations including crackdowns, responses to domestic assaults, and hot spot policing; and the latest crime prevention strategies, such as community oriented policing and problem solving.

CJC 354 Policing in America Credits: 3
A comparison of law enforcement and peace-keeping functions of the police provides a basic theme for the course, with examination of several topics related to police accomplishing these functions. Some of the topics covered include police discretion, police professionalism, the police officer as a bureaucratic agent, and police-community relations.

CJC 361 Principles & Practices of Criminal Courts Credits: 3
The course examines the American criminal judicial system, including the history, philosophy, and changing nature of criminal courts. The activities of lawyers, judges, and related professionals are emphasized, and current topics involving the criminal court are discussed.

CJC 364 The Supreme Court And The Criminal Process Credits: 3
Course examines recent Supreme Court decisions on the constitutional aspects of the administration of justice. Topics include the nationalization of the Bill of Rights and jurisdiction with an emphasis on problems involving the Fourth, Fifth, Sixth, Eighth, and 14th Amendments.

CJC 370 Principles Of Corrections Credits: 3
This course explores adult institutional and community-based corrections in the United States. Major areas examined include the evolution of corrections, the process of correctional reform, adult offenders and prison culture, treatment and rehabilitation of offenders, intermediate sanctions, and correctional workers.

CJC 371 Community Corrections Credits: 3
This course will examine intermediate sanctions in the United States, such as probation, halfway houses, boot camps, among others. Specifically, the origin and proliferation of the use of corrections in the community will be explored in depth. The effectiveness of several major community correctional strategies will be explored through a review of the research literature base. Several issues will be highlighted including (but not limited to) ethical constraints, political problems, and treatment effectiveness in light of the use of community sanctions.

CJC 380 Psycho-Social Determinants of Crime & Delinquency Credits: 3
This course offers an interdisciplinary approach to the study of crime and delinquency outlining biological, developmental, psychological, social-psychological, and societal factors associated with criminal behavior. The course also focuses on ways in which these factors may be integrated to solve, explain, and prevent crimes.

CJC 383 Policies Of Drug Use And Control Credits: 3
Utilizing both historical and contemporary information, this course provides an assessment of the "drug problem" in the U.S. and policies of control developed in response to the problem. Drug use criminalization, legalization, medical treatment, and prevention strategies and related issues are considered in regard to scientific knowledge related to the patterns, causes, and impact of substance abuse.

CJC 385 Victimology Credits: 3
This course addresses the study of crime, criminals and victims. It examines the relationship between victims and offenders. Special treatment is given to criminological as well as victimological theories. A segment of the course will address the sporadic nature of juvenile crime. The course will examine viable strategies to reduce levels of victimization. In the final analysis the course will offer crime prevention strategies.

CJC 390 New Dimensions In Criminal Justice Credits: 3
Examination of contemporary topics, issues or problems related to the development of justice and/or operations in response to criminal and related behaviors addressed by the justice system. May be repeated for credit when the topic changes.

CJC 430 Women, Crime And Criminal Justice Credits: 3
This course will focus on the experiences of women and girls with crime in America. The primary areas studied will be females as victims, offenders, and professionals in the criminal justice system. Various criminological theories and research will also be examined in light of gender.

CJC 431 Hate & Bias Crimes Credits: 3
The purpose of this course is to examine the development and enforcement of hate crime law within our legal system. Discussion focuses on the causes and consequences of hate crimes, the constitutional issues associated with bias crime statutes, and the effectiveness of formal and informal social controls for eliminating hate and bias crimes.
CJC 435WI Gender And Law Credits: 3
This course examines the contemporary legal rights and obligations of women in light of the historical relationships between the social status of women and their legal status. Topics investigated include proprietary and contractual rights, family law, employment practices, educational opportunities, and women as victims and perpetrators of crime.
Prerequisites: RooWriter.

CJC 481 Restorative Justice Credits: 3
This course is an introduction to the concept of restorative justice. The course examines the roots of the concept, its theoretical perspective, and its applications in juvenile justice, mediation and correctional settings.

CJC 482 The Death Penalty In America Credits: 3
This course takes a sociological look at the most extreme punishment currently in use in the United States. Society debates its value without giving much weight to the research which social science conducts. Indeed, the political domain frequently misrepresents the data that is available. The course evaluates the adequacy of the research and separates the strands of the debates in order to understand the role of the death penalty in our society.

CJC 484 White Collar Crime Credits: 3
This course examines activities variously called white-collar crimes, crimes of privilege, corporate and government crimes, and upperworld crimes. The purposes of the course are (1) to describe, analyze, and assess social impact of these offenses, (2) to examine the capacity of existing theories in criminology and social deviance to account for those activities, (3) to describe the responsibilities, powers, and activities of those agencies which have jurisdiction over them, and (4) to assess the effectiveness of various legal sanctions in controlling such activities and to review the problems involved in legislation intended to achieve that control.

CJC 488 Mentoring Juvenile Justice System-Involved Youth Credits: 3
Youth mentoring experience in a juvenile justice setting with required training and classroom study.
Prerequisites: successful background check completion.

CJC 490 Directed Studies In Criminal Justice And Criminology Credits: 1-3
Individual research and study in the student's field of interest as approved and directed by major professors. The work involves examination and reporting of selected problems affecting the various agencies of our legal system. Only two of the 490 sequence courses and up to 3 credit hours can be applied to the major. A. Law Enforcement B. Court Operations and Administration C. Corrections D. Legal Theory and Philosophy E. Criminological Theory F. Sociology of Law.

CJC 491 Internship In Criminal Justice Credits: 3-6
Intern experience under faculty supervision in local, state, federal or private agencies working with justice system involved offenders.
Prerequisites: CJC 101, junior standing.

CJC 492 Topics In Criminal Justice Credit: 1
Specialized, short courses with focused examination of particular topics germane to the study of the justice system. May be repeated for credit.

CJC 495WI Capstone: Criminal Justice And Criminology Credits: 3
This course is designed to integrate student's program of study in the major of criminal justice and criminology. The class examines current conditions of the justice system with respect of race, gender and social class.
Prerequisites: RooWriter.

CJC 5500 Sociology Of Law Credits: 3
A sociological study of the legal system with focus on organizational analyses of the legal profession, courts as a social system, the bureaucratization of the legal process, stratification and the allocation of legal services and careers.

CJC 5511 Sociological Methods II Credits: 3
Quantitative research is the primary focus of the course; emphasis is placed on problem formulation; research design; sampling procedures, questionnaire construction and interviewing techniques; data collection; problems of scaling, computer statistical programs; linking appropriate statistical analyses with data analysis; and report writing.
Prerequisites: CJC 483 or equivalent.

Cross Listings: SOCIOL 5511.

CJC 5515 Qualitative Research Methods in Criminal Justice Credits: 3
This course focuses on qualitative research methods, such as interviewing techniques, focus groups, content analysis, and field observation. Emphasis is placed on research design, data collection, and data analysis.
Prerequisites: CJC 483 or equivalent.
CJC 5516 Intermediate Statistics Credits: 3
A systematic development of the logic and practice of selected statistical methods used in sociological research. Included are analysis of variance and covariance, regression analysis, multiple contingency, and non-parametric tests.
**Prerequisites:** CJC 363 or equivalent.

**Cross Listings:** SOCIOL 5516.

CJC 5518 Advanced Criminological Theory Credits: 3
This course provides an understanding of past as well as present criminological theories by examining each criminological tradition (beginning in the 18th century and continuing into the present.) The primary aim of the course is to determine the root causes of deviant and criminal behaviors. Moreover, this course offers special attention to how society has historically reacted and responded to crime and deviant behavior. Furthermore, by examining crime and deviant behavior from a historical context, the students are able to determine how criminological theories have influenced public policies designed to reduce and control criminal behavior. In the final analysis, students will examine the rationales that society use to justify efforts toward punishment and treatment.
**Prerequisites:** CJC 319 or equivalent.

CJC 5520 Juvenile Justice Credits: 3
This course provides a historical and contemporary overview of the juvenile justice system via a critical examination of the function of this system and theories explaining delinquency in adolescence. We will explore special topics within juvenile justice and proposals for juvenile justice reform.

CJC 5551 Seminar In Policing Credits: 3
This course addresses the important topics related to the institution of policing. Through readings and class discussions, students will gain a better understanding of both historical aspects of policing as well as the future of policing. Topics include selection, training and socialization, police management, deviance and corruption, use of force, community oriented policing.

CJC 5565 Seminar In Crime Prevention Credits: 3
This seminar examines variations in methods to reduce crime in America, including strategies from the criminal justice system as well as other institutions. Building on established criminological theory, this seminar will evaluate the best practices to prevent crime across a variety of social contexts.

CJC 5570 Contemporary Corrections And Correctional Policy Credits: 3
Present-day correctional alternatives are considered regarding the correctional policy that is, or potentially can be, carried out within the various programs. Prisons, probation, parole community-based programs are evaluated as to the theory of punishment demonstrated within these programs. Emphasis is placed on what constitutes a rational and workable corrections policy and the form of correctional programs needed to realize such policy.

CJC 5575 Correctional Rehabilitation And Treatment Credits: 3
This course will begin with a thorough examination of the rise, fall, and recent resurrection of "rehabilitation and treatment" in American correctional strategies. Both past and current treatment strategies will be studied regarding their effectiveness in reducing recidivism. This will be done through a survey of the quantitative literature base. There will be some emphasis on treating special needs offenders (e.g., sex offenders, juvenile offenders, offenders with developmental disabilities or mental illnesses.)

CJC 5576 Seminar In Criminal Justice And Criminology Issues Credits: 3
This course is an advanced exploration of the relationship between the criminal justice system and criminal behavior from at least one of the following perspectives: psychological, sociological, economic, legal, political or administration/management. Will include discussions and analysis of contemporary readings and on-going research in the selected perspective.

CJC 5580 Seminar: Policy And Decision Making In Criminal Justice Credits: 3
The focus of the course is assessment of the character and recent crime trends in the United States, with attention to identifying elements that shape justice system policies in response to crime. Consideration is given to the nature and scope of policy and decision-making processes in legal institutions and law enforcement bureaucracies, how such policies have impacted crime, and alternative policies address the problem of crime.

CJC 5590 Directed Studies In Criminal Justice And Criminology Credits: 1-3
Individual research and study in the student's field of interest as approved and directed by major professors. The work involves examination and reporting of selected problems affecting the various agencies of our legal system. A. Law Enforcement B. Court Operations and Administration C. Corrections D. Legal Theory and Philosophy E. Criminological Theory F. Sociology of Law.

CJC 5592 Advanced GIS For Crime Analysis Credits: 3
This course provides an overview of crime mapping as it relates to the spatial and temporal analysis of crime. Utilizing theory related to criminal offending, this course will provide students with hands-on experience in geographic profiling and crime prevention strategies.
**Prerequisites:** GEOG 203 or equivalent.

CJC 5595 Crime Analysis Internship Credits: 3
This experience involves working with criminal analysts in the field. Students will learn and hone practical skills while being supervised by department faculty or staff.
**Prerequisites:** CJC 5592.
CJC 5599 Research And Thesis Credits: 1-6
Directed specialized research. Before writing a thesis, the student must clear the topic and research design with the Supervisory Committee.

CJC 5699 Dissertation Research Credits: 1-12
Individual directed research leading to preparation and completion of doctoral dissertation.
Prerequisites: Ph.D. course requirements completed.

CJC 5899 Required Graduate Enrollment Credit: 1
Bachelor of Arts: Criminal Justice and Criminology

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

• Demonstrate ability to integrate, critique, synthesize, and apply content.
• Demonstrate strong oral and written communication skills.
• Demonstrate understanding of skills.
• Possess an understanding of job and career paths.
• Demonstrate ability to link theory, research and policy.
• Demonstrate ability to engage with and address existing social problems.

The mission of the Bachelor of Arts in Criminal Justice and Criminology is to offer students the opportunity to learn how to analyze and interpret the systems of social control that are applied through the criminal justice system and throughout society, as well as how to explain the causes and consequences of these social structures. This major focuses on crime, criminals, and professionals who handle these concerns through arrest, court processing and punishments. As such, the major emphasizes community engagement and service so to prepare students for the jobs and leadership opportunities that will be necessary for their role as future change agents. The major offers skills in critical thinking and in conducting and evaluating research which promote evidence-based decision-making and effective communication. Always striving for best practices, this major is especially relevant to the urban engagement mission of the university, and its domain is always situated within inclusive learning environments which demand students become culturally competent individuals in order to understand and thrive in society.

Career Implications
The B.A. curriculum is designed to prepare students for entry-level positions and middle-management careers in the public and private sectors of police and security services, adult and juvenile justice systems and post-adjudicatory services such as probation, parole and related private organizations, as well as federal, state and local administrative agencies. The program is intended to augment skills that are developed in the training programs and academies of service agencies and to develop new talent for the wide variety of agencies and organizations that administer our legal institutions. In addition to the foregoing variety of career roles, CJC majors can exercise career options in consulting, government, human services, journalism and urban planning, and with the appropriate graduate training, in teaching social work, criminology and law.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>
DISC 100  Discourse I: Reasoning and Values (Speech and Writing)  3
DISC 200  Discourse II: Culture and Diversity (Writing and Speech)  3
DISC 300  Discourse III: Civic and Community Engagement (Speech and Writing)  3
Focus A  
Focus B (Satisfied in program requirements below)
Focus C (May be satisfied by Constitution course requirement below)
Focus Elective (Satisfied in program requirements below)
Total Credits  21

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) 1</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits  3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arts and Humanities Division of CAS 1</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Science and Math Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign Language (3rd Semester Level)</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>MATH 110 or MATH 116 or MATH 120</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course) 2</td>
<td>3</td>
</tr>
<tr>
<td>Laboratory Science Experience</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits  31

1 ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.
**Major Requirements**

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 101</td>
<td>Introduction To Criminal Justice (Focus C)</td>
<td>3</td>
</tr>
<tr>
<td>CJC 210</td>
<td>Introduction To Statistics In Sociology/Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CJC 215</td>
<td>Methods Of Criminological Research</td>
<td>3</td>
</tr>
<tr>
<td>CJC 220</td>
<td>Theoretical Criminology</td>
<td>3</td>
</tr>
<tr>
<td>CJC 495WI</td>
<td>Capstone: Criminal Justice And Criminology ²</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one course each from two different systems:

- **Policing:**
  - CJC 351: Policing In The Community
  - CJC 354: Policing in America

- **Courts:**
  - CJC 364: The Supreme Court And The Criminal Process

- **Corrections:**
  - CJC 370: Principles Of Corrections
  - CJC 371: Community Corrections

**Major Electives**

- CJC Electives (see restrictions below)  
  15

**Total Credits**  
36

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¹ STAT 235 is not a substitute for CJC 210.

² CJC 495WI is open only to CJC majors in their last year of coursework who have completed the RooWriter.

Students must receive a grade of no lower than C- in the core required courses (CJC 101, CJC 210, CJC 215, CJC 220, and CJC 495WI) and achieve an overall GPA of 2.0 in the major. Students with more than one academic major may apply only 9 credit hours from another degree program toward the CJC major.

It is suggested that students broaden their course choices by selecting related offerings in English (especially those courses that stress writing skills), philosophy, history, geography, political science, psychology, sociology and public administration.

**CJC Elective Restrictions**

In selecting courses to fulfill the 15 credit hours of CJC electives, CJC majors and minors should be aware of the following restrictions:

- No more than 3 credit hours of Directed Studies in Criminal Justice and Criminology (CJC 490) may be used to fulfill CJC elective requirements.
- No more than 3 credit hours of Internship in Criminal Justice (CJC 491) may be used to fulfill CJC elective requirements.
- No more than 3 credit hours of Topics in Criminal Justice (CJC 492) may be used to fulfill CJC elective requirements.

Students who are pursuing the CJC major or minor are strongly encouraged to meet with a CJC advisor each semester to review their progress toward degree completion, as well as to determine the appropriateness of coursework selected.

**General Electives**

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>29</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0
**Tools for Planning and Fulfilling Academic Requirements**

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major "fit". In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student's officially recorded (Office of Registration and Records) and "what if" plans of study. This evaluation is used to certify all graduation requirements.

UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
**Master of Science: Criminal Justice and Criminology**

**Program Description**

The M.S. degree in Criminal Justice and Criminology (CJC) offers coursework that emphasizes policy analysis of criminal justice and criminology issues. The M.S. in CJC prepares those seeking appropriate study and academic credentials to qualify for management and administrative positions in justice-related agencies. The degree may also serve as preparation for advanced study in criminology and criminal justice at the doctoral level.

**Application Procedures**

Applicants must submit an application for admission to UMKC and transcripts of their undergraduate work (and other graduate work if applicable) to the University Office of Admissions. Additionally, applicants must submit a personal statement to the department’s Admissions Committee (i.e., the Graduate Director). This statement should be two to three pages in length (double-spaced) and should identify how the applicant’s undergraduate education and their work or personal experience has prepared them for graduate study in the area of criminal justice and criminology. Applicants are also encouraged to express how they view study in our graduate program as fitting with their future career or educational goals. It is recommended that students review the M.S. in CJC program’s course offerings as well as the concentration areas of the faculty in order to glean additional information about what the academic programming has to offer.

Applicants for the spring term must have all materials to the admissions committee by November 1, and those applying for fall semester admission must have materials in by April 1. The department strongly recommends that application materials be submitted well in advance of the posted due date to ensure all materials will be on hand in time for review.

Decisions regarding admission to the graduate program are made by the graduate faculty of the program. Materials are reviewed with attention to past academic performance and substantive areas of study that would prepare students for CJC graduate study.

**Admission Requirements**

The minimum admission requirements for entrance into the M.S. in CJC program include the following:

1. Completed an undergraduate degree, from an accredited university or college, with coursework in the socio-behavioral sciences sufficient to prepare for graduate-level study in the criminal justice and criminology field.
2. Achieved a minimum cumulative GPA of 3.0 in all undergraduate work.
3. Completed three undergraduate courses, one each in statistics, research methods, and theories of crime.
4. Two letters of recommendation: Applicants should ask at least two individuals to provide references on their behalf using the MS Letter of Recommendation form (http://cas2.umkc.edu/cjc/pdfs/FORM_MS_CJC_Letter_of_rec_form.pdf). Please note that references may also include a written letter of reference, that speaks to the applicant’s scholastic aptitude, and their level of preparation for graduate-level education. References should be provided by individuals who are not related to the applicant, and ideally will come from individuals who have direct knowledge of the applicant’s academic credentials and preparedness.

The application process is competitive. Satisfaction of the minimum criteria stated above does not guarantee admission to the graduate program of study. Students are admitted according to their rank in the applicant pool and consideration of the adequacy of departmental resources. Students who do not meet admission requirements, but who otherwise may show promise for graduate work, may be admitted provisionally to the program. Provisional admission means deficiencies must be corrected before a student is fully admitted as a degree-seeking student in the M.S. in CJC program. Typical deficiencies include a need to take undergraduate coursework to prepare for graduate study in this program, or to demonstrate scholastic ability in graduate-level courses.

**Student Learning Outcomes**

Students graduating from this program will:

- demonstrate broad and deep knowledge of the prevailing explanations for criminal behavior (both macro/social causes, as well as micro/individualistic causes). Students will understand the historical origins of the prevailing theoretical explanations for criminal behavior, and will become fluent in the empirical literature that has served to test and further develop those theories.
- demonstrate the ability to design and execute research. Specifically, students will learn how to fully develop and execute a research proposals/projects of both a qualitative and quantitative nature. Students will also demonstrate the ability to analyze data, interpret findings, and communicate those findings in an accessible way to a general audience.
- demonstrate comprehensive knowledge regarding trends in crime, including crime trends throughout American history, and reasons for shifts in crime trends. Likewise students will demonstrate how and why policy develops within the Criminal Justice System, as well as what impact major policy shifts have had on the Criminal Justice System.

The Department of Criminal Justice and Criminology’s mission is to lead in graduate education within the area of Criminal Justice and Criminology; to deepen and expand scientific understanding of America’s justice systems; to develop a graduate-educated workforce and collaborate in urban issues and education; to create a vibrant learning and campus life experience for our master’s students.
The M.S. in CJC degree requires successful completion of 30 credit hours of graduate work. Within these 30 hours, students may elect to complete a thesis or pursue the Demonstration Project.

**A core of five courses is required of all students. The required courses include:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 5511</td>
<td>Sociological Methods II</td>
<td>3</td>
</tr>
<tr>
<td>CJC 5515</td>
<td>Qualitative Research Methods in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CJC 5516</td>
<td>Intermediate Statistics</td>
<td>3</td>
</tr>
<tr>
<td>CJC 5518</td>
<td>Advanced Criminological Theory</td>
<td>3</td>
</tr>
<tr>
<td>CJC 5580</td>
<td>Seminar: Policy And Decision Making In Criminal Justice</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits**  

The required graduate courses in statistics, research methods and theory demand completion of prerequisite courses in these areas from the student's undergraduate work. Those who have not had such courses may be required to take the prerequisite course(s) prior to enrolling in the graduate course. Beyond the required courses, students must complete an additional 15 hours of academic work. This work should include the available M.S. in CJC electives (which include the three courses listed above, of which at least one must be taken), other graduate-level courses from other departments that have been approved by the student’s Thesis Committee or the Graduate Committee prior to enrollment, and other coursework from the CJC curriculum that has been approved by the Graduate Committee prior to enrollment. These hours may also include Thesis hours, or Directed Study hours per the Demonstration Project depending on the desires of the student. The content of the 15 hours of study will reflect the student’s choices after consultation with their Thesis advisor, and/or the Graduate Committee, as well as the student’s decision regarding the Thesis or the Demonstration Project option.

In sum, the following generally reflects the two options - Thesis Option and Demonstration Project Option:

- **Thesis Option**: 15 credit hours of required courses + 9 hours of M.S. CJC graduate elective coursework + 6 hours of Thesis = 30.0 credit hours.
- **Demonstration Project Option**: 15 credit hours of required courses + 12 hours of M.S. CJC graduate elective coursework + 3 hours of Directed Studies = 30.0 credit hours.

**Thesis Option**

Those electing to write a thesis as part of their graduate work can receive up to 6 hours credit (CJC 5599) for preparation of the thesis. In addition to writing the thesis students must successfully complete an oral defense of that thesis before their supervisory committee. Thesis defenses are also open to the public. The research topic of the thesis will address some issue of specific interest to the student under the advisement of their thesis chair. Through courses, literature review, and analyses conducted in developing the thesis, students are expected to become proficient in their specific thesis topic area.

**Demonstration Project Option**

Students electing the Demonstration Project Option will take 3.0 credit hours of CJC 5590: Directed Studies, during their final semester of coursework. In addition, students conducting Demonstration Projects will take one additional 3.0 credit hour elective. These 6.0 credit hours (CJC 5590 - Directed Studies for the Demonstration Project along with one additional 3.0 credit hour elective) are in lieu of the 6.0 credit hours of CJC 5599 that a student electing to conduct a Thesis would take.

The demonstration project will require the student to write an independent research paper that outlines solutions to a given scenario. The process is designed to reflect the academic peer-reviewed protocol and will involve two stages of blind review. Please see the Graduate Guidebook (http://cas2.umkc.edu/cjc/pdfs/MS-Student-Guidebook.pdf) and/or the graduate director for more detail regarding the Demonstration Project.
Minor in Criminal Justice and Criminology

Student Learning Outcomes

Students graduating from this program will:

- Demonstrate knowledge of the Criminal Justice System, its subsystems (the institutions and structures of police, courts, and corrections) and their interactions (processes).
- Demonstrate knowledge of the major theoretical explanations for individual motivations to commit crime as well as the nature/occurrence of crime which includes the prominent schools of criminological thoughts - the Positivist, Classical and Chicago Schools of Criminology - and emergent theories.
- Demonstrate the ability to analyze criminal justice literature, through reading comprehension and interpretation.

Program Requirements

Undergraduate students can obtain a CJC minor. A minimum of 18 credit hours is required, including the introductory course CJC 101. At least 9 of the 18 credit hours must be in courses at the 300 or 400 level, and at least 9 of the 18 credit hours must be taken at UMKC. Only 6 credit hours from the major field of study may be applied toward a CJC minor, and only 3 credit hours may overlap between two minors. Students should receive a grade no lower than a C- in the required course and should have an overall 2.0 GPA for the minor.
Department of Economics

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M.A. Advisor:
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Business Specialist II:
Deborah E. Foster, (816) 235-2405

Office Support Assistant II:
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Professors Emeriti:
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Professors:
Mathew Forstater, James I. Sturgeon, Karen S. Vorst (chair)

Associate Professors:
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Assistant Professors:
Scott Fullwiler, Ellis Scharfenaker

Lecturers:
Judith Ancel, John Henry, Michael Kelsay, Ben Young

The Department of Economics is committed to promoting excellence in broad-based undergraduate programs; graduate and interdisciplinary doctoral education; research; and community, university and professional service. The department focuses its research, teaching and service efforts on the urban mission of the University by fostering a diversity of research and teaching perspectives for faculty and students.

The department offers an undergraduate major that can be completed either through day or evening classes and is a major participant in PACE (Program for Adult College Education).

Our Students

The department offers programs leading to a Bachelor of Arts, Master's of Arts and Interdisciplinary Ph.D., in Economics. It also provides undergraduate service courses to the College of Arts and Sciences, the Bloch School, and the School of Computing and Engineering. Undergraduate majors participate in a variety of visiting lecture programs and faculty colloquialism through the Economics Club and the Omicron Delta Epsilon (the economics honorary society).
Faculty and Facilities
Faculty members of the department maintain active, extensive research programs and a strong commitment to teaching – holding four outstanding teaching awards. Faculty members have served as presidents for national and regional economic associations and lectured and conducted research in the Fulbright Program, the Ford Foundation, the U.S. Department of Commerce, and the U.S. Department of Labor. Faculty members have established national and international reputations in a number of research fields. For a small faculty, the department has ranked high among other economics departments at comparable institutions nationally.

The Department of Economics and the Center for Economic Information are housed in Haag Hall. Faculty and other department programs are housed in Manheim Hall. Students have access to state-of-the-art computer labs and classrooms.

Center for Economic Information
Haag Hall, Room 210
5120 Rockhill Road
(816) 235-1394
http://www.umkc.edu/cei/

Peter Eaton, director
Douglas Bowles, associate director

The Center for Economic Information (CEI) was established in November 1994 with the goal of making local, regional and national information accessible to economic decision-makers in the Kansas City metropolitan area. The CEI is affiliated with the Department of Economics and the College of Arts and Sciences.

The center is involved in research, teaching and outreach activities. The primary expertise of the center is in application of information technology for economic analysis.

Missouri Council for Economic Education
The department houses the Missouri Council for Economic Education (MCEE). MCEE is the statewide provider of economic education training for elementary and secondary education. It is located in Manheim Hall.

Information
You may request information about economics programs by calling the department’s main number, (816) 235-1314; visiting the website at http://cas.umkc.edu/econ/; or sending an information request via email to economics@umkc.edu.

For specific information on the undergraduate degree program, contact Karen Vorst (816) 235-2837 or vorstk@umkc.edu. For master’s program inquiries, contact Erik Olsen, M.A. Advisor, (816) 235-1153 or olsenek@umkc.edu. Peter Eaton, IPhD Coordinator, (816) 235-2832 or mailto: eatonp@umkc.edu.

Faculty

W. Robert Brazelton Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=brazelton); professor emeritus of economics; B.A. (Dartmouth College); M.A., Ph.D. (University of Oklahoma).

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Karen S. Vorst Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=vorst); chair, department of economics, professor of economics; B.S. (Bowling Green State University); Ph.D. (Indiana University).

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John O. Ward Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=ward); professor emeritus of economics; B.A., M.A. (University of Toledo); Ph.D. (University of Oklahoma).

Ben Young Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=young); lecturer of economics, Ph.D. (University of Oklahoma).

1 Associate or Adjunct Graduate Faculty
2 Members of UMKC Graduate Faculty
3 Members of UMKC Doctoral Faculty

Undergraduate
Undergraduate Degrees:
- Bachelor of Arts: Economics
- Minor in Economics
- Certificate Program in Labor Studies

Graduate
Graduate Degrees:
- Master of Arts: Economics
- Interdisciplinary Ph.D.

Courses
ECON 100 Economics Explained Credits: 3
Everything you need to know about how the economy works and where it’s going. This course simplifies and clarifies the vocabularies and concepts used to describe all the important economic phenomenon in our society today: unemployment, trade deficits, government budget deficits or surpluses, inflation, investments, and customer debt. It describes where we’ve been (economically) and assess the future of the economic system we call capitalism.

ECON 100 - MOTR ECON 100: Introduction to Economics

ECON 150 Introduction To Labor Studies Credits: 3
This interdisciplinary course offered by The Institute for Labor Studies, covers the role of workers and the labor movement in society and the American political and economic system. Students will gain an overview, from a labor viewpoint, of the organization of work and workers, collective bargaining and representation, and labor’s rights, roles, and strategies in a democracy and in the global economy. A particular focus will be the image of the working class and organized labor in the media and among public perception.
ECON 201 Introduction To Economics I Credits: 3
Economics I deals primarily with macroeconomic or national economic concepts, the economics of the determination of recession, inflation, maintenance of full employment and economic growth, with an emphasis upon the economics of modern Keynesian analyses. It further introduces the economics of Marx and Ayres and discusses relevant and current economic issues. ECON 201 and ECON 202 are prerequisites for most other economics courses.

ECON 201P Introduction To Economics I Credits: 3
Economics I deals primarily with macroeconomic or national economic concepts, the economics of the determination of recession, inflation, maintenance of full employment and economic growth, with an emphasis upon the economics of modern Keynesian analyses. It further introduces the economics of Marx and Ayres and discusses relevant and current economic issues. ECON 201 and ECON 202 are prerequisites for most other economics courses.

ECON 202 Introduction To Economics II Credits: 3
Economics II deals primarily with microeconomics, firm analysis, the principles of demand, supply, elasticity, price determination, costs, income distribution, market structures, trade, and other related social, economic issues. ECON 201 and ECON 202 are prerequisites for most other economics courses.

ECON 202P Introduction To Economics II Credits: 3
Economics II deals primarily with microeconomics, firm analysis, the principles of demand, supply, elasticity, price determination, costs, income distribution, market structures, trade, and other related social, economic issues. ECON 201 and ECON 202 are prerequisites for most other economics courses.

ECON 300CM Cluster Course: Mexico, Central America And The Human Condition Credits: 3
Faculty from at least two different departments (one of which must be a department in the Division of Humanities, including History) may determine the topic and syllabus, subject to the approval of the director of Integrated Studies and the program's advisory committee in addition to the approval of the departments involved. This special topics course will satisfy the interdisciplinary course requirement for the B.A.

Prerequisites: ECON 201, ECON 202.

ECON 300CS Cluster Course Credits: 3
Faculty from at least two different departments (one of which must be a department in the Division of Humanities, including History) may determine the topic and syllabus, subject to the approval of the director of Integrated Studies and the program's advisory committee in addition to the approval of the departments involved. This special topics course will satisfy the interdisciplinary course requirement for the B.A.

Prerequisites: ECON 201, ECON 202.

ECON 301 Macroeconomic Analysis Credits: 3
This course provides more in-depth analysis of the macroeconomy. It examines the economic system as a whole and the ways in which its functioning is affected by the behavior of the interdependent sectors of which it is composed. It details the major factors affecting national income and the use of sectoral accounts in analyzing economic prospects and policies.

Prerequisites: ECON 201.

ECON 302 Microeconomic Analysis Credits: 3
This course provides in-depth analysis of the microeconomy. It examines the functioning of the individual enterprise and households. It specifically details problems confronting business enterprises operating under different types of market situations. It features analyses of the influence of the prices factors of production on methods of production and the effects that changes in income levels and in relative prices have on sales of different types of goods and services.

Prerequisites: ECON 202.

ECON 303H Special Issues In Economic Credits: 3
Readings and discussions of selected economic topics. Content varies over time as economic conditions change. Designed for outstanding students in Principles of Economics.

Prerequisites: ECON 201, ECON 202.

ECON 308 Challenges Facing The US Economy Credits: 3
This course provides an introduction to challenges facing the US economy, such as growing inequality and poverty in the midst of plenty, persistent unemployment in the central cities, the threat of recession or inflation, the problems and opportunities created by an aging society, implementation of welfare-to-work plans, and other topics of interest to students.

Prerequisites: ECON 201, ECON 202.
ECON 314 Race, Class And Gender: Theory, History, And Policy Credits: 3
Analyzes the ways in which race and gender discrimination result in differences in opportunities and outcomes in society. Begins with a historical overview of the origins of modern racism and patriarchy, and their relation to the rise and development of capitalism. Discursive and nondiscursive factors are investigated. Alternative theoretical approaches to understanding the intersections of race, class, and gender are evaluated. Policy debates on issues related to affirmative action, education, welfare, employment, and others are considered.
Prerequisites: ECON 201, ECON 202.

ECON 331 Money And Banking Credits: 3
A study of the structure, operations and problems of banks and other financial institutions with emphasis on their macroeconomic performance. The importance of banking in the financial system and the influence of Federal Reserve monetary policies are also studied.
Prerequisites: ECON 201, ECON 202.

ECON 331P Money And Banking Credits: 3
A study of the structure, operations and problems of banks and other financial institutions with emphasis on their macroeconomic performance. The importance of banking in the financial system and the influence of Federal Reserve monetary policies are also studied.
Prerequisites: ECON 201, ECON 202.

ECON 336 The Kansas City Economy Credits: 3
This course explores the Kansas City economy in depth from both a micro and macro perspective. The macro approach details how important the Kansas City economy is to the state of Missouri, to the US economy, and in the international arena. The micro approach details the contribution of the many different sectors of the KC area to the overall local economy.
Prerequisites: ECON 201 or ECON 202.

ECON 340 Collective Bargaining Credits: 3
This course involves a study of the economics and process of collective bargaining in the labor sphere, including contract negotiations, contract enforcement, and methods to resolve bargaining disputes. Both theoretical and applied issues in collective bargaining will be addressed. Students will participate in a contract bargaining simulation.

ECON 341 Union Leadership and Administration Credits: 3
This course focuses on the roles and challenges of union leadership in a changing environment. Topics include the union leaders’ role as a representative, organizer and educator as well as administrative responsibilities within the union and the relationship with enterprise management in both adversarial and participatory situations. Options for leadership styles and organizational models will be discussed and explored in both theory and practice. Leaders will develop their skills of motivation, speaking, strategic planning and managing complex campaigns and diverse organizations.

ECON 353 Financial Analysis And The Economy Credits: 3
This course examines techniques of financial evaluation used by individuals, corporate managers, and portfolio analysts. Focus of the course will be on the interaction of the mechanics of analytical methods and economic activity. Topics covered will include individual portfolio building, asset evaluation, and financial market theory.
Prerequisites: ECON 201 and ECON 202.

ECON 395A Economic Issues Credit: 1
ECON 395C The Economics Of Energy Credit: 1
ECON 395D Economic Issues Credit: 1

ECON 402 Labor and the Global Political Economy Credits: 3
This course will examine current issues, trends, and developments which are shaping labor in today’s global economy. Students will analyze the shifting balance of power between labor and capital, the role of government, and evaluate the strategic options for workers and unions operating in a global environment.

ECON 404R American Economic History Since 1865 Credits: 3
The course deals with the emergence of Industrial American since 1865. It covers the rise to dominance of the large modern corporation, the problem of economic and social instability and stability, the rise of trade associations, cartels, and government regulation in an unstable economy, and the evolution of American economic policy and national economic planning.
Prerequisites: ECON 201 and ECON 202.

ECON 404RR American Labor History Credits: 3
This course examines history of work and the working class in the U.S. from 1750 to the present. We will focus on the transformation of the workplace, the rise of the union movement, the nature of cultural and political organizations, workers’ relationships with other social groups, and the role played by gender, race, and ethnicity in uniting or dividing the working class.
Prerequisites: ECON 201 and ECON 202.

Cross Listings: HISTORY 366RR.
ECON 405 European Economic Systems Credits: 3
A general study of the economic systems of Germany, France, Sweden, the United Kingdom, Russia, and other countries: and the European Economic Union. The course will study the economic-business organization, economic and social policies, trade policies, and the on-going political, economic, and business changes within the area, and their relation to other areas of the world in terms of economics, business and trade.
Prerequisites: ECON 201, ECON 202.

ECON 406WI History Of Economic Thought Credits: 3
Analysis of basic concepts of economic thought, their historical sources and significance.
Prerequisites: RooWriter.

ECON 411 Geographic Information Systems (GIS) for Urban Economic Development Credits: 3
An advanced quantitative methods course featuring the application of Geographic Information Systems (GIS) to the problems of urban economic development. Surveys federal, state, and local geospatial and attribute data resources, including Census Bureau TIGER files, and provides training in geodatabase construction and management. Geospatial processing, editing, and address geocoding are also covered. Formal analytical methods (cartographic aesthetics and visualization, spatial analysis, exploratory data analysis, network analysis, crime analysis, etc.) are all applied in the context of the problematics of urban and regional economic development.
Prerequisites: GEOG 203 or UPD 203

ECON 412 International Trade And Development Credits: 3
This course emphasizes the global allocation of resources and distribution of income in the analysis of economic development and international trade. Major topics include various theories of economic development, comparative advantage, terms of trade, tariffs, quotas, economic integration and the use of trade to foster economic development.
Prerequisites: ECON 201, ECON 202.

ECON 416 Law And Economics Credits: 3
This course will examine the use of economic principles in the analysis and application of public and private law. Emphasis will be given to the efficiencies of laws in meeting social objectives, how laws can be modified to become more economically efficient, and the uses of economics in the actual practice of the law. Issues covered will include proofs of liability in antitrust, contracts and employment law using statistical and economic analysis, and the calculation of economic damages in commercial, employment and personal injury/death litigation. Graduate students will be assigned a specific research paper.
Prerequisites: ECON 201, ECON 202, ECON 302.

ECON 420 Environment, Resources And Economic Growth Credits: 3
This course focuses on the theory and policy issues involved in resource recreation and depletion; environmental destruction, preservation and recreation; and the interrelation of these problems of and prospects for economic growth.
Prerequisites: ECON 201, ECON 202.

ECON 421 Mathematical Economics Credits: 3
An introduction to mathematical methods as applied to the questions addressed by economists. The principal methods to be applied are matrix algebra and differential calculus in the context of optimization. Other topics may include integral calculus, differential equations, difference equations, or linear and non-linear programming.
Prerequisites: ECON 201, ECON 202, ECON 301, ECON 302 and MATH 210.

ECON 425 Intermediate Economic Statistics Credits: 3
An introduction to the empirical side of economics. Estimation theory and the properties of commonly used estimators are covered. Some of the more important topics dealt with are: multiple regression, heteroscedasticity and autocorrelation in regression analysis, analysis of variance and the use of qualitative variables in regression analysis. Hands-on work with computer software designed for econometrics is stressed. No experience with computers necessary.
Prerequisites: ECON 201, ECON 202, ECON 301, ECON 302 and STAT 235 (or its equivalent).

ECON 429 Environment, Resources And Economic Growth Credits: 3
This course focuses on the theory and policy issues involved in resource recreation and depletion; environmental destruction, preservation and recreation; and the interrelation of these problems of and prospects for economic growth.
Prerequisites: ECON 201, ECON 202.

ECON 431 Monetary Theory And Policy Credits: 3
A study of the nature and functions of money and the financial system, with emphasis on monetary theory and its application to current banking and financial problems. Recent contributions to monetary theory and current literature.
Prerequisites: ECON 201, ECON 202, ECON 301.

ECON 435 Public Finance Credits: 3
Problems of public and private sector decision making of revenue-expenditure policies and an examination of the actual legal, political and economic policies for revenues and expenditures of federal, state and local governments.
Prerequisites: ECON 201, ECON 202, ECON 302.
ECON 437 State And Local Government Finance Credits: 3
This course investigates the role, problems and relative importance of municipal governments in the United States. Such areas as the demand for public services, tax and expenditure policies, and intergovernmental fiscal relations will be explored in detail. Case studies of state and local governments will be introduced to emphasize the problems and proposed solutions arising in modern municipal governments.
Prerequisites: ECON 201, ECON 202, ECON 302.

ECON 438 Economic Policy Credits: 3
Analysis of the confluence of political and economic behavior, the economics of collective action.
Prerequisites: ECON 201, ECON 202, ECON 301 and ECON 302.

ECON 442 International Finance Credits: 3
This course emphasizes the global activity and balance of payments implications of government taxation, expenditure and monetary policies under various capital market conditions. Major topics include: exchange rates and the balance of payments; national income determination in an open economy; integrated and non-integrated capital markets; economic growth stabilization policies and the quest for global economic stability.
Prerequisites: ECON 201, ECON 202, ECON 301.

ECON 451 Institutional Economic Theory Credits: 3
Analysis of impact of modern philosophy and developments in social sciences on economic theory.
Prerequisites: ECON 201, ECON 202, ECON 301, ECON 302.

ECON 458 Urban Economics Credits: 3
An inquiry into the economics of location decisions and the influence of these on urban growth and on the real estate market; the evaluation of urban transportation and other public services; an examination of economic development of ghetto neighborhoods.
Prerequisites: ECON 202, ECON 302 (or equivalent).

ECON 460 Industrial Organization Credits: 3
Prerequisites: ECON 201, ECON 202, ECON 301, ECON 302.

ECON 475 Economics Institutions and Policies Credits: 3
This course focuses on the economic system analysis of labor market phenomena in the context of historical-institutional development and labor market policies, this course is offered winter semester only.
Prerequisites: ECON 201 and ECON 202.

ECON 486 Labor Economics Credits: 3
An examination of the theories of wage determination, the economic effects of wage determination upon the wage structure, the distribution of national income, employment, and an introduction to collective bargaining.
Prerequisites: ECON 201, ECON 202, ECON 302.

ECON 488 Radical Political Economy Credits: 3
This course will cover the ideas that constitute radical political economy. It will show how radical political economy can be used to examine current economics and social problems and will outline possible economic structures of utopian visions.
Prerequisites: ECON 201, ECON 202.

ECON 490 Readings In Economics Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the professor in any of the following fields: (a) economic theory, (b) history of economic thought, (c) labor economics, (d) urban economics, (e) monetary and fiscal policy and theory, (f) international economics, (g) economic development, (h) comparative economic systems, (i) public finance, (j) public policy toward business, (k) quantitative economics.
Prerequisites: ECON 201, ECON 202.

ECON 496 Practicum in Urban Economic Development Credits: 3
The Practicum in Urban Economic Development provides students with the opportunity to integrate and apply the knowledge and skills developed through previous coursework to real-world problems of urban economic development. Working on collaborative, service-learning projects in partnership with both community and metropolitan-level organizations, students will engage with the process of applied urban economic development in a team-structured context. Student teams will be each be responsible for one term project over the course of the semester. The course will culminate with the public presentation of project outcomes.
Prerequisites: ECON 336, ECON 458.

ECON 497 Internship Credits: 1-6
The course allows the student to participate in cognate, approved internships of a professional nature.
Prerequisites: The completion of 75 credit hours and undergraduate major or graduate student in Economics, ECON 201, ECON 202.
ECON 5501 Advanced Macroeconomic Analysis Credits: 3
Basic theoretical concepts of national income and statistical tools utilized in its measurement. Aggregate demand and supply as problems of economic dynamics. The course includes examination of the primary competing theoretical approaches: neoclassical, Keynesian, new classical, real business cycle, new Keynesian supply side, Austrian, and Post Keynesian. Topics covered include growth, money, labor markets consumption, investment, expectations formation, role of time and uncertainty, equilibrium and disequilibrium analysis, exchanges rates, international trade, and optimal currency areas. Policy implications of the various macroeconomic theories are explored.
**Prerequisites:** ECON 301 and ECON 302 (or equivalent).

ECON 5502 Advanced Microeconomic Analysis Credits: 3
The course first provides a critical survey of neoclassical microeconomic theory, including methodology, demand theory, production and cost theory, theory of competitive and non-competitive markets, distribution, welfare, and general equilibrium. It then introduces heterodox microeconomic theory, covering its historical origins, methodology, structural organization of economic activity, input-output models, flow of funds, agency and institutions, and the business enterprise.
**Prerequisites:** ECON 302, ECON 5521.

ECON 5503 Advanced Heterodox Economics Credits: 3
The course examines various theoretical approaches and topics, both historically and currently, that constitute heterodox economics. In particular the course deals in depth with the mathematical and economic properties of heterodox production and price models. After reviewing the mathematics of linear production-price models, the module will examine Leontief, Sraffian, and other heterodox price and production models.
**Prerequisites:** ECON 301, ECON 302, and MATH 210.

ECON 5504R American Economic History Since 1865 Credits: 3
The course deals with the emergence of Industrial America since 1865. It will cover the rise to dominance of the large modern corporation, with the problem of economic and social instability and stability, with the rise of trade associations, cartels, and government regulation in an unstable economy, and with the evolution of American economic policy and national economic planning.
**Cross Listings:** HISTORY 5566R.

ECON 5504RR American Labor History Credits: 3
This course examines the history of work and the working class in the U.S. from 1750 to the present. We will focus on the transformation of the workplace, the rise of the union movement, the nature of cultural and political organizations, workers’ relationships with other social groups, and the role played by gender, race, and ethnicity in uniting or dividing the working class.
**Prerequisites:** Graduate standing.
**Cross Listings:** HISTORY 5566RR.

ECON 5505 Advanced Comparative Economic Systems Credits: 3
Contents vary depending upon the instructor’s design for the course.
**Prerequisites:** ECON 301, ECON 302.

ECON 5506 Advanced History Of Economic Thought Credits: 3
This seminar uses issues raised in the reading of two ‘classic’ primary texts, Adam Smith’s An Inquiry into the Nature and Causes of the Wealth of Nations (1776) and John Maynard Keynes’s The General Theory of Employment, Interest and Money (1936), as points of departure for the examination of a series of topics in the history and development of economics and alternative paradigms in the discipline. These investigations will lead us to the study of a number of other seminal articles, representing alternative approaches in the field. Topics include competition, accumulation, path dependence and endogenous technical change, cumulative causation, the laws of return, money and credit, capital theory, and more.
**Prerequisites:** ECON 301, ECON 302.

ECON 5508 Controversial Issues In Recent Economic Literature Credits: 3
This course will focus on theoretical and policy-oriented controversies that have occurred in economic in the 20th century. The type of controversies covered include, but are not restricted to, money, unemployment, business cycles and economic growth, pricing and administered prices, capital controversy, labor theory of value controversy, and free trade vs. protectionism. While the course concentrates on recent debates, it identifies the origins of the modern disputes in earlier controversies. For each controversy, its real world importance and policy implications are discussed.

ECON 5511 Geographic Information Systems (GIS) for Urban Economic Development Credits: 3
An advanced quantitative methods course featuring the application of Geographic Information Systems (GIS) to the problems of urban economic development. Surveys federal, state, and local geospatial and attribute data resources, including Census Bureau TIGER files, and provides training in geodatabase construction and management. Geospatial processing, editing, and address geocoding are also covered. Formal analytical methods (cartographic aesthetics and visualization, spatial analysis, exploratory data analysis, network analysis, crime analysis, etc.) are all applied in the context of the problematics of urban and regional economic development.
**Prerequisites:** GEOG 203 or UPD 203.

ECON 5512 Advanced Economic Development Credits: 3
Contents vary depending upon the instructor’s design.
**Prerequisites:** ECON 301, ECON 302.
ECON 5513 Economic Cycles And Growth Credits: 3
A critical review and evaluation of economic analysis and the forces of economic fluctuation and growth; and analysis of statics, dynamics, monopolistic competition, the role of the interrelationships of the market structure and other institutional forces as they relate to fluctuations and growth. An emphasis will be made on the critical evaluation of recent literature in the field of economic analysis related to fluctuations, growth, statics, dynamics, market structure and the reinterpretation of economic fluctuations, growth, forecasting and overall economic behavior. An analysis of the technological, monetary, and fiscal policy implied by economic trends and growth will also be discussed.
Prerequisites: ECON 5501 or equivalent.

ECON 5516L Law And Economics Credits: 3
This course will examine the use of economic principles in the analysis and applications of public and private law. Emphasis will be given to the efficiencies of laws in meeting social objectives, how laws can be modified to become more economically efficient, and the uses of economics in the actual practice of the law. Issues covered will include proofs of liability in antitrust, contracts and employment law using statistical and economic analysis, and the calculation of economic damages in commercial, employment and personal injury/death litigation. Graduate students will be assigned a specific research paper.
Prerequisites: ECON 302.

ECON 5521 Mathematical Economics Credits: 3
An introduction to mathematical methods as applied to the questions addressed by economists. The principal methods to be applied are matrix algebra and differential calculus in the context of optimization. Other topics may include integral calculus, differential equations, difference equations or linear and nonlinear programming.
Prerequisites: ECON 301, ECON 302 and MATH 110 (or equivalent).

ECON 5525 Econometric Methods Credits: 3
Continuation of ECON 425. The major problems encountered in building and testing economic models are treated and alternative solutions to these problems are discussed. Major topics include corrections for heteroscedasticity and autocorrelation, maximum likelihood and BLUE estimation, simultaneous equations methods, probit and logit analysis and distributed lags. Other topics may include ARIMA or other series analytic methods, three stage least squares and dynamic multipliers or simulation. Work with econometric software is stressed. No programming experience necessary.
Prerequisites: ECON 425 (or equivalent) and ECON 5521.

ECON 5529 Readings In Quantitative Economics Credits: 3
Readings from the economic literature which stress advanced mathematical or econometric tools. A general subject matter is selected by the student with the consent of the instructor.
Prerequisites: ECON 5521, ECON 5525.

ECON 5531 Monetary Theory And Policy Credits: 3
A study of the nature and functions of money and the financial system, with emphasis on monetary theory and its application to current banking and financial problems; recent contributions to monetary theory and current literature.
Prerequisites: ECON 301.

ECON 5535 Theory Of Public Finance Credits: 3
An inquiry into the scope and nature of economics with emphasis on the nature of the public sector including a brief study of welfare criteria along with the study of ability to pay, benefit theory of taxation, and expenditure theories.

ECON 5537 State And Local Government Finance Credits: 3
This course investigates the role, problems and relative importance of municipal governments in the United States. Such areas as the demand for public services, tax and expenditure policies, and intergovernmental fiscal relations will be explored in detail. Case studies of state and local governments will be introduced to emphasize the problems and proposed solutions arising in modern municipal governments.
Prerequisites: ECON 302.

ECON 5538 Economic Policy Credits: 3
Analysis of the confluence of political and economic behavior, the economics of collective action.
Prerequisites: ECON 301 and ECON 302.

ECON 5540 Advanced International Trade Credits: 3
This course emphasizes the global allocation of resources and distribution of income under various commodity market conditions and government trade policies. Major topics include: comparative advantage; terms of trade; the distribution of gains and losses from trade; perfect vs. imperfect competition; tariffs, quotas and other barriers to trade; exchange rates and the balance of payments; preferential trading arrangements; international factor movements and multinational corporations.
Prerequisites: ECON 302 (or equivalent); graduate standing.

ECON 5542 Advanced International Finance Credits: 3
This course emphasizes the global activity and balance of payments implications of government taxation, expenditure and monetary policies under various capital market conditions. Major topics include: exchange rates and the balance of payments; national income determination in an open economy; integrated and non-integrated capital markets; economic growth, stabilization policies and the quest for global economic stability.
ECON 5548 Advanced Socialist Economic Systems Credits: 3
The course will deal with the theoretical analysis of socialist economic theory, Marxian and non-Marxian, and/or of socialist economics systems such as those of Eastern Europe, the Chinese mainland and elsewhere. The emphasis of the course will vary depending upon the instructor's design for the course.

**Prerequisites:** ECON 301 and ECON 302.

ECON 5550 Regional Economics Credits: 3
The economics of spatial relations, emphasizing basic location and land utilization theory and the role of transport will be considered at the micro-level. Keynesian and neoclassical growth theories and contemporary policy approaches to regional growth and decline are analyzed.

**Prerequisites:** ECON 302.

ECON 5551 Advanced Institutional Theory Credits: 3
Evolution, organization and allocation functions of the modern industrial economy. Contributions and limitations of conventional economic concepts. Philosophical and theoretical interpretations of the economy in light of modern developments in philosophy and social science.

**Prerequisites:** ECON 451.

ECON 5558 Advanced Urban Economics Credits: 3
The study of the city as a dynamic system of interrelated and interdependent markets. Significant markets in cities include land, housing, labor, transportation and public services.

ECON 5560 Industrial Organization Credits: 3

**Prerequisites:** ECON 301, ECON 302.

ECON 5575 Labor Economics, Institutions and Policies Credits: 3
This course focuses on the economic analysis of labor market phenomena in the context of historical-institutional development and on labor market policies. This course is offered winter semester only.

**Prerequisites:** ECON 201 and ECON 202.

ECON 5583 Racial Inequality & Public Policy Credits: 3
This course will provoke open debate and discourse about public policy responses to racial inequality. The emphasis is on stimulating participants to think about and to analyze critically the range of strategies offered for reducing racism and racial economic inequality.

ECON 5587 Human Resource Economics Credits: 3
An analysis of the factors determining the productivity of human resource: education, nutrition, job training and work environment. An analysis of work patterns, wage patterns, and the impact of automation. Graduate students will be assigned a specific research paper on a topic to be decided with the instructor.

**Prerequisites:** ECON 302.

**Cross Listings:** ECON 487.

ECON 5588 Advanced Political Economy Credits: 3
This course gives students a comprehensive introduction to the history and modern practice of political economy, with particular emphasis on Marxian and Classical political economy. Topics include: value theory, class theory, economic reproduction, economic crisis, the theory of history, and methodology.

ECON 5589 Graduate Seminar In Labor Economics Credits: 3
Content of seminar will vary from semester to semester depending upon the instructor's design for the course.

**Prerequisites:** ECON 486.

ECON 5590 Special Topics Credits: 1-3
Selected topics in theoretical and applied economics.

ECON 5590A Special Topics Credits: 1-3
ECON 5590B Special Topics Credits: 1-3
ECON 5590C Special Topics Credits: 1-3

ECON 5591 Research And Planning Seminar Credits: 3
The objective of this research seminar is to apply the quantitative techniques and theoretical constructs of economics to an urban-regional problem. Students are required to formulate and evaluate present economic models, and then complete a research project.

**Prerequisites:** ECON 5502 and ECON 5521.

ECON 5599 Research And Thesis Credits: 1-6
Directed specialized research.
ECON 5601 Colloquium In Advanced Macroeconomics Credits: 3
The course will deal with analyses of topics in Macroeconomic analysis and Macroeconomic policies and investigation of current literature in divers areas of Macroeconomic analysis. A written report(s) will be made upon the selected assignment(s).
Prerequisites: ECON 5501 or equivalent.

ECON 5602 Colloquium In Advanced Microeconomics Credits: 3
As a continuation of Economics 502, this course deals with the business enterprises-including production, costs, pricing, and investment-markets, market demand, market governance, general price-quantity models of the economy, microfoundations of the heterodox macroeconomics, and social welfare.
Prerequisites: ECON 5502.

ECON 5606 Colloquium on Advanced History of Economic Thought Credits: 3
The course examines advanced topics in history of economic thought.
Prerequisites: ECON 5506.

ECON 5608 Topics In Economic Theory Credits: 3
This course deals with advanced topics in Institutionalism, Post Keynesian, and other heterodox economic theory. May be repeated with different topic.

ECON 5616 History Of Economics In The 20th Century Credits: 3
The history of 20th century economics is concerned with a number of interdependent issues, including the institutional organization of economics at universities; the historical development of the structures and social networks that make-up the economic paradigms of neoclassical economics, Marxian economics, Post Keynesian economics, and other heterodox economics; and the role of institutional and state power to maintain the dominance of the neoclassical paradigm. The aim of the course is to introduce students to this institutional/organizational history.

ECON 5625 Colloquium In Econometrics Credits: 3
This course treats advanced topics in econometrics such as non-linear estimation techniques, model development, simultaneous equation estimation techniques, and simulation. Topics are developed from theoretical and application perspectives. Familiarity with personal computer is necessary.
Prerequisites: ECON 5501, ECON 5502, ECON 5521, ECON 5525, or equivalents.

ECON 5631 Colloquium on Monetary Theory and Policy Credits: 3
This course explores advanced monetary theory and policy, examining recent debates and current research practices, as well as classic articles on monetary theory and policy.
Prerequisites: ECON 5601 or ECON 5501 and ECON 5531.

ECON 5645 Financial Macroeconomics Credits: 3
This course will introduce the student to the central role of financial analysis in macroeconomic analysis and to theories of macroeconomics instability based on the integration of finance and macroeconomics. It will examine modern finance theory and modern approaches to financial analysis, paying particular attention to the contributions made by Fisher and Keynes.

ECON 5660 Evolution Of American Industrial Society Credits: 3
Drawing on economic and organizational theory, the course will concentrate on the evolution of American industrial technology, the American business enterprise, and the organization of American industries and markets since 1870.

ECON 5665 Colloquium In Advanced Health Economics Credits: 3
This course is designed as a seminar with a special emphasis on analysis of econometric methods to assess issues in health care. The topics are developed from a theoretical and applied perspective. Familiarity with personal computers is necessary. Special emphasis will be given in the selection of course topics to the interests and backgrounds of participants.
Prerequisites: ECON 5521, ECON 5525, ECON 5565, or equivalents.

ECON 5680 Teaching Methods And Course Design Credits: 3
This course is designed to prepare students for the challenge of teaching economics. Students will be taught how to write a syllabus; how to prepare for class; how to plan learning activities; how to become skillful in leading discussion; how to present an effective lecture; how to test and assess student learning; how to develop effective group projects; how to motivate their students for lifelong learning. Students will be required to design a course to be taught at the 200-, 300 or 400-level. The student will prepare a complete set of course materials, including a lecture outline, a list of require readings, useful handouts, course materials, including a lecture outline, a list of require readings, useful handouts, course assignments, exams, etc. The course should incorporate an interdisciplinary approach and should emphasize an “active learning” component, designed to promote a “rich learning experience.” The student will work closely with an appropriate member of the faculty.
Prerequisites: Must have completed/passed Comprehensive Exams.

ECON 5688 Colloquium On Political Economy Credits: 3
This course is designed as a seminar and will take into account theory and policy analysis from alternative perspectives. The topics covered will include philosophical foundations of contemporary theory and policy, the organization of production information and finance, resource and environment, wealth and income distribution, public and private policy and planning. Stress is placed on contemporary research and students are expected to become involved in research projects.
ECON 5690 Special Doctoral Readings In Economics Credits: 1-3
Special research topics in Economics at the Doctoral level.

ECON 5699 Doctoral Dissertation Credits: 1-12
Directed selected research for Economics in the interdisciplinary doctoral program.

ECON 5899 Required Graduate Enrollment Credit: 1
Bachelor of Arts: Economics

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

• Apply the theory and methods of the 'standard' approaches in both micro and macroeconomics given a variety of social and economic issues.
• Have a capacity for critical thinking and its role in challenging the 'standard' approach to economic problems.
• Demonstrate well-developed written and verbal communication skills.
• Demonstrate competency in a variety of qualitative and quantitative methods that will become part of their problem-solving toolkit.

Career Implications
The undergraduate degree in economics is excellent preparation for graduate study in economics and most other academic disciplines, as well as law and business. A degree in economics opens a wide range of career choices including teaching, government service, finance, banking and insurance. It is excellent preparation for a career in business, public administration and management.

Advising System
Students in the program should see the Economics website for more information about undergraduate advising.

Honor Society
The Zeta chapter of the Omicron Delta Epsilon International Honor Society in Economics is on campus. Information on this organization can be obtained from Ben Young. The society is open to all undergraduate students with at least 12 hours of economics and a 3.0 GPA in economics and related courses. Graduate students in economics with a 3.0 GPA also may join.

Special Awards and Scholarships
The Joe E. Brown Institutional Economics Award is given each year to an undergraduate or graduate student for outstanding academic performance in the study of institutional theory. The department also offers the Robert Greene Scholarship, Frank Wagner Scholarship, James Crew Scholarship, and the Karen Vorst Scholarship for undergraduates.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>Anchor I 1</td>
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<td>Anchor II 1</td>
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<tr>
<td>Anchor III 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
</tbody>
</table>
DISC 300  Discourse III: Civic and Community Engagement (Speech and Writing)  3
Focus A  3
Focus B (Satisfied in program requirements below)
Focus C (May be satisfied by the Constitution course requirement below)
Focus Elective (Satisfied in program requirements below)
'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits  21

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

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<tr>
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<td>3</td>
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<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
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<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
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<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
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<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
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</tbody>
</table>

Total Credits  3

1  Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

• Take an equivalent course from the list above at a regionally accredited institution.
• Earn credit for one of the above courses through AP, IB, or CLEP.
• Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
• Have a previous bachelors degree (or higher) from a regionally accredited institution.
• Have an Associate of Arts degree from a regionally accredited institution.
• Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
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<tr>
<td>ALEKS Math Placement</td>
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<tr>
<td>Arts and Humanities Division of CAS 1</td>
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<tr>
<td>Science and Math Division of CAS</td>
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<td>Laboratory Science Experience</td>
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<tr>
<td>MATH 110 or MATH 116 or MATH 120</td>
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<tr>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course; Satisfied in requirements below)</td>
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<tr>
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<tr>
<td>Precalculus</td>
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</table>

Total Credits  31
Major Requirements
This program requires a minimum of 36 hours and a maximum of 45 hours of courses in the department. A minimum 2.0 GPA in the major is required for graduation.

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

<table>
<thead>
<tr>
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<td><strong>Major Prerequisites</strong></td>
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<td>MATH 110</td>
<td>Precalculus Algebra</td>
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<td>STAT 235</td>
<td>Elementary Statistics</td>
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<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
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<tr>
<td>ECON 201</td>
<td>Introduction To Economics I (Focus B)</td>
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<td></td>
<td><strong>Major Electives</strong></td>
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<tr>
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<td><strong>Total Credits</strong></td>
<td>42</td>
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</tbody>
</table>

General Electives
Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

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<td><strong>General Electives</strong></td>
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<td></td>
<td><strong>Minimum GPA: 2.0</strong></td>
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<td><strong>Total Credit Hours: 120</strong></td>
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</table>

Money and Finance Emphasis

Student Learning Outcomes
Students graduating from this program will:

- Identify important issues related to money and finance from both a macro (broad policy questions) and micro (firm-specific questions) perspective.
- Determine what information is needed to evaluate the issues and identify/construct appropriate data sets and other information for analysis.
- Develop and use their problem-solving skills and be able to analyze specific issues in order to formulate a variety of solutions.
- Communicate their analyses effectively through written and oral presentations.
- Gain experience working in teams either in the classroom and/or on the job through an internship experience.

Program Requirements

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<td>Focus A</td>
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Focus Elective (Satisfied in program requirements below)

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<tr>
<td>or MATH 116</td>
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<td>31</td>
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Major Requirements

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.
Bachelor of Arts: Economics

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<tr>
<td>STAT 235</td>
<td>Elementary Statistics</td>
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<td></td>
<td><strong>Required Courses (from the basic Economics degree):</strong></td>
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</tr>
<tr>
<td>ECON 201</td>
<td>Introduction To Economics I (Focus B)</td>
<td>3</td>
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<td>ECON 202</td>
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<td>ECON 425</td>
<td>Intermediate Economic Statistics</td>
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<tr>
<td>ECON 451</td>
<td>Institutional Economic Theory</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Electives (choose from the following):</strong></td>
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<tr>
<td>ECON 331</td>
<td>Money And Banking</td>
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<td>ECON 353</td>
<td>Financial Analysis And The Economy</td>
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<td>ECON 406WI</td>
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<td>ECON 437</td>
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<tr>
<td>ECON 497</td>
<td>Internship</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 42

1 6 hours of electives may be selected from ACCTNG 210, ACCTNG 211, or any FIN course numbered 300 or above. Other electives are subject to the approval of the Undergraduate Advisor.

**General Electives**

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Electives</strong></td>
<td>23</td>
</tr>
</tbody>
</table>

**Minimum GPA: 2.0**

Total Credit Hours: 120

**Political Economy Emphasis**

**Student Learning Outcomes**

Students graduating from this program will:

- Explain, analyze, and critically evaluate different market structures.
- Analyze specific economic issues using different methodologies of both a quantitative and qualitative nature.
- Undertake independent research into an examination of an issue of current social concern.
- Assess the role of domestic and international institutions and norms in shaping economic outcomes.
- Address and critically evaluate policy proposals from different theoretical perspectives.
- Explain why different theoretical perspectives lead to different policy recommendations.
- Understand the relation between economic theory(ies) and the examination of at least two major social issues (race and/or gender, economic development, environmental concerns, etc.).
- Examine a specific issue from a standpoint that incorporates social and political concerns in the economic inquiry.
## Program Requirements

### Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A 1</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Focus B (Satisfied in program requirements below)

Focus C (May be satisfied by the Constitution course requirement below)

Focus Elective (Satisfied in program requirements below)

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits: 21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

### Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions."

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Choose one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td></td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) 1</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

### College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Arts and Humanities Division of CAS 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science and Math Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>
Major Requirements

This program requires a minimum of 36 hours and a maximum of 45 hours of courses in the department. A minimum 2.0 GPA in the major is required for graduation.

Related courses in anthropology, English, geography, philosophy, history, political science, psychology, sociology, accounting and computer programming are recommended to satisfy the College of Arts and Sciences requirements for graduation.

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course; Satisfied in requirements below)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Precalculus</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 201</td>
<td>Introduction To Economics I (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>ECON 202</td>
<td>Introduction To Economics II (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>ECON 301</td>
<td>Macroeconomic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ECON 302</td>
<td>Microeconomic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ECON 425</td>
<td>Intermediate Economic Statistics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 451</td>
<td>Institutional Economic Theory</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electives (choose 4 of the following)</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 312</td>
<td>Theory Of Economic Development</td>
</tr>
<tr>
<td>ECON 314</td>
<td>Race, Class And Gender: Theory, History, And Policy</td>
</tr>
<tr>
<td>ECON 395</td>
<td>Current Economic Issues</td>
</tr>
<tr>
<td>ECON 406WI</td>
<td>History Of Economic Thought</td>
</tr>
<tr>
<td>ECON 420</td>
<td>Environment, Resources And Economic Growth</td>
</tr>
<tr>
<td>ECON 438</td>
<td>Economic Policy</td>
</tr>
<tr>
<td>ECON 488</td>
<td>Radical Political Economy</td>
</tr>
<tr>
<td>ECON 497</td>
<td>Internship</td>
</tr>
</tbody>
</table>

2 electives at the 300-level or above (may be from outside the Department, but will be subject to approval by the Undergraduate Advisor). 6

Total Credits 42

General Electives

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>23</td>
</tr>
</tbody>
</table>

Urban Economic Development Emphasis

Student Learning Outcomes

Students graduating from this program will:

- Become familiar and conversant with the full range of private, public, and non-profit sector organizations and activities which contribute to the process of urban economic development.
• Develop comprehensive and advanced skills in spatial analysis and the operation of Geographic Information Systems (GIS) in the support of urban economic development.
• Learn and develop competency in the theory and methods of the field of Urban Economics.
• In collaborative partnerships with local organizations, students will demonstrate the ability to integrate and apply the knowledge and skills acquired in learning outcomes 1-3 to practical problems in urban economic development.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
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<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A 1</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Focus B (Satisfied in program requirements below)
Focus C (May be satisfied by the Constitution course requirement below)
Focus Elective (Satisfied in program requirements below)

‘Total credits’ in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

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</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) 1</td>
<td></td>
</tr>
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</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

• Take an equivalent course from the list above at a regionally accredited institution.
• Earn credit for one of the above courses through AP, IB, or CLEP.
• Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
• Have a previous bachelors degree (or higher) from a regionally accredited institution.
• Have an Associate of Arts degree from a regionally accredited institution.
• Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.
### Bachelor of Arts: Economics

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<tr>
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<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
<td>Arts and Humanities Division of CAS</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Science and Math Division of CAS</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Social and Behavioral Sciences Division of CAS</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Writing Intensive Course (300-level or above)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Foreign Language (3rd Semester Level)</td>
<td>9</td>
</tr>
<tr>
<td>Laboratory Science Experience</td>
<td>MATH 110 Precalculus Algebra (or any 200-level or above Math/Stat course; Satisfied in requirements below) or MATH 116 Mathematics For Liberal Arts or MATH 120 Precalculus</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits: 31

### Major Requirements

This program requires a minimum of 36 hours and a maximum of 45 hours of courses in the department. A minimum 2.0 GPA in the major is required for graduation.

Related courses in anthropology, English, geography, philosophy, history, political science, psychology, sociology, accounting and computer programming are recommended to satisfy the College of Arts and Sciences requirements for graduation.

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

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<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra</td>
<td>3</td>
</tr>
<tr>
<td>STAT 235</td>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 201</td>
<td>Introduction To Economics I (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>ECON 202</td>
<td>Introduction To Economics II (Focus B)</td>
<td>3</td>
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<td>Intermediate Economic Statistics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 451</td>
<td>Institutional Economic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON 336</td>
<td>The Kansas City Economy</td>
<td>3</td>
</tr>
<tr>
<td>ECON 411</td>
<td>Geographic Information Systems (GIS) for Urban Economic Development</td>
<td>3</td>
</tr>
<tr>
<td>ECON 458</td>
<td>Urban Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 496</td>
<td>Practicum in Urban Economic Development</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>2 electives at the 300-level or above (may be outside the department but are subject to approval by the Undergraduate Advisor)</td>
<td>6</td>
</tr>
</tbody>
</table>

Total Credits: 42

### General Electives

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>23</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0

Total Credit Hours: 120
Teacher Certification in Social Studies

Student Learning Outcomes

Upon graduating with a Teacher Certification in Social Studies:

- Students will be able to distinguish the attributes of a variety of economic theories and policies.
- Students will be able to use their economic knowledge to examine a wide variety of problems that are economic, social and/or political in nature, on both the micro and macro levels.
- Students will have knowledge of statistical methods that will become part of their problem-solving toolset.
- Students will become proficient writers through assignments in regular classes, as well as intensive-writing experiences in the capstone course.
- All students will have undertaken a research project in conjunction with a local community development corporation as part of an academic service learning assignment. In fact, there will be many opportunities to be actively engaged with the Kansas City community through our community service requirement in various courses.
- Students will be better problem solvers and better-informed citizens.

Certification as a middle school (grades 5-9) or secondary (grades 9-12) social studies teacher in either Kansas or Missouri requires that a student complete specific requirements in History, Political Science, Economics, Geography, Behavioral Sciences and the School of Education. A separate application for teacher education is required. For further information about the program, consult the School of Education (p. 1018) section of this catalog or contact the Education Student Services Office at (816) 235-2234.

Tools for Planning and Fulfilling Academic Requirements

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Minor in Economics

Student Learning Outcomes

Students graduating from this program will:

- Students will be able to distinguish the attributes of a variety of economic theories and policies.
- Students will be able to use their economic knowledge to examine a wide variety of problems that are economic, social and/or political in nature, on both the micro and macro levels.
- Students will become proficient writers through assignments in regular classes, as well as intensive-writing experiences in the capstone course.
- Students will be better problem solvers and better-informed citizens.

Program Requirements

The minor in economics is open to all students and consists of a minimum of 18 hours (six courses) in economics.

The courses are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 201</td>
<td>Introduction To Economics I</td>
<td>3</td>
</tr>
<tr>
<td>ECON 202</td>
<td>Introduction To Economics II</td>
<td>3</td>
</tr>
<tr>
<td>ECON Upper Level Electives</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

1 Twelve hours in 300/400-level courses must be approved by the economics Undergraduate Advisor. Students are encouraged to consider the Economics BA Emphasis Areas available when determining elective selection.

Students must maintain a 2.0 GPA within the minor coursework to be awarded the minor in Economics.
Undergraduate Certificate Program in Labor Studies

Student Learning Outcomes

Students graduating from this program will:

- Students will gain an understanding of the theoretical framework and distinct visions and goals of the labor movement in the United States historically and at present.
- Students will understand the strategic challenges working people and organized labor face today and faced in the past in the U.S. and in the global economy. They will develop ability to do critical analysis on strategy and tactics historically, through critical research on the global economy, and by developing the skills of strategic planning in a contemporary context.
- Students will develop skills in labor negotiation, in labor organizing and mobilization, and in union leadership all within the confines of law and practice.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 340</td>
<td>Collective Bargaining</td>
<td>3</td>
</tr>
<tr>
<td>ECON 341</td>
<td>Union Leadership and Administration</td>
<td>3</td>
</tr>
<tr>
<td>or A&amp;S 341</td>
<td>Union Leadership and Administration</td>
<td></td>
</tr>
<tr>
<td>ECON 402</td>
<td>Labor and the Global Political Economy</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 366RR</td>
<td>American Labor History</td>
<td>3</td>
</tr>
<tr>
<td>POL-SCI 360</td>
<td>Labor, Politics and Society</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 150</td>
<td>Introduction To Labor Studies</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 370</td>
<td>Labor Law</td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

Students take all six courses listed. They can take one or two 3-credit courses per semester. Classes alternate between Wednesday evenings and Saturdays (7 meetings per semester, 9am-4pm) and rotate to be available at all times on a three year rotation. At two classes a semester, a student can complete the program in 3 semesters.
Master of Arts: Economics

Career Implications

The master of arts in economics is designed as a preparation for further graduate training at the doctoral level and for professional positions in industry, business, government, teaching and research. Courses may be taken in areas other than economics with the approval of the graduate advisor.

Advising System

Students should consult with the graduate advisor, Erik Olsen, (816) 235-2405, olsenek@umkc.edu, to plan their graduate program of study.

Admission Requirements

Students may be admitted for graduate study in economics if they have a baccalaureate degree in economics from an accredited college or university with an overall grade-point average of at least 2.5 on the 4.0 scale (or the equivalent). Applicants whose undergraduate GPA is less than 2.5 may be considered for admission upon petition to the Graduate Admission Committee of the Department of Economics.

Students who have a baccalaureate degree with an overall undergraduate GPA of 2.5 or better and who did not major in economics may be admitted to the program upon consultation with the department’s graduate advisor and on demonstrating proficiency in the following areas:

- Intermediate Macroeconomic Analysis
- Intermediate Microeconomic Analysis
- Introductory Statistics

All students with less than a 2.5 (4.0 scale) GPA prior to admission shall be required to take the general Graduate Record Examinations (GRE) and obtain a score of 153 in verbal, a score of 144 in quantitative, and a score of 4.0 on the analytical portion or better.

International students who have studied less than two years (full time) in a U.S. academic program or a comparable program in an English-speaking country are required to have TOEFL score of 550 or above or 213 on the computer-based test.

Student Learning Outcomes

Students graduating from this program will:

- Have an advanced knowledge of the basic areas of the field.
- Be able to integrate their knowledge with critical thinking skills.
- Be able to articulate their knowledge, both orally and in writing.
- Be able to effectively research the literature of this field.

Degree Requirements

Thirty hours of graduate work are required for the M.A. in economics. The following required courses (15 hours) and their prerequisites are listed:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 5501</td>
<td>Advanced Macroeconomic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ECON 5502</td>
<td>Advanced Microeconomic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ECON 5521</td>
<td>Mathematical Economics $^{1,2}$</td>
<td>3</td>
</tr>
<tr>
<td>ECON 5525</td>
<td>Econometric Methods $^3$</td>
<td>3</td>
</tr>
<tr>
<td>ECON 5551</td>
<td>Advanced Institutional Theory $^4$</td>
<td>3</td>
</tr>
<tr>
<td>Additional hours of coursework $^5$</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

1. ECON 5521 is waived if students have completed ECON 421 or its equivalent. In the event students have not had ECON 421 they should take ECON 5521. Calculus is strongly recommended as a prerequisite for ECON 5521.
2. For students not entering in the fall semester, it is strongly recommended that ECON 5521 be taken at the first opportunity.
3. ECON 425 is required for all students who have not had it, or something very much like it. (See Professor Olsen)
4. ECON 451 is required for all students who have not had an approved substitute - see graduate advisor.
5. An additional 15 hours of coursework must be completed. Up to nine of these hours may be in selected 400-level courses in economics and related disciplines, upon consultation with the graduate adviser. Graduate credit toward the M.A. in economics is not given for courses at the 300 level. No more than 6 hours of ECON 5590, may be counted toward graduation.
Substitutions for the above prerequisites may be approved by the graduate advisor.

The prerequisites for graduate courses are very important and must be completed prior to enrollment in courses with prerequisites. Graduate students in economics must also comply with the general graduate academic regulations as found in the School of Graduate Academic Regulations and Information (https://catalog.umkc.edu/general-graduate-academic-regulations-information/general-graduate-academic-regulations) section of this catalog.

**Requirements for Retention**

Students are expected to maintain a high degree of academic excellence. Students must maintain a minimum 3.0 graduate grade-point average. A student who receives a grade of C+ or lower will receive an academic warning. Students who receive a grade of C or C- in two classes, or a grade of D + or lower in one class, will be dropped from the program. A 3.0 (B) must be earned in all undergraduate courses approved for graduate credit and in ECON 5590 and ECON 5599.

A student is required to fill out a "program of study" with the graduate advisor before the completion of 15 hours of coursework. At that time, the graduate committee will consider the student’s performance and make a recommendation with regard to retention of the student. After being approved by the College of Arts and Sciences graduate officer, the program of study is filed with the UMKC Records Office and may be amended upon consultation with the graduate advisor.

**Requirements for Graduation**

**Elective Courses Option**

Students are required to complete 15 hours beyond the required courses. Of these, 6 hours must be at the 5500 level. Economics 5591 and 5599 cannot be counted towards graduation requirements.

**Project Option**

Students are required to complete 15 hours beyond the required courses. Of these, 6 hours must be at the 5500-level or above. Students complete a supervised applied research project that counts as part of the 15 hours beyond the required courses. The number of hours for the project depends on its scope and is determined by the student and his/her project advisor. For more information about the project, see the Graduate Advisor. Depending on the scope of the project, students are required to take 3 to 6 hours from among the following courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 5591</td>
<td>Research And Planning Seminar (required)</td>
<td>3</td>
</tr>
<tr>
<td>ECON 5599</td>
<td>Research And Thesis ¹</td>
<td>1-6</td>
</tr>
</tbody>
</table>

¹ ECON 5591 prerequisite.
Interdisciplinary Ph.D.

The Department of Economics participates in the Interdisciplinary Ph.D. program.

For further information see School of Graduate Studies (p. 1185) section in this catalog, contact the Department of Economics, (816) 235-1314, or Peter Eaton Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=eaton), Interdisciplinary Ph.D. Coordinator, (816) 235-2832 or eatonp@umkc.edu
Bachelor of Arts / Master of Arts: Economics - Dual Degree Program

Student Learning Outcomes

Students graduating from this program will:

- Apply the theory and methods of the 'standard' approaches in both micro and macroeconomics given a variety of social and economic issues.
- Have a capacity for critical thinking and its role in challenging the 'standard' approach to economic problems.
- Demonstrate well-developed written and verbal communication skills.
- Demonstrate competency in a variety of qualitative and quantitative methods that will become part of their problem-solving toolkit.
- Have an advanced knowledge of the basic areas of the field.
- Be able to integrate their knowledge with critical thinking skills.
- Be able to articulate their knowledge, both orally and in writing.
- Be able to effectively research the literature of this field.

This program offers students the opportunity to fulfill the requirements of the BA and MA degrees in less time, and for less money, than the separate degree programs. Students earning a UMKC BA degree in Economics may count up to 9 credit-hours of 400-level undergraduate credit toward the MA degree. A student completing the requirements for the BA degree with 9 credit-hours of 400-level coursework (including ECON 425 and 451) can earn the MA degree with seven additional Economics courses (as specified below). For a full-time student this additional coursework can be completed in one year of study.

The requirements for this program are:

- Students must apply after completion of 60 hours toward their BA degree. Students must apply for the BA-MA option before applying for graduation with the BA degree.
- Student applications will be reviewed and approved or denied at the discretion of the MA Program Advisor in the Department of Economics.
- Students must pass a college-level calculus course before entering the program. MATH 206 Brief Calculus and Linear Algebra or an equivalent is recommended; MATH 210 Calculus I is also acceptable.

**BA-MA Requirements**

BA Component – see the requirements for the BA-Economics program (https://catalog.umkc.edu/colleges-schools/arts-sciences/academic-departments-programs/economics/bachelor-of-arts-economics).

**MA Component**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 425</td>
<td>Intermediate Economic Statistics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 451</td>
<td>Institutional Economic Theory</td>
<td>3</td>
</tr>
<tr>
<td>One ECON 400-Level Elective</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**Required MA Courses**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 5501</td>
<td>Advanced Macroeconomic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ECON 5502</td>
<td>Advanced Microeconomic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ECON 5521</td>
<td>Mathematical Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 5525</td>
<td>Econometric Methods</td>
<td>3</td>
</tr>
<tr>
<td>ECON 5551</td>
<td>Advanced Institutional Theory</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Graduate Economics Courses: Two Economics courses at the 5500 level or higher.
Department of English Language and Literature

Cockefair Hall, Room 106
5121 Rockhill Road
(816) 235-1305 or (816) 235-1307
Fax: (816) 235-1308
umkc-english@umkc.edu
http://cas.umkc.edu/english

Mailing Address
University of Missouri-Kansas City
Department of English Language and Literature
Cockefair Hall 106
5121 Rockhill Road
Kansas City, MO 64110-2499

Chair: Virginia Blanton
Associate Chair: Jennifer Phegley

Professors:
Hadara Bar-Nadav, Virginia Blanton, Michelle Boisseau, Joan F. Dean, Stephen Dilks, Jane Greer, Christie Hodgen, James McKusick, Jennifer Phegley, Jeffrey Rydborg-Cox

Associate Professors:
John Barton, Laurie Ellinghausen, Jennifer Frangos, Daniel Mahala, Michael Pritchett, Anthony Shiu, Jacqueline Wood

Assistant Professors:
Whitney Terrell

Associate Teaching Professors:
Crystal Gorham Doss

Associate Research Professors:
Robert Stewart

Full-time Lecturers:
Sheila Honig, Cynthia Jones

Professors Emeriti:
Robert M. Farnsworth, Moira Ferguson, Daniel F. Jaffe, James McKinley, David Ray, Lois Spatz, Thomas Stroik, Linda Voigts, David Weinglass, Robert Willson

Associate Professors Emeriti:
Ralph Berets, James A. Reeds, Jonas Spatz

Department Description
The Department of English Language and Literature offers programs of study that lead to the Bachelor of Arts, the Master of Arts, the Master of Fine Arts, and the Interdisciplinary Doctor of Philosophy degrees. In the undergraduate program, students may pursue a general English program, or they may select an emphasis in Classical, Medieval and Early Modern Literature; Language and Rhetoric; or Creative Writing. Four minors in English are offered: Creative Writing, Language and Literature; Manuscript, Print Culture, Editing; and Writing. Master’s in English students may focus their studies on Literature, or may select from two emphases: Language and Literature or Manuscript, Print Culture, and Editing. The M.F.A. in Creative Writing and Media Arts is an interdisciplinary program leading to a terminal degree. English is an academic discipline eligible for full participation in the University’s Interdisciplinary Ph.D. program.

The Department of English includes faculty who have a broad range of professional competence in the study of literature and language, and who are trained to teach courses in British and American literature, linguistics, American culture, film, creative writing, and composition. The department believes the study and teaching of literature and language to be an important means of preserving and vitalizing our humanistic tradition.

Publications
The Department of English and the College of Arts and Sciences publish New Letters, a continuation of The University Review, which for over 50 years published the works of new and distinguished writers. New Letters continues to provide a medium for the best imaginative writing available.
The Department of English sponsors the publication of *Number One*, a magazine of student poetry and fiction, and *The Sosland Journal*, a collection of award-winning student essays from the Ilus W. Davis contest.

BkMk Press, operated under the auspices of the College of Arts and Sciences and housed in the Department of English, publishes books of high-quality poetry and prose by professional writers.

**Related Information, Opportunities, and Conferences**
The Department of English sponsors undergraduate and graduate student conferences, a writers’ reading series, summer creative writing workshops, and annual contests in creative and expository writing. The Department offers additional scholarships for creative writers and students in literature, including the Diversity in English Scholarship for undergraduates. Graduate students are also eligible for the Farnsworth Fellowship. Interdisciplinary Ph.D. students can apply for the Ilus Davis Doctoral Teaching Fellowship. The Department also offers courses and an annual conference for English teachers as part of its continuing education function. Four student groups provide social and literary activities for majors and interested others: Undergraduate English Council, English Graduate Student Association, Graduate Students in Creative Writing, and Sigma Tau Delta (the international English honor society).

**Career Implications of the Undergraduate Degree**
The English major is recommended for students interested in a broad, general background in the humanities and in the skills of analysis, synthesis, and self-expression. It is excellent preparation for medicine, business, and law, as well as for further literary study in graduate school.

In addition to careers in education, writing, and editing, English majors with writing and editorial skills find that they are desirable candidates for positions in businesses where effective communication and written evaluation are required.

**Advising System**
All undergraduate English majors are assigned to the Director of Undergraduate Studies.

**Internships and Other Opportunities**
Through the resources of the metropolitan media and publishing houses, as well as the on-campus facilities of the national literary journal *New Letters*, the literary publisher BkMk Press, and the academic journal, *Eighteenth Century Theory & Interpretation*, students may gain experience in writing and editing. With the approval of the supervising faculty, as well as the Director of Undergraduate Studies, students may intern with these media for credit. In addition, a number of other on- and off-campus internships are available for writers and editors.

**Graduate Degrees**
The Department of English offers three graduate programs: the Master of Arts: English; the Master of Fine Arts: Creative Writing and Media Arts; and the Interdisciplinary Ph.D.

**Faculty**

*Hadara Bar-Nadav*<sup>2,3</sup> Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=bar-nadav); professor of English; B.A. (William Paterson College); M.A. (Montclair State University); Ph.D. (University of Nebraska-Lincoln).

*John C. Barton*<sup>2,3</sup> Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=barton); associate professor of English; B.A. (University of California-Berkeley); M.A., Ph.D. (University of California-Irvine).

*Ralph A. Berets* associate professor emeritus of English; B.A., M.A., Ph.D. (University of Michigan).

*Virginia Blanton*<sup>2,3</sup> Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=blanton); professor of English; B.A. (Southwestern College); M.A., Ph.D. (Binghamton University).

*Joan F. Dean*<sup>2,3</sup> Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=dean); curators’ distinguished teaching professor of English; A.B. (Canisius College); M.A., Ph.D. (Purdue University).

*Stephen Dilks*<sup>2,3</sup> Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=dilks); professor of English; B.A. (University of Stirling, Scotland); M.A., Ph.D. (Rutgers University).

*Crystal Gotham Doss* Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=doss); associate teaching professor in English; B.A. (William Jewell College); M.A. (University of Kansas); Ph.D. (University at Buffalo).

*Laurie Ellinghausen*<sup>2,3</sup> Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=ellinghausen); associate professor of English; B.A. (University of Houston); M.A. (Ohio State University); Ph.D. (University of California-Santa Barbara).

*Robert M. Farnsworth* professor emeritus of English; B.A. (University of Michigan); M.S. (University of Connecticut); Ph.D. (Tulane University).

*Moira Ferguson* professor emerita of English; B.A. (University of London, Birkbeck College); M.A., Ph.D. (University of Washington, Seattle).
Jennifer Frangos Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=frangos); associate professor of English; B.A. (Vassar College); M.A. (State University of New York-Buffalo), Ph.D. (State University of New York-Stony Brook).

Jane Greer Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=greer); professor of English; B.A. (Hanover College); M.A., Ph.D. (Ohio State University).

Christie Hodgen Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=hodgen); professor of English; B.A. (University of Virginia, Charlottesville); M.F.A. (Indiana University, Bloomington), Ph.D. (University of Missouri, Columbia).

Sheila Honig Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=honig); lecturer in English; B.A., M.A. (University of Missouri, Columbia).

Daniel Freeman Jaffe professor emeritus of English; B.A. (Rutgers University); M.A. (University of Michigan).

Cynthia Jones Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=jones); lecturer in English & Classics; B.A., M.A., Ph.D. (University of Missouri-Kansas City).

Daniel Mahala Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=mahala); associate professor of English; B.A. (State University of New York at Binghamton); M.A. (New York University), D.A. (State University of New York at Albany).

James C. McKinley Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=mckinley); professor emeritus of English; B.J., M.A., Ph.D. (University of Missouri, Columbia).

James McKusick Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=mckusick); professor of English; B.A. (Dartmouth College); M.A. (Yale University); M.Phil. (Yale University); Ph.D. (Yale University).

Jennifer Phegley Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=phegley); professor of English; B.A. (Southwest Texas State University); M.A., Ph.D. (Ohio State University).

Michael Pritchett Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=pritchett); associate professor of English; B.J. (University of Missouri, Columbia); M.F.A (Warren Wilson College).

David Ray professor emeritus of English; B.A., M.A. (University of Chicago).

James A. Reeds associate professor emeritus of English and linguistics; B.A., M.A. (University of Iowa); A.M., Ph.D. (University of Michigan).

Jeffrey A. Rydberg-Cox Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=rydberg-cox); curators' distinguished professor of English and classics; B.A. (Colorado College); M.A., Ph.D. (University of Chicago).

Anthony Shiu Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=shiu); associate professor of English; B.A. (Ohio University); M.A. (University of Vermont), Ph.D. (Michigan State University).

Robert Stewart Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=stewart); associate research professor of English and editor of New Letters; B.A. (University of Missouri-St. Louis), M.A. (University of Missouri-Kansas City).

Thomas Stroik Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=stroik); curators’ distinguished professor emeritus of English; B.A., M.A., Ph.D. (University of Wisconsin-Madison).

Whitney Terrell Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=terrell); assistant professor of English; B.A., (Princeton University); M.F.A. (University of Iowa).

Linda E. Voigts Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=voigts); curators' distinguished professor emerita of English; B.A. (William Jewell College); M.A. (University of Missouri-Kansas City); Ph.D. (University of Missouri, Columbia).

David H. Weinglass professor emeritus of English; B.A., M.A. (St. Catherine's College-University of Cambridge); Ph.D. (Kansas State University).

Robert F. Willson, Jr. Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=willson); professor emeritus of English; B.A. (Wayne State University); M.A., Ph.D. (University of Wisconsin).

Jacqueline Wood Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=wood); associate professor of English & Black Studies; B.A. (Ohio Wesleyan University); M.A. (Florida Atlantic University); Ph.D. (University of Florida).

1 Associate or Adjunct Graduate Faculty
2 Members of UMKC Graduate Faculty
3 Members of UMKC Doctoral Faculty
Undergraduate

Bachelor of Arts: English

To major in English is to devote oneself to the study of culture, past and present; to books, their readers, writers, and publishers; to critical thinking and the interpretation of what it means to be human; to language and the communication of ideas in both written and spoken form. An education in English allows for a command of the written and spoken word. It is this command that allows those that have pursued a degree in English to find success in a variety of arenas through their ability to persuade and interpret, clarify ideas, think independently and creatively, and their overall commitment to the cultural repository that an English degree offers.

Students who choose to major in English Literature and Language develop their abilities to read and analyze texts written in the English language. They study British and American literature of the past and present and learn to view texts through a variety of interpretive lenses. English majors also develop their abilities as flexible, effective writers, capable of moving among a variety of genres, including creative and expository writing.

Within the 36-credit hour program, English majors take a core set of courses, including survey courses on the history of British and American literature, a course devoted to Shakespeare, and courses in linguistics and rhetoric. Beyond this core, students may choose to emphasize in the study of literature, rhetoric, creative writing, or classical, medieval, and early modern literature. In their final year, all students select from a menu of capstone options, including a senior thesis (recommended for students interested in graduate school), a seminar on teaching writing (recommended for students seeking certification to teach in secondary schools), or one of many upper-level seminars.

Students majoring in English may also consider a minor in another area of English studies, provided that there be no more than 9 credit hours of overlap between the major/emphasis and the minor

Undergraduate Admission Requirements

Preparation

Transfer students should enter the English major with soundly developed writing and reading skills and a general familiarity with the major authors and literary movements of English and American literature. Transfer students should meet with the Director of Undergraduate Studies immediately upon admittance to discuss requirements and any possible transfer credits towards the major. With the approval of the Director of Undergraduate Studies, the Department accepts up to 18 hours of transfer credits in English for courses fulfilling major requirements.

Undergraduate Programs

Bachelor of Arts: English (p. 246)
Bachelor of Arts: English Creative Writing Emphasis (p. 252)
Bachelor of Arts: English Classical, Medieval, & Early Modern Literature Emphasis (p. 258)
Bachelor of Arts: English Language and Rhetoric Emphasis (p. 262)
Teacher Certification in English (p. 268)
Minor in Creative Writing (p. 269)
Minor in Language and Literature (p. 272)
Minor in Manuscript, Print Culture, and Editing (p. 274)
Minor in Writing (p. 276)

Graduate

Graduate Degrees:

- Master of Arts: English (p. 277)
- Master of Fine Arts: Creative Writing and Media Arts (p. 282)
- Interdisciplinary Ph.D. in English (p. 299)

Assistantships

The Department of English offers a limited number of Graduate Teaching Assistantships on a competitive basis. Applications for Graduate Teaching Assistantships are considered in January for the following fall semester. All Graduate Teaching Assistants are expected to enroll in at least six hours per semester. Graduate Teaching Assistantships may be awarded to students who demonstrate readiness to become teachers in first- and second-year writing courses. Graduate Teaching Assistants must undergo a pre-semester orientation and attend mentoring meetings twice monthly with the Director of Composition and fellow graduate teachers. First-semester GTAs are also required to complete successfully ENGLISH 5519.
Courses

ENGLISH 100B Basic Speaking and Listening for Non-Native Speakers Credits: 1-3
The study and practice of speaking and listening for survival-level social functions in English. Frequent exercises focus on the production of isolated words and phrases in areas of need, and on the development of survival level oral/aural skills for beginning ESL students. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 100C Basic Reading and Vocabulary for Non-Native Speakers Credits: 1-3
The study and practice of survival-level reading English vocabulary in context. Frequent exercises focus on basic reading comprehension related to familiar topics and situations, and the introduction of dictionary skills. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 100D Basic Writing for Non-Native Speakers Credits: 1-3
The study and practice of survival level writing skills including spelling, capitalization and some punctuation. Introduction of basic sentence structures and completion of simple standard forms of written English. Frequent exercises focus on survival level writing such as words and basic phrases in the present tense. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 100G Basic Grammar for Non-Native Speakers Credits: 1-3
The study and practice of survival level sentence structures and words. Frequent exercises focus on basic level sentences, questions, directions, and descriptions in the present tense that relate to students' immediate surroundings and some life skills areas. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 100S Special Topics in English as a Second Language Credits: 1-6
A course designed to address the specific needs of an individual student or group of students studying English as a Second Language. In addition to targeting English skills, the course may address topics or skills which are not covered in the standard Academic English curriculum of the Applied Language Institute. This course will accommodate individual students or groups of students studying at the Institute for periods of time other than the standard semester length. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 100T TOEFL Preparation Credits: 1-3
This course will prepare students to take the TOEFL (Test of English as a Foreign Language), in either the paper-based (PBT) or internet-based (iBT) form, and/or to improve their scores from previous attempts. Exercises focus on developing the skills and strategies necessary for navigating TOEFL questions while continuing to develop the general English language skills that support success on the TOEFL. The course will provide students with a personal awareness of strengths and weaknesses so they may focus their test preparation work in and outside of class. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 101B Academic Speaking and Listening for Non-Native Speakers I Credits: 1-3
The study and practice of speaking and listening for basic social functions in English. Exercises include the practice of basic descriptions and the development of oral/aural skills for beginning ESL students. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 101C Academic Reading and Vocabulary for Non-Native Speakers I Credits: 1-3
The study and practice of reading with basic English vocabulary in context. Exercises focus on reading comprehension, identifying the topics of short readings, and the introduction of basic dictionary skills. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 101D Academic Writing for Non-Native Speakers I Credits: 1-3
The study and practice of basic writing skills including handwriting, spelling, capitalization and punctuation. Frequent short exercises emphasize basic sentence structure, biographical description, and completion of standard forms. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 101G Academic Grammar for Non-Native Speakers I Credits: 1-3
The study and practical application of basic sentence structure and word parts. Frequent exercises emphasize use and understanding of simple sentences, questions, directions, and descriptions in the present and past tenses. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 102B Academic Speaking and Listening for Non-Native Speakers II Credits: 1-3
The study and practice of speech in environments such as the classroom, work, and simple social occasions. Exercises focus on student's ability to distinguish sounds and to produce them correctly in the context of a sentence and to listen for specific information. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 102C Academic Reading and Vocabulary for Non-Native Speakers II Credits: 1-3
The study and practice of reading narrative and expository texts and standard forms. Exercises focus on the development of vocabulary and introduction of reading techniques such as identification of topics and main ideas, skimming, scanning, prediction, and inference. This course carries no credit toward graduation in the College of Arts and Science.

ENGLISH 102D Academic Writing for Non-Native Speakers II Credits: 1-3
The study and practice of techniques for writing short paragraphs in English. Frequent exercises emphasize various forms of paragraph organization and the improvement of punctuation and mechanical skills in writing. This course carries no credit toward graduation in the College of Arts and Sciences.
ENGLISH 102G Academic Grammar for Non-Native Speakers II Credits: 1-3
The study and practical application of basic sentence structures, including future and irregular past tense constructions. Frequent exercises emphasize use and understanding of comparatives, questions, and compound nouns and verbs. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 103B Academic Speaking and Listening for Non-Native Speakers III Credits: 1-3
The study and practice of listening for and producing speech in the past, present and future tenses. Exercises introduce note-taking techniques and focus on the ability to hear and express abstract ideas. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 103C Academic Reading and Vocabulary for Non-Native Speakers III Credits: 1-3
The study and practice of longer reading passages of various rhetorical styles. Exercises focus on improvement of reading speed and the development of vocabulary and comprehension through complex inferences. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 103D Academic Writing for Non-Native Speakers III Credits: 1-3
The study and practice of writing multi-paragraph academic essays. Frequent exercises emphasize point-of-view, process writing, and a variety of rhetorical styles. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 103G Academic Grammar for Non-Native Speakers III Credits: 1-3
The study and practical application of complex sentence structures, including perfect and perfect progressive tenses. Frequent exercises emphasize use and understanding of passive voice, gerunds and infinitives, articles, conditionals, and modals. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 104B Academic Speaking and Listening for Non-Native Speakers IV Credits: 1-3
The study and practice of standard English, particularly in the college classroom. Exercises include training in academic lecture comprehension and note-taking as well as formal (classroom presentation) and informal (conversation) English speaking. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 104C Advanced Academic English Reading For Non-Native Speakers IV Credits: 1-3
This course focuses on preparing students to deal effectively with sophisticated academic reading materials by guiding them in the development of a conscious and reflective approach toward reading. It emphasizes advanced reading skills of interpretation, inference, critical analysis, evaluation and application. There will be frequent exercises addressing the acquisition and practice of study skills and collaborative academic work.

ENGLISH 104D Academic Writing for Non-Native Speakers IV Credits: 1-3
The study and practice of rhetorical principles in standard English prose. Frequent writing exercises emphasize critical thinking and research skills as well as fluency and accuracy in academic writing. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 104G Advanced Academic English Grammar For Non-Native Speakers IV Credits: 1-3
This course focuses on the analytical understanding and application of English grammar. Students will be expected to observe usage patterns of the English language in a combination of both normative and prescriptive grammars appropriate for academic English application. There will be frequent exercises emphasizing mastery of complex grammar structures including all verb tenses, dependent clauses, modals, and unreal conditionals, and of the relationship between ideas and the construction of sentences in academic discourse.

ENGLISH 105B Advanced Speaking and Listening Topics for Non-Native Speakers Credits: 1-3
This course focuses on developing high-level fluency in English listening and speaking through critical awareness of social language use. Students will work toward greater speaking and listening fluency and adaptability through the practice of skills involving purpose, audience, speech norms and context.

ENGLISH 105C Advanced Reading and Vocabulary Topics for Non-Native Speakers Credits: 1-3
In this course, advanced ESL readers will develop the core critical reading skills required for success in academics by examining and applying those skills in the context of authentic college-level readings representing a wide variety of genres and modes. Readings will include extensive college textbook passages, newspaper articles, opinion sections, academic essays and interpretive reading of literature.

ENGLISH 105D Advanced Writing Topics for Non-Native Speakers Credits: 1-3
This course engages advanced ESL and EFL writers to develop greater dexterity of expression in composition. In addition to reinforcing core rhetorical skills, grammar and writing mechanics, students will explore new rhetorical styles such as personal responses, autobiographical essays, and writing about literature. Extensive reading complements the writing discussion and practice with pieces including personal and academic essays, narrative, magazine journalism and fiction.

ENGLISH 105G Advanced Grammar Topics for Non-Native Speakers Credits: 1-3
In this course, students will pursue an in-depth comprehension of English grammar, with a strong focus on increasing fluency in the English language through a critical analysis of connotation and pragmatics and their role in language fluency. Contextual readings, film and native conversation passages will complement the grammar discussions and practice, engaging students to move beyond a literal understanding based on syntax and semantics to a more contextual awareness of English form and function.
ENGLISH 110 English I: Introduction To Academic Prose Credits: 3
This course introduces students to college-level reading, writing, and discourse analysis: it engages students in the analysis and creation of texts that reveal multiple perspectives about specific rhetorical situations and cultural issues. In addition to learning how to revise by analyzing their own writing, students will learn to edit their own work and use proper academic documentation.

ENGLISH 119 Myth and Literature Credits: 3
A study of classical myth including readings from Homer to Ovid, analysis of selected myths in later literature, art, and music, and a study of contemporary definitions and approaches to myth.

ENGLISH 120 Literary Monstrosities Credits: 3
This course explores representations of monsters in literature. Students are introduced to different ways of thinking about monstrosities from a range of cultural and historical perspectives, as well as through a variety of materials in order to approach this question from an interdisciplinary perspective.

ENGLISH 123 True Lives: Autobiographical Arts and Acts Credits: 3
This course explores life writing and other autobiographical practices. Students will read and analyze a variety of life writing forms and think critically about life writing in various cultural, historical, and social contexts. They will also examine autobiography as a form of self-expression, as an articulation of personal and social values, as a public art, and as a way to study human experience in different contexts. Genres may include memoir, autobiography, diaries, etc., at the discretion of the instructor.

ENGLISH 124 Writing About Literature Credits: 3
This course is designed to be taken either prior to or concurrent with a student's first literature course. It introduces students to literary criticism in its broadest, most generic sense, as a stylized response to reading. Students in the course will be introduced to different approaches to writing about literature, to methods of generating ideas, and focusing and developing a topic.

Prerequisites: ENGLISH 110.

ENGLISH 126 Popular Literature Credits: 3
This course is designed to help students develop a fuller understanding of the human condition by exploring a range of accessible, bestselling fiction and non-fiction from a variety of periods and places, historic and contemporary. The course may include popular stories, songs and ballads, the scripts of blockbuster plays and films, best-selling novels, and widely distributed nonfictional prose.

ENGLISH 130 Introduction to Human Language Credits: 3
This course examines the biological and cultural properties of human language and it provides a foundation for understanding the role language plays in personal lives, in social institutions, and in the literary arts.

ENGLISH 141 Women and Literary Culture/The Heroine in Literature Credits: 3
This course explores the role of the heroine in literature. Students will examine how the heroine is crafted by a variety of writers and think critically about the role of the heroine in various cultural, historical, and social contexts. Genres may include science fiction/fantasy, mystery, romance, etc. at the discretion of the instructor.

ENGLISH 200 Introduction To Undergraduate Study In English Credits: 3
An investigation of reading, writing, and research practices associated with studies in English. Students will learn about multiple forms, genres, and critical approaches, as well as encounter texts from various historical periods and places. Required of all English majors before enrolling in 400-level ENGLISH courses.

ENGLISH 203 Introduction to Journalism Credits: 3
Introduction to the styles and techniques of reporting and writing basic news through assignments in straight news, features and in-depth stories. Exposure to the history and principles of American journalism. Practical application in writing news and news feature articles.

ENGLISH 207 World Literature in English Credits: 3
This course helps students develop a fuller understanding of the human condition by exploring accessible literary texts in English by non Euro-American writers. The course provides historical, economic and political contexts and is designed for students who enjoy learning about global cultures by reading and discussing a diverse range of bestselling literature.

ENGLISH 207 - MOTR LITR 200: World Literature
ENGLISH 213 Introduction To Drama Credits: 2-3
Beginning with an intensive study of a few plays analyzed to elicit general principles, the course moves on to consider several representative examples of each of the major periods and types of Western drama, from the Greeks to the present.

ENGLISH 214 Introduction To Fiction Credits: 3
Students will be introduced to the study of fiction as a literary art form. Students will continue to develop their understanding of fiction-writing in preparation for more advanced courses in literature and creative writing. Coursework will focus on close reading of short and long forms of fiction selected from a range of literary periods and world literature. Students are expected to interpret and analyze various forms of fiction and write critically about the role of fiction as a form of cultural discourse.

ENGLISH 215 Introduction To Poetry Credits: 3
An introduction to the study of poetry for students desiring a basic course either to develop a greater appreciation of poetry or to prepare for more advanced courses in literature or creative writing. Class discussions will focus on close readings of poems and analysis of poetic techniques. Writing assignments will complement reading and class discussion and will enable students to develop their own critical and creative skills.

ENGLISH 216 The Craft of Creative Writing Credits: 3
This course introduces students to the key techniques that writers of imaginative literature use. Students will develop skills at writing and reading in multiple genres.
Prerequisites: DISC 100.

ENGLISH 225 English II: Intermediate Academic Prose Credits: 3
This course extends the work of ENGLISH 110 with an additional emphasis on research. Each section of ENGLISH 225 uses a combination of book-length and shorter texts on focus on specific historical and/or cultural issues. As they learn to participate in scholarly conversations, students will find and evaluate library and internet sources. As with ENGLISH 110, this course emphasizes revision, editing, and proper academic documentation. ENGLISH 225 or equivalent is a prerequisite for all 300 and 400 level ENGLISH courses.
Prerequisites: ENGLISH 110 and sophomore standing.

ENGLISH 241 Women And Literary Culture: Introduction Credits: 3
The course offers an introduction to women as producers and consumers of literature. Students will become acquainted with women writers, explore women's reading practices, and interrogate the issues that have surrounded women's participation in cultural arenas.

ENGLISH 242 Women Writing/Women Reading Credits: 3
This course investigates women as producers and consumers of literature. Students will become acquainted with diverse women writers, explore women's reading practices, and interrogate the cultural, historical, and social contexts that influence women's writing and reading.
Prerequisites: Anchor I and DISC 100.

ENGLISH 250 Introduction to Language Acquisition and Diversity Credits: 3
Investigation of the basic principles of first and second language acquisition. Topics addressed include language competency, socio-cultural factors in language, dialects, acquisitional principles, and language diversity. Students will take part in monitored classroom observations in public schools, and will critically analyze how the topics addressed in class apply to real life and to teaching situations.

ENGLISH 270 Writing Tutor Training Seminar Credits: 3
This course covers the basics of serving as a tutor for writers. Students acquire hands-on experience in consulting with writers at all stages of the writing process, including invention work, drafting, revising, documenting, and editing. Students will also become conversant in theories of peer tutoring and research on Writing Centers.
Prerequisites: ENGLISH 110.
ENGLISH 273 Science Fiction Credits: 3
This course focuses on a range of science fiction texts from a variety of periods and traditions. Students will examine the relationship between different types of science fiction from various periods and the related social, economic, and political contexts.
Prerequisites: DISC 100.

ENGLISH 278 Asian American Literature Credits: 3
This course examines literary and cultural texts produced by Asian Americans from the nineteenth century to the present. Texts will be drawn from a variety of genres and from several Asian American groups in order to examine how Asian American literature engages, challenges, revises, and reinvents American literary traditions. The course will identify and explore specific cultural and political issues that have shaped the writings, including trans-nationalism, immigration, racial identity, group identity, and community. Authors may include Carlos Bulosan, Maxine Hong Kingston, John Okada, Bienvenido Santos, and Hisaye Yamamoto.
Prerequisites: DISC 100.
Co-requisites: DISC 200.

ENGLISH 278 - MOTR LITR 105: Multicultural Literature

ENGLISH 300CB Women in the Ancient World Credits: 3
This course focuses on the history, representation, literature, social lives, and political roles of women in ancient civilization including Egypt, Mesopotamia, the Biblical World, Greece, and Rome. It integrates methodologies from history, art history and archaeology, literary studies, and women's studies.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 300CD American Social Film: Silver Screen & American Dream Credits: 3
This course will combine American social history and film history in the sound era. Using Hollywood entertainment films, the course will look at Hollywood as an indicator of social, political and economic conditions in the United States since the 1930s. The main topics are representations of the American dream and nightmare, poverty and affluence, success and failure. This course is offered as a cluster with HISTORY 400CP.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 300CE Radical Changes Since 1945 Credits: 3
This course will focus on modernism, post-modernism and expressionism in the visual arts and literature since World War II. Common lectures will address intellectual movements—such as existentialism and formalism—and cultural development—such as the increased impact of technology and mass media—in contemporary society. By focusing on these movements, the cluster course hopes to provide an integrated view of the literature and visual arts of the period and to draw upon analogous developments in contemporary architecture, music, philosophy and film.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 300CN Terrorism, Civil War And Trauma Credits: 3
This interdisciplinary course examines the modern experience of terrorism and civil war in the light of art, film, history, literature, and philosophy. It explores a number of traumatic events, historic and contemporary, challenging us to think about such contemporary issues as violence and identity formation, civil rights and state-sponsored terrorism, pacifism and patriotism, resistance and collaboration, fundamentalism and fascism, neo-colonialism and anti-imperialism.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 300CW Critical Issues in Women's & Gender Studies Credits: 3
This class is an interdisciplinary upper-level course that will examine critical issues in women's and gender studies by focusing on the intersections of gender, race, class, sexuality, and social context. Through their study of these intersections, students will be more sensitive to the impact of social structures on gender and the experiences of women and men.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 300CX Empire Credits: 3
This is an interdisciplinary, team-taught course designed to teach students ways to think about the complexities of human cultures, past and present, helping them examine how imperialism continues to shape contemporary understandings of personal, institutional, and cultural identities (both of selves and others). The course engages students in the analysis of global cultures with a focus on the economic, environmental, political and social consequences of specific imperial regimes and the ongoing impact of these regimes on particular groups that continue to live with the legacies of empire.
Prerequisites: ENGLISH 225 OR DISC 200.

ENGLISH 300CY Ancient World in Cinema Credits: 3
This course will explore the tradition of depicting the ancient Mediterranean world in film from the early silent era to the present. Topics to be covered include the ways that filmmakers respond to literary and historical sources from the ancient world, interact with the artistic tradition of films about the ancient world, the relation of these films to other works by the same creative personnel (directors, actors, writers, producers, etc.), and the political and cultural contexts in which the films were released.
ENGLISH 300F SS: Academic English/International Grad Teaching Assistants Credits: 3
The study and practice of standard spoken English combined with the study and practice of classroom teaching techniques. Exercises focusing on improvement of pronunciation, and formal (classroom presentation) and informal (conversation) English speaking are combined with techniques for lecture organization, strategies for clear content presentation, and with analysis of the American post-secondary educational culture. This course is designed for prospective International Graduate Teaching Assistants who need to improve their English communication skills and obtain an understanding of American educational culture.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 301WI Writing And The Academy Credits: 3
This course examines social and ethical issues raised by academic reading and writing. While some attention is paid to the formal aspects of academic prose within specific disciplines, the main emphasis of the course is on the cultural consequences of the different ways that academic knowledge is created and taught. In addition to studying the language and structure of academic reading and writing, the course explores the various rhetorics of the academy in terms of a broad range of subjects including economics, gender, education, history, and myth. This course satisfies the junior-level writing requirement and counts towards the writing minor.
Prerequisites: ENGLISH 110, ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 304WI Workplace Writing Credits: 3
This writing intensive course focuses on the rhetorical principles of workplace communication, providing students with opportunities to analyze complex rhetorical situations, to study various workplace genres, and to compose texts that meet the needs of diverse stakeholders.
Prerequisites: ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 305WI Theory And Practice Of Composition Credits: 3
A course in expository writing that will include reading on composition theory and the nature of literacy. Frequent short essays and a long paper.
Prerequisites: ENGLISH 110, ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 306WI Advanced Composition Credits: 3
Further study of writing for those who wish to continue the study beyond the two semesters of composition. Emphasis will be placed on translating critical thinking into effective writing. (NOTE: Students may not receive credit for more than one of the following: ENGLISH 305, ENGLISH 306, ENGLISH 403). Required of business and public administration majors.
Prerequisites: ENGLISH 110, ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 307WI Language, Literacy, Power Credits: 3
This course uses discourse analysis to investigate language and literacy. Students will explore how the discourses of institutional and cultural identities act as instruments of power and legitimacy.
Prerequisites: ENGLISH 110, ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 308 Rhetorics of New Media Credits: 3
This course will focus on the rhetorical study of new media texts (such as hypertext, networked multimedia, multimedia art and performance, virtual spaces, and so on) and theories of new media. The course will consider the rhetorical possibilities and constraints of new media and critically examine their impact on democratic discourse and literacy in the public sphere. Specialized knowledge of multimedia equipment and software is neither expected nor required.
Prerequisites: ENGLISH 110, ENGLISH 225 or DISC 200.

ENGLISH 309WI Rhetorics of Public Memory Credits: 3
This course explores how museums and other cultural institutions function as rhetorical agents in creating and preserving public memory. Students will explore how processes of collection, arrangement, and visual display operate as modes of persuasion and make arguments about civic identities and community values.
Prerequisites: ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 310 Introduction To Linguistics/Language Science Credits: 3
This course is a comprehensive introduction to the theory, methodology, and applications of the science of language. It examines properties of human language, covers all branches of language science, and provides a foundation for a critical understanding of language issues. Required for ENGLISH 470; recommended for ENGLISH 320 and ENGLISH 330.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 311 American Literature I Credits: 3
A survey of American literature and culture from its beginnings to 1865. This course will cover a range of authors, several genres, and culture forms, which may include fiction, poetry, drama, autobiography, oral, contact and/or slave narratives, folklore, and songs.
Prerequisites: ENGLISH 225 or DISC 200.
ENGLISH 312 Creative Writing I Fiction Credits: 3
A course centered on the short story. Emphasis is placed on three areas: general principles governing the writing of fiction; practice in short fiction (primarily the short story, but including the novella); criticism; and technical skills (including editing and rewriting).
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 313WI Reporting Credits: 3
A seminar of practical application in advanced reporting. Assignments to cover news events and to pursue in-depth news reports on the campus and off.
Prerequisites: COMM-ST 203 or ENGLISH 203; RooWriter.

ENGLISH 315 Creative Writing Poetry Credits: 3
Writing and rewriting poems, with discussion of techniques needed to produce desired effects. Analysis and evaluation of student work. Examination of technical means utilized in selected poems by accomplished poets.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 316WI Literary Nonfiction Credits: 3
Literary Nonfiction is a writing intensive course in the reading and writing of nonfiction prose as a literary art. We'll survey the historical development of literary nonfiction (especially the essay), sample contemporary authors of the genre, write critical commentary on works we read, and compose personal essays of our own. The course is not exclusively a literary seminar nor a creative writing workshop, but seeks to mix and make connections between these modes, in the tradition of the essay itself.
Prerequisites: ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 317 British Literature I Credits: 3
A survey of British Literature and culture from its beginnings to the 18th century, including works by Chaucer and Milton.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 317 - MOTR LITR 102: British Literature

ENGLISH 318 Bible As Literature Credits: 3
A critical study of the major portions of the Old and New Testaments and the Apocrypha, with special attention to the development of literature from oral tradition, the literary genres, themes and archetypes represented in the collection, and the diction and style which have influenced later literature. Consideration also of the relation of Biblical literature to the historical, religious, and cultural milieu of the ancient Near East.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 320 Structure Of English Credits: 3
Not a remedial grammar course. Methods of linguistic inquiry and grammatical description. Study of traditional and modern schools of syntax, especially transformational grammar. Practice describing the structure of sentences. Application to the teaching of grammar in high schools.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 321 American Literature II Credits: 3
A survey of American literature and culture from 1865 to the present. This course will cover a range of authors, several genres, and culture forms, which may include fiction, poetry, drama, autobiography, essay, lyrics, and film.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 321 - MOTR LITR 101: American Literature

ENGLISH 323 Shakespeare Credits: 3
An intensive critical study of William Shakespeare's writings in various contexts (historical, social, political, literary, contemporary, for example). Readings will encompass at least eight plays and will include at least one comedy, history, tragedy, and romance. Required of all English majors.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 325 Arthurian Legends Credits: 3
Focusing on writers such as Marie de France, Chretien de Troyes, Sir Thomas Malory, Alfred, Lord Tennyson, Sara Teasdale, Bernard Malamud, and Marion Zimmer Bradley, this course examines the legend of King Arthur and his Round Table as a recurring myth, repeatedly manifested in time through literature, art, history, music, and film.
Prerequisites: ENGLISH 225 or DISC 200.
ENGLISH 326 Modern And Contemporary Irish Literature Credits: 3
This course examines a range of texts written by Irish-born writers from the end of the nineteenth century on. While it is likely the course will include texts by the most famous Irish writers, such as Yeats, Joyce, Beckett, O'Brien, Heaney, and Friel, course materials will vary from semester to semester and may focus on a specific genre, historical period, or area of interest.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 327 British Literature II Credits: 3
A survey of British Literature and culture from the late 18th century to the present. This course will cover a range of authors and genres, including at least one novel.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 330 History Of The English Language Credits: 3
The study of English beginning with the Indo-European language family up to and including varieties of English spoken around the world today. Both outer history and the inner history of phonology, morphology, syntax, and lexicon will be addressed.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 331 African American Literature I Credits: 3
This course provides a survey of African American literature from its beginnings to the Harlem Renaissance of the 1920's and 1930's. Areas of interest will include abolitionist literature (especially Slave Narratives), turn-of-the-century literature and the Harlem Renaissance. This course will examine any or all of the following literary forms: fiction, poetry, drama, autobiography and essay. It will view African American literature in its historical and cultural contexts.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 332WI African American Novel Credits: 3
This course will examine the African American Novel in the 19th and 20th centuries. The novels will be examined in their historical and cultural contexts.
Prerequisites: ENGLISH 225 (or equivalent) or DISC 200, RooWriter.

ENGLISH 333 African American Literature II Credits: 3
A survey of African American literature from the end of the Harlem Renaissance to the present, covering a range of authors, texts, and contexts.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 336 Contemporary American Literature Credits: 3
This course focuses on contemporary American literature, concentrating on literary and cultural change. Topics, genres, and authors discussed will vary each semester.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 337 Introduction to American Literary and Cultural Studies Credits: 3
This course focuses on American literary and cultural production in an interdisciplinary manner. It explores how social, political, and economic conditions interact with the fields of art, film, history, and literature from colonial times to the present.

ENGLISH 339 Introduction to Screenwriting Credits: 3
An introduction to the form and language of the motion picture screenplays. Students create a blueprint for a movie and examine visual storytelling in-depth, including basic dramatic structure, scene and sequence construction and dialogue. Students will master the industry screenplay format, adapt a short story for the screen, and learn to receive feedback in small groups.
Prerequisites: DISC 200 or ENGLISH 225.

ENGLISH 340AWI Classical Literature in Translation Credits: 3
This course will focus on representative authors and works from the Greek and Roman Classical periods, such as Homer, Sophocles, Euripides, Aeschylus, Aristophanes, Plato, the Greek Lyrics, Virgil, Horace, Juvenal, Ovid and Plautus.
Prerequisites: RooWriter.
ENGLISH 342WI Women And Rhetoric Credits: 3
A study of the position of women within the traditions of western rhetoric. Students will examine the rhetorical practices of women as they pursue both public and private goals. Christine de Pizan, Sor Juana Ines de la Cruz, Hannah More, Maria Stewart, Frances Willard, Ida Wells-Barnett, Meridel Le Sueur, and Gloria Anzaldúa are among the female rhetorians who may be studied in this course.
Prerequisites: ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 344WI Women & Literary Culture: Genre Focus Credits: 3
A study of women writers that focuses on genre, i.e., texts that share a common set of conventions. The course will explore the conventions associated with a particular genre in various historical periods and consider the ways in which gender and genre intersect in shaping texts and their interpretation.
Prerequisites: ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 345WI Women And Literary Culture: Historical Focus Credits: 3
A study of women’s literary culture in a specific historical period either as broadly defined as Medieval or Renaissance or as narrowly defined as a decade or movement (e.g., 1960’s, abolitionist movement). This course includes women writers across multiple boundaries (e.g., national, generic, racial, sexual, socio-economic). Content will change depending on the instructor.
Prerequisites: ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 350 The 18th Century Novel Credits: 3
A detailed examination of the development of the novel in the 18th century. The course emphasizes the evolution of the novel from such predecessors as rogue literature, the picaresque story and the romance, due to changing social realities. The novelists studied may include Austen, Behn, Fielding, Godwin, Haywood, Richardson, Smollett, and Sterne.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 351 Special Readings Credits: 1-3
Readings in a period, genre or theme to be selected by the instructor with attention to the needs of students who are interested in literary topics not covered in regular offerings. Proposals for a course in such readings require the approval of the department.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 351A Special Readings: Detective Fiction Credits: 3
This course will focus on a specific period, sub-genre, or theme related to Detective fiction.
Prerequisites: Anchor II, DISC 200.

ENGLISH 355 The Novel Before 1900 Credits: 3
Intensive attention to novels in English written before 1900, which may include comparative or analytical studies of genre; critical reception of novels; serialization, gender issues; authors and editors; and valuation.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 356 Studies in Poetry Credits: 3
An intensive study of poetry through the examination of a specific topic or the works of particular poets, for instance: Love, Seduction, and Betrayal; Form and Change; Death, Grief, and Consolation; Whitman, Dickinson, and the Soul; Sacred Poetry, Poetry and Metaphysics; The Long Poem; The Comic Poem; Sonnet, Sonnet Sequence and the Lyric; The Voyage; Nature, Self, and the Romantic Poet.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 360 The Modern Novel Credits: 3
This course focuses on selected novelists between 1900 and 1945 and is organized around particular literary themes, sub-genres, or contemporary issues.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 365 Contemporary Novel Credits: 3
This course focuses on selected novelists since 1945 and is organized around particular literary themes, sub-genres, or contemporary issues.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 365WI Contemporary Novel Credits: 3
This course focuses on selected novelists since 1945 and is organized around particular literary themes, sub-genres, or contemporary issues.
Prerequisites: ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 367 Introduction to Latinx Literature Credits: 3
An introduction to the literary production by US Latinx, the course introduces students to writings by authors from various Latinidades—such as Chicana/Chicano, Puerto Rican, Chilean American, Cuban American, Dominican American, and Mexican American—in multiple genres, including poetry, fiction, drama, personal essay, and film.
Prerequisites: ENGLISH 225 or DISC 200.
ENGLISH 376 Concepts of the Hero in Ancient Literature and World Cinema Credits: 3
This course explores how concepts of heroism are related to the principles of values and civic duty in a wide range of ancient world cultures and contemporary world cinemas. Students will also demonstrate an understanding of how these values impact individual heroes and their interactions with others in their society.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 378 Asian American Literature Credits: 3
This course examines literary and cultural texts produced by Asian Americans from the nineteenth century to the present. Texts will be drawn from a variety of genres and from several Asian American groups in order to examine how Asian American literature engages, challenges, revises, and reinvents American literary traditions. The course will identify and explore specific cultural and political issues that have shaped the writings, including transnationalism, immigration, racial identity, group identity, and community. Authors may include Carlos Bulosan, Maxine Hong Kingston, John Okada, Bienvenido Santos, and Hisaye Yamamoto.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 404 Old English Credits: 3
This course is a study of Old English, its grammar, its poetic style, and its literature, both poetry and prose.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 405 Magazine Editing Credits: 3
A course combining academic study of editorial management, publishing operations and language skills, with "hands on" experience in article evaluation, editing, magazine production, and legal matters such as copyright and libel. Class work concentrates on authentic and effective language use, with attention given to copy editing, grammar, typography, printing processes, financing and distribution for commercial and small-press publications.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 408 Harlem Renaissance Credits: 3
This course examines the period from 1920 to 1940, known as the Harlem Renaissance, a time of unprecedented literary and cultural creativity by Black artists. This course explores a variety of cultural productions, not only traditional forms of literature such as novels, short stories, plays and poetry, but also nonliterary objects of study such as painting, sculpture, and music.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 410 Black Women Writers Credits: 3
This course explores the writings of African American Women Writers. The course examines how these writers have interacted with and often revised stereotypical representations of African American womanhood typically found within canonical and African American male literatures. The course will examine literature (which might include fiction, poetry, autobiography, and drama) of the nineteenth and twentieth centuries; the majority of the works will be by modern and contemporary authors such as Nella Larsen, Zora Neale Hurston, Toni Morrison, and Terry McMillan. By placing the works in this sort of cultural and historical context, it will be possible to examine the unique tradition of African American women's writing as well as individual texts.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 412 Chaucer Credits: 3
Readings from Chaucer's most important works, especially "The Canterbury Tales" and "Troilus and Criseyde" with emphasis on them as types of medieval genres and on the Middle English language.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 317.

ENGLISH 413 Renaissance Literature I Credits: 3
English literature from the time of Wyatt and Surrey to the beginning of the 17th century, including the works of Spenser, Marlowe, Sidney, Shakespeare and others.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 317.

ENGLISH 414 Milton Credits: 3
A study of Milton's prose and poetry, with special attention to "Paradise Lost".
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 317.

ENGLISH 415 Restoration And Early 18th-Century British Literature Credits: 3
British literature from the late 17th century to the mid 18th century. Selected writers may include Addison and Steele, Behn, Congreve, Defoe, Dryden, Finch, Milton, Pope, Rochester, Swift, and Wortley Montagu.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 317.

ENGLISH 416 The Romantic Period Credits: 3
An extensive study of selected writers (such as Austen, Barbauld, Byron, Coleridge, Hazlitt, Hemans, Keats, Gilpin, the Shelleys, Wollstonecraft, and Wordsworth) organized around literary themes and/or cultural issues important to the Romantic period.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 327.
ENGLISH 417 Modern Poetry Credits: 3
Study of works by modernist poets such as Hopkins, Yeats, Frost, Stevens, Williams, Moore, Pound, H.D., Eliot, Millay, Hughes.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 418 19th-Century American Literature Credits: 3
An intensive study of either selected major American writers in the 19th century or of 19th-century literary movements.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 311.

ENGLISH 422 Medieval Literature Credits: 3
Western religious and secular verse and prose to the 15th century. Late Middle English works are read in the original; all other selections in translation.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 317.

ENGLISH 423 Renaissance Literature II Credits: 3
English literature from 1600 to the beginning of the Restoration, including the works of Donne, Jonson, Milton and other contemporaries.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 317.

ENGLISH 425 18th-Century British Literature II Credits: 3
British literature in its critical and historical context from 1750 to 1798. The writers studied may include Blake, Burney, Collins, Johnson, and Gray.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 317.

ENGLISH 426 The Victorian Period Credits: 3
An intensive study of selected writers (such as Arnold, Braddon, the Brontes, the Brownings, Dickens, Darwin, Eliot, Gaskell, Hardy, Ruskin, and the Rossettis) organized around literary themes and/or cultural issues important to the Victorian period.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 327.

ENGLISH 427 Contemporary Poetry Credits: 3
Study of works by contemporary poets (post World War II), such as Auden, Bishop, Hayden, Berryman, Rukeyser, Larkin, Rich, Plath, Heaney, Boland, Komunyakaa.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 428 20th-Century American Literature Credits: 3
An intensive study of either selected major American writers in the 20th century or of 20th-century literary movements.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 321.

ENGLISH 429B Advanced Screenwriting Credits: 3
This course provides students with advanced theory in narrative screenwriting, training in industry standard script analysis (called "coverage") and story editing. Students will be required to draft, revise and workshop a short film screenplay or will focus on a feature screenplay, delivering a draft and revision of the first act and a detailed outline for the rest of the script. Students will workshop feature screenplays in small groups, emphasizing the art of constructive story editing.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 339 or COMM-ST 354.

ENGLISH 431 18th-Century British Literature Credits: 3
British literature from the mid to late 18th century. Selected writers may include Blake, Burney, Collins, Equiano, Fielding, Gray, Johnson, Sheridan, and Wollstonecraft.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 432WI Advanced Creative Writing Prose Credits: 3
A course for advanced students of fiction writing. Open to students who have taken English 312 or its equivalent. The class will proceed through analysis of models, discussion of general principles, critique of student work. Students will simultaneously be encouraged to experiment and to refine the form and subjects best suited to their talents. Emphasis will remain on the short story, though there may be units in other forms--novella, film script, the non-fiction essay.
Prerequisites: ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 433 Histories Of Writing, Reading, And Publishing Credits: 3
A study of selected topics concerning the material practices of writing, reading, and publishing within specific cultural and historical contexts. Issues examined may include authorship, education, information technologies, libraries, literacy, periodicals, popular literature, publishers, and communities of readers.
Prerequisites: ENGLISH 225 or DISC 200, one appropriate introductory course at the 300 level.

ENGLISH 434 Postcolonial Literature Credits: 3
An exploration of postcolonialism through the study of literary and theoretical texts created by or representing peoples whose historical experience has been decisively shaped by the experience or legacies of colonialism. Texts will be drawn from a variety of genres and from several countries. The course will consider several definitions of postcolonialism and related terms such as cosmopolitanism, hybridity, diaspora, and nationalism.
Prerequisites: ENGLISH 225 or DISC 200.
ENGLISH 435WI Advanced Creative Writing Poetry Credits: 3
An advanced poetry workshop that includes intensive reading of contemporary poetry and aims at each student creating a portfolio of publishable poems. The focus of the course will vary to address a variety of topics such as metaphor and closure; imitation and the line; form and voice. May be repeated once for credit.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 315, RooWriter.

ENGLISH 436WI Poetic Forms Credits: 3
An advanced creative writing course that focuses on intensive study of and practice in metrics and traditional and nonce forms. May be repeated once for credit.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 315, RooWriter.

ENGLISH 437WI Prose Forms Credits: 3
The making of a work of prose requires expertise with the structure of the chosen form, and an understanding of the relationship of form to content. This class teaches the techniques for planning and drafting major prose forms which could include the very-short story, the story, novella, novel, linked-story collection, episodic novel, essay novel, the play, the creative nonfiction book, and others. Students will learn how to create particular prose forms and how to use content as a guide to inventing new forms. We will examine some of the best examples of both traditional and newly invented forms by writers such as Anton Chekhov, Katherine Anne Porter, Tim O'Brien, and Sandra Cisneros.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 312, RooWriter.

ENGLISH 438 The "New Letters" Writing Conference Credits: 1-3
An intensive weekend conference for creative writers of varying genres and levels of experience, published and unpublished – fiction, poetry, nonfiction, stage and screen. The conference includes creative and interdisciplinary sessions on writing and publishing, genre-specific workshops, socializing and networking opportunities, and private manuscript consultations. The course of study for two- and three-credit students includes selected reading and post-weekend tutorial time conducted by accomplished, working writers. The conference may be repeated once for credit. Two- and three-credit students need the instructor’s consent and must have taken a 300-level creative-writing course in the focus genre prior to enrolling.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 439 Shakespeare and Film Credits: 3
Grounded in the close analysis of texts, this course examines film adaptations of Shakespeare’s plays across the range of dramatic genres (history plays, tragedy, comedy, and romance). This course is open to seniors and graduate students only. Graduate students will be responsible for supplemental critical readings.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 323.

ENGLISH 440 American Culture Credits: 3
Texts that offer perspectives on key historical themes of American culture. Texts may be grouped around any culturally significant principle (e.g. region, race, gender, class, ethnicity, religion) or theme (e.g. the mythology of the frontier, marriage and domesticity, the American Dream). The course may be taken twice for credit, provided substantive changes in topic.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 311 and ENGLISH 321.

ENGLISH 441 Girls And Print Culture Credits: 3
This course deals with girls’ relationships to the continually evolving print culture. Students will examine various literary representations of girlishness by adult writers, explore texts directed at girls (e.g., conduct books, periodicals, textbooks), and study the writing and reading practices of girls themselves.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 442 Playwriting I Credits: 3
Theory and practice of writing for the theatre with emphasis on the basic techniques.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 443 Playwriting II Credits: 3
Theory and practice of writing for the theatre with emphasis on advanced techniques.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 445 History And Principles Of Rhetoric Credits: 3
A study of selected writings of ancient, and modern rhetoricians illustrating key issues in the development of Western discourse theory and practice. Issues examined include the relationships between rhetoric and knowledge, orality and literacy, and rhetoric and poetics. Attention will also be given to the implications of rhetorical theory for modern language instruction.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 447 Theory and Criticism in English Studies Credits: 3
A survey of major schools and methods of literary theory and criticism. Authors and texts to be determined by the instructor of the course.
Prerequisites: ENGLISH 225 or DISC 200, junior or senior standing and six hours of literature.
ENGLISH 448 External Internship Credits: 1-3
Students may complete an external internship involving writing and editing with a publishing company, trade magazine, literary or academic journal, other print or electronic media organization, or with advertising, public relations, or non-profit firms. Internships are granted on a competitive basis. Students will compile a portfolio of their work under the direction of the internship supervisor to be submitted for evaluation to the department's internship coordinator.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 449A Publication Practicum Credits: 1-3
This course provides practical experience with New Letters magazine, New Letters on the Air, and BkMk Press in business analysis/reporting, copy-editing, manuscript evaluation, promotion/grant development, library research, market research, and other skills. The practicum is limited to three students per semester, to be chosen on the basis of demonstrated writing and organizational skills. References are required. May be taken for no more than three credit hours over a maximum of two semesters.
Prerequisites: ENGLISH 225 or DISC 200; Permission of the instructor.

ENGLISH 449B Publication Practicum Credits: 3
This course covers the basics of producing an issue of an academic journal. Students acquire hands-on experience at all stages of production.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 449C Publication Practicum Credits: 1-3
This course allows students to work with a faculty member on an ad hoc project for publication such as a special journal issue or festschrift, book manuscript, a new scholarly edition of a primary text, or a digital edition. Course may be repeated once for continued work on the same project.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 450 Special Readings Credits: 1-3
Intensive individual readings in a field, genre, or individual figure to be selected by a student or a group of students in consultation with an instructor willing to direct the project. Generally limited to graduating seniors who have completed the majority of the work for their major. Not open to students in their first semester at UMKC. May be repeated for credit.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 451 Shakespeare Comedies And Histories Credits: 3
A study of Shakespeare's major comedies and history plays with special emphasis on his dramatic works before 1600.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 317 and ENGLISH 323.

ENGLISH 452 Early English Drama Credits: 3
English religious and secular drama prior to Shakespeare. Mystery and morality plays are studied, with emphasis on their literary and social backgrounds. Close reading of such works as "Everyman," "The Wakefield Second Shepherd's Play," and "The Spanish Tragedy."
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 317 and ENGLISH 323.

ENGLISH 453 Modern Drama, 1880-1945 Credits: 3
A study of modern drama: Continental, British, and American, including history and development, critical theory, and literary evaluation. This course will focus on the earlier modern playwrights from Ibsen and Shaw, with special attention to naturalism.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 454 The Civil Rights Movement in African American Literature Credits: 3
This course examines how African American literature shaped ideas about freedom, rights, citizenship and race in the civil rights movement. It draws on a variety of literary forms-speeches, essays, autobiographies, fiction, drama, poetry and film-to explore the movement's impact on communities and cultures as well as its various debates and competing visions.
Prerequisites: ENGLISH 225 or DISC 200, completion of six hours of literature.

ENGLISH 455 Studies In The Novel 1740-1900 Credits: 3
An intensive study of no more than three major novelists of the eighteenth or nineteenth century. The content of the course will change, depending on the instructor.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 456 From Field Shout to Hip Hop: African American Poetic Traditions Credits: 3
This course examines the development of African American poetry from its early forms as field shouts, ballads, and blues to present forms including spoken word and hip hop. Includes authors such as Phillis Wheatley, Paul Lawrence Dunbar, Langston Hughes, Gwendolyn Brooks, Tupac Shakur, and Jessica Care Moore.

ENGLISH 457 Stages Toward Freedom: African American Dramatic Traditions Credits: 3
This course explores the development of African American dramatic traditions from the eighteenth century through the Harlem Renaissance Black Arts Movement, to current postmodernism. Includes authors such as W.W. Brown, Zoran N. Hurston, Amiri Baraka, Sonia Sanchez, August Wilson, Suzan-Lori Parks.
ENGLISH 458 Slave Narratives: Race, Gender, and Writing Freedom Credits: 3
A truly American, home grown genre and powerful force in the development of American political and social realities, the African American Slave Narrative is an established, recognized influence in the development of African American and American literary history. In this course you will have the opportunity to explore the historical trajectory of the Slave Narrative, looking at early formulations of its structure, purpose and conventions—especially in terms of gender and race, subsequent various permutations, and the eventual development of the Neo-slave Narrative as its resurrection, which adds to the complexity and theoretical impact of the literary autobiography from black perspectives.

ENGLISH 459 African American Migrations in Literature Credits: 3
The course examines representations of two different trajectories of migration in African American literature: African American journeys from the south to northern and mid-western regions of America, and concurrent migrations of Caribbean people to the US in the early twentieth century.

ENGLISH 460 Special Offerings Credits: 1-4
The visiting professor who gives this course determines what its content shall be. All aspects of literature and linguistics are within its possible range.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 461 Shakespeare Tragedies And Romances Credits: 3
A study of Shakespeare's major tragedies and late romances with special emphasis on his dramatic literature after 1600.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 317 and ENGLISH 323.

ENGLISH 462 Restoration And 18th-Century Drama Credits: 3
The drama after the restoration of the monarchy and the reopening of the theaters through the 18th century. Special emphasis is placed on the comedy of manners and the heroic drama in the Restoration and the sentimental comedy in the 18th century. Includes such playwrights as Dryden, Congreve, Etherege, Wycherley, Steele, Lillo, Cumberland, Sheridan, and Goldsmith.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 317.

ENGLISH 463 Contemporary Drama II Credits: 3
A study of contemporary drama: Continental, British, and American, including history and development, critical theory and literary evaluation. This course will focus on the more recent writers, including the absurdist, with special attention to experimental drama.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 464 Medieval Methods & Paleography Credits: 3
This course examines the methodology and historiography of Medieval Studies. Through an introduction to paleography, the study of medieval handwritings, it prepares students for advanced work in Medieval and Renaissance studies. Using an interdisciplinary approach, this course will examine the historical and cultural settings for medieval texts, their physical form and production, as well as the tradition of textual transmission in the medieval world. In addition to gaining familiarity with the many different types of primary sources, such as literary, artistic, legal and notarial sources, students will be exposed to methods for practical archival work in various European nations.
Prerequisites: ENGLISH 225 or DISC 200, First Year Latin.

ENGLISH 465 Studies In The Modern Novel Credits: 3
An intensive study of no more than three major 20th-century novelists. The content of the course will change, depending on the instructor.
Prerequisites: ENGLISH 225 or DISC 200, completion of six hours of literature.

ENGLISH 468 Women's Literature in Africa and the African Diaspora Credits: 3
This course is a comparative examination of the variety of literary works produced by women of African descent in the United States, the Caribbean and Africa. Students will explore the cross-cultural implications of texts in light of the intersections of gender, race and class.

ENGLISH 470 Introduction To Descriptive Linguistics Credits: 3
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 310.

ENGLISH 475 Creative Nonfiction Credits: 3
This course emphasizes the study and crafting of creative nonfiction. special attention is given to developing the writing techniques required to shape publishable narratives out of experience.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 312, ENGLISH 315, ENGLISH 316WI.

ENGLISH 499 Senior Tutorial Credits: 3
A comprehensive tutorial for students who have a faculty-approved research project. The project will culminate in a critical study of 20-25 pages or a creative writing portfolio of similar length. This course is appropriate for students who intend to continue their studies at the graduate level.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 5500 Graduate Study In English Credits: 3
An introduction to methods of research and scholarship related to English studies. The course uses a wide spectrum of print and digital materials, library facilities (including archives and Special Collections), databases, and other resources to explore English studies as an academic discipline and profession.
ENGLISH 5500P Special Topics Credits: 3
A course combining academic study of editorial management, publishing operations, and language skills, with "hands on" experience in article evaluation, editing, magazine production, and legal matters such as copyright and libel. Class work concentrates on authentic and effective language use, with attention given to copy editing, grammar, typography, printing processes, financing and distribution for commercial and small-press publications.

ENGLISH 5502 Magazine Nonfiction Credits: 3
This course emphasizes the origination and execution of nonfiction magazine articles for a variety of publications. Special attention is given to successful queries and the various writing techniques required for different kinds or articles. Students learn re-structuring and revision and the legalities affecting writers. Students are expected to complete three publishable articles.

ENGLISH 5503 Old English Credits: 3
This course is a study of Old English, its grammar, its poetic style, and its literature, both poetry and prose.

ENGLISH 5506 Modern Poetry Credits: 3
Study of works by modernist poets such as Hopkins, Yeats, Frost, Stevens, Williams, Moore, Pound, H.D., Eliot, Millay, Hughes. Students will make in class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5514 Milton Credits: 3
A study of Milton's prose and poetry, with special attention to "Paradise Lost". Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5515 Restoration And Early 18th-Century British Literature Credits: 3
British literature from the late 17th century to the mid-18th century. Selected writers may include Addison and Steele, Behn, Congreve, Defoe, Dryden, Finch, Pope, Rochester, Swift, and Wortley Montagu.

ENGLISH 5516 The Romantic Period Credits: 3
An extensive study of selected writers (such as Austen, Barbauld, Byron, Coleridge, Hazlitt, Hemans, Keats, Gilpin, the Shelleys, Wollstonecraft, and Wordsworth) organized around literary themes and/or cultural issues important to the Romantic period.

Prerequisites: ENGLISH 327.

ENGLISH 5517 Modern Poetry Credits: 3
Study of works by modernist poets such as Hopkins, Yeats, Frost, Stevens, Williams, Moore, Pound, H.D., Eliot, Millay, Hughes. Students will make in class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5518 19th-Century American Literature Credits: 3
An intensive study of either selected major American writers in the 19th century or of 19th-century literary movements. Students will make in class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5519 Teaching Writing: Theories, Histories, Contexts, Practices Credits: 3
This course focuses on issues related to the teaching of English at the high school and college levels, with an emphasis on the teaching of writing. Issues addressed may include assignment design, teaching invention and revision, response to and evaluation of writing, collaborative learning, relationships between reading and writing, classroom uses of electronic media, and institutional contexts within which teachers work. The course is required of Graduate Teaching Assistants in the UMKC Composition Program, to be taken either prior to or concurrently with their first semester of teaching. Secondary English teachers and others interested in English teaching are also welcome.

ENGLISH 5520 Greater Kansas City Writing Project Credits: 3
Studies in methods and objectives for the teaching of English with special attention to secondary school teaching. This course is repeatable for credit with advisor approval.
ENGLISH 5520A Greater Kansas City Writing Project Credits: 3
ENGLISH 5520B Greater Kansas City Writing Project Credits: 3
ENGLISH 5520D Greater Kansas City Writing Project Credits: 3

ENGLISH 5522 Medieval Literature Credits: 3
Western religious and secular verse and prose to the 15th century. Late Middle English works are read in the original; all other selections in translation. Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5523 Renaissance Literature II Credits: 3
English literature from 1600 to the beginning of the Restoration, including the works of Donne, Jonson, Milton, and other contemporaries. Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5526 The Victorian Period Credits: 3
An intensive study of selected writers (such as Arnold, Braddon, the Brontës, the Brownings, Dickens, Darwin, Eliot, Gaskell, Hardy, Ruskin, and the Rossettis) organized around literary themes and/or cultural issues important to the Victorian period.

Prerequisites: ENGLISH 327.

ENGLISH 5527 Contemporary Poetry Credits: 3
Study of works by contemporary poets (post-World War II), such as Auden, Bishop, Hayden, Berryman, Rukeyser, Larkin, Rich, Plath, Heaney, Boland, and Komunyakaa. Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5528 20th Century American Literature Credits: 3
Major American writers or literary movements of the 20th century. Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5529 Graduate Seminar: Screenwriting Credits: 3
A seminar on advanced theory in narrative screenwriting, script analysis and constructive story editing. Students draft, revise and workshop a short film script or a feature screenplay, and deliver a pitch, treatment, draft and revision of the first act and detailed outline of the whole script. Students workshop feature screenplays in small groups.

Prerequisites: ENGLISH 429B or COMM-ST 454.

Cross Listings: COMM-ST 354.

ENGLISH 5531 Late 18th-Century British Literature Credits: 3
British literature from the mid to late 18th century. Selected writers may include Blake, Burney, Collins, Equiano, Fielding, Gray, Johnson, Sheridan, and Wollstonecraft.

ENGLISH 5532 Advanced Creative Writing: Fiction Credits: 3
A course for advanced students of fiction writing. The class will proceed through analysis of models, discussion of general principles, and critique of student work. Students will simultaneously be encouraged to experiment and to refine the form and subjects best suited to their talents. Emphasis will remain on the short story, though there may be units in other forms—novella, film script, the non-fiction essay. May be repeated once for credit.

Prerequisites: Graduate Standing.

ENGLISH 5533 Histories Of Writing, Reading, And Publishing Credits: 3
A study of selected topics concerning the material practices of writing, reading, and publishing within specific cultural and historical contexts. Issues examined may include authorship, education, information technologies, libraries, literacy, periodicals, popular literature, publishers, and communities of readers.

ENGLISH 5534 Postcolonial Literature Credits: 3
An exploration of postcolonialism through the study of literary and theoretical texts created by or representing peoples whose historical experience has been decisively shaped by the experience or legacies of colonialism. Texts will be drawn from a variety of genres and from several countries. The course will consider several definitions of postcolonialism and related terms such as cosmopolitanism, hybridity, diaspora, and nationalism.

ENGLISH 5535 Advanced Creative Writing: Poetry Credits: 3
An advanced poetry workshop that includes intensive reading of contemporary poetry and aims at each student creating a portfolio of publishable poems. The focus of the course will vary to address a variety of topics such as metaphor and closure; imitation and the line; form and voice. May be repeated once for credit.

Prerequisites: Graduate Standing.

ENGLISH 5536 Poetic Forms Credits: 3
An advanced creative writing course that focuses on intensive study of and practice in metrics and traditional and nonce forms. May be repeated once for credit.

Prerequisites: ENGLISH 315 or equivalent.
ENGLISH 5537 Prose Forms Credits: 3
This course covers techniques for planning and drafting major prose forms. Students will learn how to use content as a guide to inventing new forms (i.e. novella, novel, linked-story collection, episodic novel, essay novel, and creative nonfiction book.
Prerequisites: ENGLISH 432WI, ENGLISH 435WI.

ENGLISH 5538 Women's Literature in Africa and the African Diaspora Credits: 3
This course is a comparative examination of the variety of literary works produced by women of African descent in the United States, the Caribbean and Africa. Students will explore the cross-cultural implications of texts in light of the intersections of gender, race and class.
Cross Listings: BLKS 5538.

ENGLISH 5540 American Culture Credits: 3
Texts that offer perspectives on key historical themes of American culture. Texts may be grouped around any culturally significant principle (e.g. region, race, gender, class, ethnicity, religion) or theme (e.g. the mythology of the frontier, marriage and domesticity, the American Dream). Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5541 Girls And Print Culture Credits: 3
This course deals with girls' relationships to the continually evolving print culture. Students will examine various literary representations of girhood by adult writers, explore texts directed at girls (e.g., conduct books, periodicals, textbooks), and study the writing and reading practices of girls themselves.

ENGLISH 5545 History And Principles Of Rhetoric Credits: 3
A study of selected writings of ancient and modern rhetoricians illustrating key issues in the development of Western discourse theory and practice. Issues examined include the relationships between rhetoric and knowledge, orality and literacy, and rhetoric and poetics. Attention will also be given to the implications of rhetorical theory for modern language instruction. Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5546 From Field Shout to Hip Hop: African American Poetic Traditions Credits: 3
This course examines the development of African American poetry from its early forms as field shouts, ballads, and blues to present forms including spoken word and hip hop. Includes authors such as Phillis Wheatley, Paul Lawrence Dunbar, Langston Hughes, Gwendolyn Brooks, Tupac Shakur, and Jessica Care Moore.

ENGLISH 5547 Theory and Criticism in English Studies Credits: 3
A survey of major schools and methods of literary theory and criticism. Authors and texts to be determined by the instructor of the course.

ENGLISH 5548 External Internship Credits: 1-3
Students may complete an external internship involving writing and editing with a publishing company, trade magazine, literary or academic journal, other print or electronic media organization, or with advertising, public relations, or non-profit firms. Internships are granted on a competitive basis. Students will compile a portfolio of their work under the direction of the internship supervisor to be submitted for evaluation to the department's internship coordinator.

ENGLISH 5549A Publication Practicum Credits: 1-3
This course provides practical experience with New Letters magazine, New Letters on the Air, and BkMk Press in business analysis/reporting, copy-editing, manuscript evaluation, promotion/grant development, library research, market research, and other skills. The practicum is limited to three students per semester, to be chosen on the basis of demonstrated writing and organizational skills. References are required. May be taken for no more than three credit hours over a maximum of two semesters. Permission of the instructors required.

ENGLISH 5549B Publication Practicum Credits: 1-3
This course covers the basics of producing an issue of an academic journal. Students acquire hands-on experience at all stages of production.

ENGLISH 5549C Publication Practicum Credits: 1-3
This course allows students to work with a faculty member on an ad hoc project for publication such as a special journal issue or festschrift, book manuscript, a new scholarly edition of a primary text, or a digital edition. Course may be repeated once for continued work on the same project.

ENGLISH 5550 Graduate Seminar Credits: 3
Authors, works and intellectual currents which form the basis of these seminars may vary from semester to semester, depending upon the instructor's design for the course. May be repeated for credit. Continued in ENGLISH 5555.
ENGLISH 5550A Graduate Seminar Medieval Literature I Credits: 3
ENGLISH 5550B Graduate Seminar Renaissance Literature I Credits: 3
ENGLISH 5550C Graduate Seminar Neo-Classical Literature I Credits: 3
ENGLISH 5550D Graduate Seminar 19th Century Literature I Credits: 3
ENGLISH 5550E Graduate Seminar American Literature I Credits: 3
ENGLISH 5550F Graduate Seminar Modern Literature I Credits: 3
ENGLISH 5550G Graduate Seminar Literary Criticism Credits: 3
ENGLISH 5550H Graduate Seminar Studies In Fiction I Credits: 3
ENGLISH 5550I Graduate Seminar In Dramatic Literature I Credits: 3
ENGLISH 5550J Graduate Seminar: History Of The English Language Credits: 3
ENGLISH 5550K Graduate Seminar: Creative Writing Prose Credits: 3
ENGLISH 5550M Graduate Seminar In Rhetoric And Composition Credits: 3
ENGLISH 5550MA Greater Kansas City Writing Project: Invitational Credits: 3
ENGLISH 5550MC Greater K.C. Writing Project: Writing & The Teaching Of Literature Credits: 3
ENGLISH 5550MD Greater Kc Writing Project: Critical Thinking & Process Writing Credits: 3
ENGLISH 5550ME Greater K.C. Wrtg Project: Researching The Theories Of Tchng Wrtng Credits: 3
ENGLISH 5550N Graduate Seminar: Criticism Credits: 3
ENGLISH 5550P Graduate Seminar: Sociolinguistics And Dialectology Credits: 3
Seminar focusing on the role of social factors in language use, and on the origin and development of regional and urban dialects in English. Special attention will be paid to sociolinguistic motivations for change, variation and merger in dialects and languages in contact, and Black English.
ENGLISH 5551 Shakespeare Comedies And Histories Credits: 3
A study of Shakespeare's major comedies and history plays with special emphasis on his dramatic works before 1600. Students will make in-class presentations and submit papers requiring research and bibliographical work.
ENGLISH 5552 Early English Drama Credits: 3
English religious and secular drama prior to Shakespeare. Mystery and morality plays are studied with emphasis on their literary and social backgrounds. Close readings of such works as "Everyman," "The Wakefield Second Shepherd's Play," and "The Spanish Tragedy." Students will make in-class presentations and submit papers requiring research and bibliographical work.
ENGLISH 5553 Modern Drama 1880-1945 Credits: 3
A study of modern drama: Continental, British, and American, including history and development, critical theory, and literary evaluation. This course will focus on the earlier modern playwrights from Ibsen to Shaw, with special attention to naturalism. Students will make in-class presentations and submit papers requiring research and bibliographical work.
ENGLISH 5554 The Civil Rights Movement in African American Literature Credits: 3
This course examines how African American literature shaped ideas about freedom, rights, citizenship and race in the civil rights movement. It draws on a variety of literary forms-speeches, essays, autobiographies, fiction, drama, poetry and film-to explore the movement's impact on communities and cultures as well as its various debates and competing visions.
ENGLISH 5555 Graduate Seminar Credits: 3
Graduate Seminar - second half.
Prerequisites: ENGLISH 5550.
ENGLISH 5555A Graduate Seminar Medieval Literature II Credits: 3
ENGLISH 5555B Graduate Seminar Renaissance Literature II Credits: 3
ENGLISH 5555C Graduate Seminar Neo-Classical Literature I Credits: 3
ENGLISH 5555D Graduate Seminar In 19th-Century Literature II Credits: 3
ENGLISH 5555E Graduate Seminar American Literature II Credits: 3
ENGLISH 5555F Graduate Seminar In Modern Literature II Credits: 3
ENGLISH 5555G Graduate Seminar Literary Criticism Credits: 3
ENGLISH 5555H Graduate Seminar In Chemical Literature II Credits: 3
ENGLISH 5555I Graduate Seminar In Dramatic Literature II Credits: 3
ENGLISH 5555J Graduate Seminar In Creative Writing: Poetry Credits: 3
ENGLISH 5555K Graduate Seminar In Composition Credits: 3
ENGLISH 5555M Graduate Seminar: Prose Fiction Credits: 3
ENGLISH 5555N Graduate Seminar: Composition Credits: 3
ENGLISH 5556 Studies In The Novel 1740-1900 Credits: 3
An intensive study of no more than three major novelists of the eighteenth or nineteenth century. The content of the course will change, depending on the instructor. Students will make in-class presentations and submit papers requiring research and bibliographical work.
ENGLISH 5557 Stages toward Freedom: African American Dramatic Traditions Credits: 3
This course explores the development of African American dramatic traditions from the eighteenth century through the Harlem Renaissance, Black Arts Movement, to current postmodernism. Includes authors such as W.W. Brown, Zora N. Hurston, Amiri Baraka, Sonia Sanchez, August Wilson, Suzan-Lori Parks.
ENGLISH 5558 Slave Narratives: Race, Gender and Writing Freedom Credits: 3
A truly American, home grown genre and powerful force in the development of American political and social realities, the African American Slave Narrative is an established, recognized influence in the development of African American and American literary history. In this course you will have the opportunity to explore the historical trajectory of the Slave Narrative, looking at early formulations of its structure, purpose and conventions—especially in terms of gender and race, subsequent various permutations, and the eventual development of the Neo-slave Narrative as its resurrection, which adds to the complexity and theoretical impact of the literary autobiography from black perspectives.
ENGLISH 5559 African American Migrations in Literature Credits: 3
The course examines representations of two different trajectories of migration in African American literature: African American journeys from the south to northern and mid-western regions of America, and concurrent migrations of Caribbean people to the US in the early twentieth century.
ENGLISH 5560 Special Topics Credits: 1-4
The professor who gives this course determines what its content shall be. All aspects of English studies are within its possible range.
ENGLISH 5561 Shakespeare: Tragedies And Romances Credits: 3
A study of Shakespeare's major tragedies and late romances with special emphasis on his dramatic literature after 1600. Students will make in-class presentations and submit papers requiring research and bibliographical work.
ENGLISH 5562 Restoration And 18th-Century Drama Credits: 3
The drama after the restoration of the monarchy and the reopening of the theatres through the 18th century. Special emphasis is placed on the comedy of manners and the heroic drama in the Restoration and the sentimental comedy in the 18th-century. Includes such playwrights as Dryden, Congreve, Etheredge, Wycherley, Steele, Lillo, Cumberland, Sheridan, and Goldsmith. Students will make in-class presentations and submit papers requiring research and bibliographical work.
ENGLISH 5563 Contemporary Drama Credits: 3
A study of contemporary drama: Continental, British, and American, including history and development, critical theory and literary evaluation. This course will focus on the more recent writers, including the absurdist, with special attention to experimental drama. Students will make in-class presentations and submit papers requiring research and bibliographical work.
ENGLISH 5564 Medieval Methods & Paleography Credits: 3
This course examines the methodology and historiography of Medieval Studies. Through an introduction to paleography, the study of medieval handwritings, it prepares students for advanced work in Medieval and Renaissance studies. Using an interdisciplinary approach, this course will examine the historical and cultural settings for medieval texts, their physical form and production, as well as the tradition of textural transmission in the medieval world. In addition to gaining familiarity with the many different types of primary sources, such as literary, artistic, legal, and notarial sources, students will be exposed to methods for practical archival work in various European nations.
Prerequisites: First Year Latin.
Cross Listings: HISTORY 5583.
ENGLISH 5565 Studies In Modern Novel Credits: 3
An intensive study of no more than three major 20th-century novelists. The content of the course will change depending on the instructor. Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5566CA Cluster Course: Images Of The Human Body In The Renaissance Credits: 3
Focusing on Renaissance conceptions of the human body, this cluster treats the following topics as they are reflected in Renaissance literature, art, astrology, astronomy, biology, anatomy, medicine, and politics: A) The dignity of the human body B) Microcosm and macrocosm. C) The human body and the heavens D) Stranger manifestations: freaks and beasts E) The humors F) Disorders of the human body G) The body politic H) The human body as an object of study.

ENGLISH 5566CF Courts And Culture In The Middle Ages Credits: 3
This cluster course offers an interdisciplinary approach to the study of the Middle Ages, focusing on medieval cultures in Europe. Arranged around a series of themes, the cluster will read a variety of documentary and literary texts to investigate not only the "high culture" of the courts but also the interactions of people from various social backgrounds in Western Europe.

ENGLISH 5575 Advanced Creative Writing: Creative Nonfiction Credits: 3
This course is devoted to the study and crafting of the personal essay. Students will explore - and practice many different varieties of this diverse form. Whether in the guise of aesthetic appreciation, cultural critique, personal history, political reportage, or travelogue, our course readings are first and foremost PERSONAL narratives, both troubled and enriched by their subjectivity (the essay's 'I'). Students will study the many challenges particular to this form (most of which concern notions of truth, and its rendering) and strive to overcome them as they create vivid personal narratives of their own.

ENGLISH 5582 European Literature: 18th Century Credits: 3
The 18th-century course will focus on a representative sampling from authors such as Corneille, Racine, Moliere, Voltaire, Prevost, La Bruyere, La Rochefoucauld, Montesquieu, Diderot, Rousseau, Schiller, Goethe, and Grimmelshausen. Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5591 Research In Selected Fields Credits: 1-3
Individual study under the direction of a senior member of the department, leading to the writing of a formal or scholarly paper. May be repeated for credit.

ENGLISH 5598A MFA Thesis Credits: 3-6
Under the guidance of a graduate MFA faculty member, students completing the MFA must complete and orally defend a publishable or producible manuscript. May be repeated for a maximum of six hours credit.

ENGLISH 5599 Research And Thesis Credits: 1-9
A student, with permission of the graduate committee, may write a thesis for 3 hours credit.

ENGLISH 5600 Introduction To Doctoral Study In English Credits: 3
Introduction to research skills necessary for doctoral work, particularly for writing the thesis; attention will be paid both to traditional skills such as bibliography and to computer skills.

ENGLISH 5601 Culminating Experience in Literature Credit: 1
Under the guidance of a graduate faculty member in English, students following the program of study in Literature must revise and orally defend a 20-30 page paper in Literature on a pass/no pass basis.

ENGLISH 5602 Culminating Experience in Language & Literature Credit: 1
Under the Guidance of a graduate faculty member in English, Students following the program of study in Language Literature must revise and orally defend a 20-30 page paper in Language Literature on a pass/no pass basis.

ENGLISH 5603 Culminating Experience in Manuscript, Print Culture, & Editing. Credit: 1
Under the guidance of a graduate faculty member in English, students following the program of Study in Manuscript, Print Culture, and Editing must revise and orally defend a 20-30 page paper in Manuscript, Print Culture, and Editing on a pass/no pass basis.

ENGLISH 5650 Doctoral Seminar Credits: 3
ENGLISH 5691 Doctoral Research In Selected Fields Credits: 3
Individual study under the direction of a senior member of the department leading to the writing of a formal or scholarly paper. May be repeated for credit.

ENGLISH 5699 Research And Dissertation Credits: 1-15
Research and preparation for the doctoral dissertation.

ENGLISH 5899 Required Graduate Enrollment Credit: 1
Bachelor of Arts: English

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

- Create coherent academic arguments that are built upon multi-leveled textual analysis.
- Integrate close reading of primary texts.
- Situate texts in cultural and/or historical contexts.
- Engage in critical conversations.
- Present an essay in ways that reflect a sense of professional rules and conventions.

The Bachelor of Arts in English program is recommended for students interested in literature and language, in writing and reading, in texts of all types and how they influence and reflect our world. The English major is also an excellent choice for those interested in obtaining a firm foundation for graduate study in programs as wide-ranging as business or law school, communications, cultural studies, and, of course, English and Creative Writing. English majors planning to attend graduate school are strongly urged to take courses in all periods of English and American literature.

To graduate with a major in English, students must achieve a grade-point average of at least 2.0 in the 36-hour program described below, but no credit will be given for courses in which the grade is below C-. No course may fulfill more than one requirement. At least 18 hours must be taken in the English Department at UMKC. Students complete a capstone project in their final year.

No more than one course in Creative Writing may be counted toward the 36-hour requirement for the Literature major. No courses in expository writing or journalism may be used to fulfill the 300- or 400-level elective requirements.

All students with a major in English must fulfill these requirements. Emphasis areas can be added to the major and they will not be on the diploma, but will be noted in the transcript.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Anchor I 1</td>
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<td>3</td>
</tr>
<tr>
<td>Anchor II 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
</tbody>
</table>

Focus A (Satisfied in program requirements below)
Focus B (Satisfied in program requirements below)
Focus C (May be satisfied by Constitution course requirement below)
Focus Elective

Total credits in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

**Constitution Course Requirement**

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) 1</td>
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<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) 1</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits

Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

**College of Arts & Sciences Degree Requirements**

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ALEKS Math Placement</td>
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<tr>
<td>Arts and Humanities Division of CAS 1</td>
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<td></td>
</tr>
<tr>
<td>Science and Math Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
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<td></td>
</tr>
<tr>
<td>Foreign Language (3rd Semester Level)</td>
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<td>9</td>
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<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course) 2</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
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<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
<td></td>
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<tr>
<td>Laboratory Science Experience</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>31</td>
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</tbody>
</table>

1. ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.
This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

### Major Requirements

Students must successfully complete the major requirements below with at least 18 of the 36 required hours taken in the department at UMKC with 12 of those hours at the 300-level or above.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td><strong>All of the following in Literature:</strong></td>
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<tr>
<td>ENGLISH 311</td>
<td>American Literature I</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 317</td>
<td>British Literature I</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 321</td>
<td>American Literature II</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 323</td>
<td>Shakespeare</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 327</td>
<td>British Literature II</td>
<td>3</td>
</tr>
<tr>
<td><strong>Select one of the following in Language:</strong></td>
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</tr>
<tr>
<td>ENGLISH 310</td>
<td>Introduction To Linguistics/Language Science</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 320</td>
<td>Structure Of English</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 330</td>
<td>History Of The English Language</td>
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</tr>
<tr>
<td><strong>Select one of the following in Rhetoric:</strong></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 305WI</td>
<td>Theory And Practice Of Composition</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 307WI</td>
<td>Language, Literacy, Power</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 308</td>
<td>Rhetorics of New Media</td>
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</tr>
<tr>
<td>ENGLISH 309WI</td>
<td>Rhetorics of Public Memory</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 342WI</td>
<td>Women And Rhetoric</td>
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</tr>
<tr>
<td>ENGLISH 445</td>
<td>History And Principles Of Rhetoric</td>
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<tr>
<td><strong>Select two of the following pre-1900s courses:</strong></td>
<td>6</td>
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</tr>
<tr>
<td>ENGLISH 300CB</td>
<td>Women In The Ancient World</td>
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<tr>
<td>ENGLISH 300CY</td>
<td>Ancient World/Cinema</td>
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<tr>
<td>ENGLISH 318</td>
<td>Bible As Literature</td>
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<tr>
<td>ENGLISH 325</td>
<td>Arthurian Legends</td>
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<tr>
<td>ENGLISH 331</td>
<td>African American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 340AWI</td>
<td>Classical Literature in Translation</td>
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<tr>
<td>ENGLISH 350</td>
<td>The 18th Century Novel</td>
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</tr>
<tr>
<td>ENGLISH 355</td>
<td>The Novel Before 1900</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 356</td>
<td>Studies in Poetry</td>
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<tr>
<td>ENGLISH 376</td>
<td>Concepts of the Hero in Ancient Literature and World Cinema</td>
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<tr>
<td>ENGLISH 404</td>
<td>Old English</td>
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<tr>
<td>ENGLISH 412</td>
<td>Chaucer</td>
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<tr>
<td>ENGLISH 413</td>
<td>Renaissance Literature I</td>
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<tr>
<td>ENGLISH 414</td>
<td>Milton</td>
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<tr>
<td>ENGLISH 415</td>
<td>Restoration And Early 18th-Century British Literature</td>
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<tr>
<td>ENGLISH 416</td>
<td>The Romantic Period</td>
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<tr>
<td>ENGLISH 418</td>
<td>19th-Century American Literature</td>
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<tr>
<td>ENGLISH 422</td>
<td>Medieval Literature</td>
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<tr>
<td>ENGLISH 423</td>
<td>Renaissance Literature II</td>
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<tr>
<td>ENGLISH 425</td>
<td>18th-Century British Literature II</td>
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<tr>
<td>ENGLISH 426</td>
<td>The Victorian Period</td>
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<tr>
<td>ENGLISH 431</td>
<td>18th-Century British Literature</td>
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</tr>
<tr>
<td>ENGLISH 433</td>
<td>Histories Of Writing, Reading, And Publishing</td>
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</tr>
<tr>
<td>ENGLISH 439</td>
<td>Shakespeare and Film</td>
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<tr>
<td>ENGLISH 451</td>
<td>Shakespeare Comedies And Histories</td>
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<tr>
<td>ENGLISH 452</td>
<td>Early English Drama</td>
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<td>ENGLISH 455</td>
<td>Studies In The Novel 1740-1900</td>
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<tr>
<td>Course Code</td>
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<tr>
<td>ENGLISH 461</td>
<td>Shakespeare Tragedies And Romances</td>
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<tr>
<td>ENGLISH 462</td>
<td>Restoration And 18th-Century Drama</td>
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<tr>
<td>ENGLISH 464</td>
<td>Medieval Methods &amp; Paleography</td>
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</tr>
</tbody>
</table>

Select two of the following electives or any of those not taken in the pre-1900s section above

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENGLISH 119</td>
<td>Myth and Literature (Focus A)</td>
</tr>
<tr>
<td>ENGLISH 120</td>
<td>Literary Monstrosities (Focus A)</td>
</tr>
<tr>
<td>ENGLISH 123</td>
<td>True Lives: Autobiographical Arts and Acts (Focus A)</td>
</tr>
<tr>
<td>ENGLISH 124</td>
<td>Writing About Literature</td>
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<tr>
<td>ENGLISH 126</td>
<td>Popular Literature (Focus A)</td>
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<tr>
<td>ENGLISH 130</td>
<td>Introduction to Human Language (Focus A)</td>
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<tr>
<td>ENGLISH 141</td>
<td>Women and Literary Culture/The Heroine in Literature (Focus A)</td>
</tr>
<tr>
<td>ENGLISH 200</td>
<td>Introduction To Undergraduate Study In English</td>
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<tr>
<td>ENGLISH 207</td>
<td>World Literature in English (Focus A)</td>
</tr>
<tr>
<td>ENGLISH 213</td>
<td>Introduction To Drama</td>
</tr>
<tr>
<td>ENGLISH 214</td>
<td>Introduction To Fiction</td>
</tr>
<tr>
<td>ENGLISH 215</td>
<td>Introduction To Poetry</td>
</tr>
<tr>
<td>ENGLISH 216</td>
<td>The Craft of Creative Writing</td>
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<tr>
<td>ENGLISH 218</td>
<td>Introduction to Ethnic Studies</td>
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<tr>
<td>ENGLISH 242</td>
<td>Women Writing/Women Reading (Focus A)</td>
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<tr>
<td>ENGLISH 270</td>
<td>Writing Tutor Training Seminar</td>
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<td>ENGLISH 273</td>
<td>Science Fiction (Focus A)</td>
</tr>
<tr>
<td>ENGLISH 278</td>
<td>Asian American Literature (Focus A)</td>
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<tr>
<td>ENGLISH 300CD</td>
<td>American Social Film:Silver Screen&amp;American Dream</td>
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<tr>
<td>ENGLISH 300CE</td>
<td>Radical Changes Since 1945</td>
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<tr>
<td>ENGLISH 300CQ</td>
<td>Cluster Course: Race in American Film</td>
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<tr>
<td>ENGLISH 300CW</td>
<td>Critical Issues in Women's &amp; Gender Studies</td>
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<td>ENGLISH 312</td>
<td>Creative Writing I Fiction</td>
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<td>ENGLISH 315</td>
<td>Creative Writing Poetry</td>
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<tr>
<td>ENGLISH 316WI</td>
<td>Literary Nonfiction</td>
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<tr>
<td>ENGLISH 326</td>
<td>Modern And Contemporary Irish Literature</td>
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<tr>
<td>ENGLISH 332WI</td>
<td>African American Novel</td>
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<td>ENGLISH 333</td>
<td>African American Literature II</td>
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<td>ENGLISH 336</td>
<td>Contemporary American Literature</td>
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<td>ENGLISH 339</td>
<td>Introduction to Screenwriting</td>
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<td>ENGLISH 344WI</td>
<td>Women &amp; Literary Culture: Genre Focus</td>
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<td>ENGLISH 345WI</td>
<td>Women And Literary Culture: Historical Focus</td>
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<tr>
<td>ENGLISH 351</td>
<td>Special Readings</td>
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<td>ENGLISH 351A</td>
<td>Special Readings: Detective Fiction</td>
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<td>ENGLISH 360</td>
<td>The Modern Novel</td>
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<td>ENGLISH 365</td>
<td>Contemporary Novel</td>
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<td>ENGLISH 365WI</td>
<td>Contemporary Novel</td>
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<tr>
<td>ENGLISH 367</td>
<td>Introduction to Latinx Literature</td>
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<tr>
<td>ENGLISH 378</td>
<td>Asian American Literature</td>
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<tr>
<td>ENGLISH 405</td>
<td>Magazine Editing</td>
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<td>ENGLISH 408</td>
<td>Harlem Renaissance</td>
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<tr>
<td>ENGLISH 410</td>
<td>Black Women Writers</td>
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<tr>
<td>ENGLISH 417</td>
<td>Modern Poetry</td>
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<tr>
<td>ENGLISH 427</td>
<td>Contemporary Poetry</td>
</tr>
<tr>
<td>ENGLISH 428</td>
<td>20th-Century American Literature</td>
</tr>
<tr>
<td>ENGLISH 434</td>
<td>Postcolonial Literature</td>
</tr>
</tbody>
</table>
ENGLISH 440  American Culture
ENGLISH 441  Girls And Print Culture
ENGLISH 442  Playwriting I
ENGLISH 443  Playwriting II
ENGLISH 447  Theory and Criticism in English Studies
ENGLISH 448  External Internship
ENGLISH 449A  Publication Practicum
ENGLISH 449B  Publication Practicum
ENGLISH 450  Special Readings
ENGLISH 453  Modern Drama, 1880-1945
ENGLISH 454  The Civil Rights Movement in African American Literature
ENGLISH 456  From Field Shout to Hip Hop: African American Poetic Traditions
ENGLISH 457  Stages Toward Freedom: African American Dramatic Traditions
ENGLISH 458  Slave Narratives: Race, Gender, and Writing Freedom
ENGLISH 459  African American Migrations in Literature
ENGLISH 468  Women's Literature in Africa and the African Diaspora
ENGLISH 460  Special Offerings
ENGLISH 463  Contemporary Drama II
ENGLISH 465  Studies In The Modern Novel
ENGLISH 470  Introduction To Descriptive Linguistics

**Capstone Experience** ²

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>ENGLISH 499</td>
<td>Senior Tutorial ²</td>
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</tr>
</tbody>
</table>

Total Credits 36

¹ Only one English course at the 100- or 200-level may be used to fulfill an elective requirement. At least two of the four electives must be at the 400-level. Two of the four electives must cover periods prior to 1900. Elective courses may be offered on a rotation basis. Please consult with your advisor for availability.

² No more than one course in Creative Writing may be counted toward the 36-hour requirement for the Literature major. No courses in expository writing or journalism may be used to fulfill the 300- or 400-level elective requirements.

² Please see the Director of Undergraduate Studies to apply for the Capstone course. All students must complete a Capstone contract, signed by the instructor and submitted to the Director of Undergraduate Studies before the end of the third week of the semester in which the Capstone course is being taken.

³ Approval is required by a tenure-line faculty member and the Director of Undergraduate Studies for enrollment in ENGLISH 499.

**General Electives**

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Electives</strong></td>
<td>29</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0

Total Credit Hours: 120

**Tools for Planning and Fulfilling Academic Requirements**

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/plannymydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.
UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Arts: English Creative Writing Emphasis

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

- Demonstrate a thorough understanding of poetics or storytelling craft through the production of creative works that are structurally sound, polished, and complete.
- Demonstrate effective problem-solving and revision strategies in the composition of poems or stories.
- Demonstrate a strong, deliberate command of style, grammar, and mechanics.
- Demonstrate a general knowledge of literary history, especially the literary traditions of their chosen genre.
- Demonstrate the ability to analyze texts critically and the ability to recognize how a text displays a writer’s artistic decisions.
- Demonstrate a working vocabulary with which to discuss the technical and aesthetic aspects of their craft.

The Bachelor of Arts in English with Creative Writing Emphasis combines intensive writing workshops with courses in literature to foster discovery and mastery in creative writing. Our program is based on the belief that successful writers grow from the study of writing and the study of literature, which enables students to learn the traditions and adapt them to their own art. Students complete a capstone project in their final year.

To graduate with a major in English, students must achieve a grade-point average of at least 2.0 in the 36-hour program described below, but no credit will be given for courses in which the grade is below C-. No course may fulfill more than one requirement. At least 18 hours must be taken in the English Department at UMKC. Students complete a capstone project in their final year. Courses may be offered on a rotation basis. Please consult with advisor for current availability.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
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<td>Anchor II</td>
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<td>Anchor III</td>
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<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
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<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
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<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
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<tr>
<td>Focus A</td>
<td>(Satisfied in program requirements below)</td>
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<tr>
<td>Focus B</td>
<td>(Satisfied in program requirements below)</td>
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</tr>
<tr>
<td>Focus C</td>
<td>(May be satisfied by Constitution course requirement below)</td>
<td></td>
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<tr>
<td>Focus Elective</td>
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<td>3</td>
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</tbody>
</table>
'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

| Total Credits | 21 |

1. See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

**Constitution Course Requirement**

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions."

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
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<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
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<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
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<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
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<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
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<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

| Total Credits | 3 |

1. Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

**College of Arts & Sciences Degree Requirements**

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
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<tr>
<th>Code</th>
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<td>Science and Math Division of CAS</td>
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<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
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<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
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<td>Foreign Language (3rd Semester Level)</td>
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<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course)</td>
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<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
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</tr>
<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
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<tr>
<td>Laboratory Science Experience</td>
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</table>

| Total Credits | 31 |

1. ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.
2. This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.
**Major Requirements**

Students must successfully complete the major requirements below with at least 18 of the 36 required hours taken in the department at UMKC with 12 of those hours at the 300-level or above.

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<td>Introduction To Drama</td>
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<td>Introduction To Fiction</td>
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<td>ENGLISH 215</td>
<td>Introduction To Poetry</td>
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<td>ENGLISH 216</td>
<td>The Craft of Creative Writing</td>
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<td>Literature</td>
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<td>ENGLISH 323</td>
<td>Shakespeare</td>
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<td>Select one of the following course pairs:</td>
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<td>ENGLISH 311</td>
<td>American Literature I</td>
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<tr>
<td>&amp; ENGLISH 321</td>
<td>and American Literature II</td>
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<tr>
<td>ENGLISH 317</td>
<td>British Literature I</td>
<td></td>
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<tr>
<td>&amp; ENGLISH 327</td>
<td>and British Literature II</td>
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<td>ENGLISH 331</td>
<td>African American Literature I</td>
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<td>&amp; ENGLISH 333</td>
<td>and African American Literature II</td>
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<td>Language</td>
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<td>Introduction To Linguistics/Language Science</td>
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<td>ENGLISH 320</td>
<td>Structure Of English</td>
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<td>ENGLISH 330</td>
<td>History Of The English Language</td>
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<td>Rhetoric</td>
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<td>ENGLISH 305WI</td>
<td>Theory And Practice Of Composition</td>
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<td>ENGLISH 307WI</td>
<td>Language, Literacy, Power</td>
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<td>ENGLISH 309WI</td>
<td>Rhetorics of Public Memory</td>
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<td>Women And Rhetoric</td>
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<td>ENGLISH 300CE</td>
<td>Radical Changes Since 1945</td>
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<td>ENGLISH 300CQ</td>
<td>Cluster Course: Race in American Film</td>
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<td>ENGLISH 300CW</td>
<td>Critical Issues in Women's &amp; Gender Studies</td>
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<td>ENGLISH 300CY</td>
<td>Ancient World/Cinema</td>
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<td>Contemporary American Literature</td>
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<td>ENGLISH 340AWI</td>
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<td>Women &amp; Literary Culture: Genre Focus</td>
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<td>ENGLISH 345WI</td>
<td>Women And Literary Culture: Historical Focus</td>
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<td>The 18th Century Novel</td>
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<td>Special Readings: Detective Fiction</td>
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<td>The Novel Before 1900</td>
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<td>Restoration And Early 18th-Century British Literature</td>
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<td>The Romantic Period</td>
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<td>Histories Of Writing, Reading, And Publishing</td>
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<td>Special Readings</td>
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<td>ENGLISH 451</td>
<td>Shakespeare Comedies And Histories</td>
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<td>Early English Drama</td>
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<td>Modern Drama, 1880-1945</td>
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<td>The Civil Rights Movement in African American Literature</td>
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<td>Studies In The Novel 1740-1900</td>
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<td>From Field Shout to Hip Hop: African American Poetic Traditions</td>
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<td>Stages Toward Freedom: African American Dramatic Traditions</td>
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<td>Slave Narratives: Race, Gender, and Writing Freedom</td>
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<td>African American Migrations in Literature</td>
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<td>Special Offerings</td>
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<td>Restoration And 18th-Century Drama</td>
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<td>ENGLISH 464</td>
<td>Medieval Methods &amp; Paleography</td>
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<tr>
<td>ENGLISH 465</td>
<td>Studies In The Modern Novel</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 468</td>
<td>Women's Literature in Africa and the African Diaspora</td>
<td></td>
</tr>
</tbody>
</table>
**Bachelor of Arts: English Creative Writing Emphasis**

Select one of the following Writing Sequences:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH 312 &amp; ENGLISH 432WI</td>
<td>Creative Writing I Fiction and Advanced Creative Writing Prose</td>
</tr>
<tr>
<td>ENGLISH 312 &amp; ENGLISH 437WI</td>
<td>Creative Writing I Fiction and Prose Forms</td>
</tr>
<tr>
<td>ENGLISH 315 &amp; ENGLISH 436WI</td>
<td>Creative Writing Poetry and Poetic Forms</td>
</tr>
<tr>
<td>ENGLISH 315 &amp; ENGLISH 435WI</td>
<td>Creative Writing Poetry and Advanced Creative Writing Poetry</td>
</tr>
<tr>
<td>ENGLISH 316WI &amp; ENGLISH 475</td>
<td>Literary Nonfiction and Creative Nonfiction</td>
</tr>
</tbody>
</table>

Select two Additional Writing Courses not included in Writing Sequence, above, from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH 312</td>
<td>Creative Writing I Fiction</td>
</tr>
<tr>
<td>ENGLISH 315</td>
<td>Creative Writing Poetry</td>
</tr>
<tr>
<td>ENGLISH 316WI</td>
<td>Literary Nonfiction</td>
</tr>
<tr>
<td>ENGLISH 405</td>
<td>Magazine Editing</td>
</tr>
<tr>
<td>ENGLISH 432WI</td>
<td>Advanced Creative Writing Prose</td>
</tr>
<tr>
<td>ENGLISH 435WI</td>
<td>Advanced Creative Writing Poetry</td>
</tr>
<tr>
<td>ENGLISH 436WI</td>
<td>Poetic Forms</td>
</tr>
<tr>
<td>ENGLISH 437WI</td>
<td>Prose Forms</td>
</tr>
<tr>
<td>ENGLISH 438</td>
<td>The &quot;New Letters&quot; Writing Conference</td>
</tr>
<tr>
<td>ENGLISH 448</td>
<td>External Internship</td>
</tr>
<tr>
<td>ENGLISH 449A</td>
<td>Publication Practicum</td>
</tr>
<tr>
<td>ENGLISH 449B</td>
<td>Publication Practicum</td>
</tr>
<tr>
<td>ENGLISH 449</td>
<td>Creative Nonfiction</td>
</tr>
<tr>
<td>ENGLISH 313WI</td>
<td>Reporting</td>
</tr>
<tr>
<td>ENGLISH 339</td>
<td>Introduction to Screenwriting</td>
</tr>
<tr>
<td>ENGLISH 429B</td>
<td>Advanced Screenwriting</td>
</tr>
<tr>
<td>ENGLISH 442/THEATRE 437</td>
<td>Playwriting I</td>
</tr>
<tr>
<td>ENGLISH 443/THEATRE 438</td>
<td>Playwriting II</td>
</tr>
<tr>
<td>COMM-ST 339</td>
<td>Introduction to Film Theory</td>
</tr>
<tr>
<td>COMM-ST 351WI</td>
<td>Fundamentals Of Writing For The Media</td>
</tr>
</tbody>
</table>

The following may also qualify as additional writing courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH 313WI</td>
<td>Reporting</td>
</tr>
<tr>
<td>ENGLISH 339</td>
<td>Introduction to Screenwriting</td>
</tr>
<tr>
<td>ENGLISH 429B</td>
<td>Advanced Screenwriting</td>
</tr>
<tr>
<td>ENGLISH 442/THEATRE 437</td>
<td>Playwriting I</td>
</tr>
<tr>
<td>ENGLISH 443/THEATRE 438</td>
<td>Playwriting II</td>
</tr>
<tr>
<td>COMM-ST 339</td>
<td>Introduction to Film Theory</td>
</tr>
<tr>
<td>COMM-ST 351WI</td>
<td>Fundamentals Of Writing For The Media</td>
</tr>
</tbody>
</table>

**Capstone Experience**

Select one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH 432WI</td>
<td>Advanced Creative Writing Prose</td>
</tr>
<tr>
<td>ENGLISH 435WI</td>
<td>Advanced Creative Writing Poetry</td>
</tr>
<tr>
<td>ENGLISH 436WI</td>
<td>Poetic Forms</td>
</tr>
<tr>
<td>ENGLISH 437WI</td>
<td>Prose Forms</td>
</tr>
<tr>
<td>ENGLISH 475</td>
<td>Creative Nonfiction</td>
</tr>
<tr>
<td>ENGLISH 499</td>
<td>Senior Tutorial</td>
</tr>
</tbody>
</table>

**Total Credits:** 36

---

1. Requires permission of the Director of Creative Writing or the Director of Undergraduate Studies.

2. Please see the Director of Undergraduate Studies to apply for the Capstone course. All students must complete a Capstone contract, signed by the instructor and submitted to the Director of Undergraduate Studies before the end of the third week of the semester in which the Capstone course is being taken.

3. Students must complete a poetry or prose sequence with distinguished work before applying to a tenure-line faculty member and the Director of Creative Writing or the Director of Undergraduate Studies for permission to enroll in ENGLISH 499.
General Electives

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>29</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0

Total Credit Hours: 120

Tools for Planning and Fulfilling Academic Requirements

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

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English Classical, Medieval, & Early Modern Literature Emphasis

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

- Create coherent academic arguments that are built upon multi-leveled textual analysis
- Integrate close readings of primary texts
- Situate texts in cultural and/or historical contexts
- Engage in critical conversations
- Present an essay in ways that reflect a sense of professional rules and conventions

The Bachelor of Arts in English with an emphasis in Classical, Medieval, and Early Modern Literature is recommended for students interested in a broad background in the humanities and for those interested in obtaining a firm foundation for further study in graduate school. This option within the English major involves a core of three survey courses to give students grounding in each of the three periods. Students also take one elective from each time period; a course such as “Shakespeare in Film,” “The Ancient World in Film,” or “Arthurian Legends” that allows for the study of how these literatures have been received in modern society; and a course on the linguistic backgrounds of these literatures, such as “History of English,” “Old English,” “Ancient Greek,” “Classical Latin,” or the “History and Principles of Rhetoric.” The remaining three electives can be taken in the English Department or many other departments in the college including Classics, History, Art History, Philosophy, and Geosciences.

To graduate with a major in English, students must achieve a grade-point average of at least 2.0 in the 36-hour program described below, but no credit will be given for courses in which the grade is below C-. No course may fulfill more than one requirement. At least 18 hours must be taken in the English Department at UMKC. Students complete a capstone project in their final year.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
</tbody>
</table>

Focus A (Satisfied in program requirements below)

Focus B (Satisfied in program requirements below)

Focus C (May be satisfied by the Constitution course requirement below)
Focus Elective

'Total credits’ in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td>1</td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits

Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Arts and Humanities Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Science and Math Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language (3rd Semester Level)</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course)</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>Laboratory Science Experience</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits

ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.
Major Requirements

Students must successfully complete the major requirements below with at least 18 of the 36 required hours taken in the Classical and Ancient Studies Program at UMKC with 12 of those hours at the 300-level or above.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Literary Survey:</td>
<td>zentrated Into This List of Course Requirements: <strong>9</strong></td>
<td></td>
</tr>
<tr>
<td>ENGLISH 317</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 323</td>
<td>Shakespeare</td>
<td></td>
</tr>
<tr>
<td>ENGLISH/CLASSICS 340AWI or CLASSICS 210</td>
<td>Classical Literature in Translation Foundations Of Ancient World Literature I</td>
<td></td>
</tr>
<tr>
<td>II. Ancient Literature: ONE of the following:</td>
<td></td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>CLASSICS/ENGLISH 119</td>
<td>Myth and Literature (Focus A)</td>
<td></td>
</tr>
<tr>
<td>CLASSICS/ENGLISH 318</td>
<td>Bible As Literature</td>
<td></td>
</tr>
<tr>
<td>CLASSICS 300CB</td>
<td>CC: Women In The Ancient World</td>
<td></td>
</tr>
<tr>
<td>III. Medieval Literature: ONE of the following:</td>
<td></td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>ENGLISH 325</td>
<td>Arthurian Legends</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 412</td>
<td>Chaucer</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 422</td>
<td>Medieval Literature</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 464</td>
<td>Medieval Methods &amp; Paleography</td>
<td></td>
</tr>
<tr>
<td>IV. Early Modern Literature: ONE of the following (courses are taught on a rotation basis; please see advisor for availability):</td>
<td><strong>3</strong></td>
<td></td>
</tr>
<tr>
<td>ENGLISH 414</td>
<td>Milton</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 415</td>
<td>Restoration And Early 18th-Century British Literature</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 413</td>
<td>Renaissance Literature I</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 423</td>
<td>Renaissance Literature II</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 451</td>
<td>Shakespeare Comedies And Histories</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 452</td>
<td>Early English Drama</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 461</td>
<td>Shakespeare Tragedies And Romances</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 462</td>
<td>Restoration And 18th-Century Drama</td>
<td></td>
</tr>
<tr>
<td>V. Reception: ONE of the following:</td>
<td></td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>ENGLISH/CLASSICS/COMM-ST 300CY</td>
<td>Cluster Course: Ancient World/Cinema</td>
<td></td>
</tr>
<tr>
<td>ENGLISH/CLASSICS 376/COMM-ST 323</td>
<td>Concepts of the Hero in Ancient Literature and World Cinema</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 439</td>
<td>Shakespeare and Film</td>
<td></td>
</tr>
<tr>
<td>VI. Language/Linguistics/Rhetoric Class: ONE of the following:</td>
<td><strong>3</strong></td>
<td></td>
</tr>
<tr>
<td>ENGLISH 330</td>
<td>History Of The English Language</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 404</td>
<td>Old English</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 445</td>
<td>History And Principles Of Rhetoric</td>
<td></td>
</tr>
<tr>
<td>Any course with the curricular designation GREEK or LATIN (or associated cross-listings)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VII. Electives:</td>
<td>Any three courses from the list above, which have not already been used to satisfy a requirement, or any of the courses listed below.</td>
<td><strong>9</strong></td>
</tr>
<tr>
<td>ART-HIST 201</td>
<td>From Cave Paintings to Cathedrals</td>
<td></td>
</tr>
<tr>
<td>ART-HIST 253</td>
<td>History Of The Designed Environment I, Ancient And Medieval</td>
<td></td>
</tr>
<tr>
<td>ANCH 302</td>
<td>Archaeology of Ancient Disasters</td>
<td></td>
</tr>
<tr>
<td>ANCH 307</td>
<td>Frauds, Myths and Mysterious in Archaeology</td>
<td></td>
</tr>
<tr>
<td>CLASSICS 369/ANTHRO 386</td>
<td>Introduction To Prehistoric And Classical Archaeology</td>
<td></td>
</tr>
<tr>
<td>CLASSICS 370/ANTHRO 385</td>
<td>Archaeology as Anthropology: The Development of Human Societies</td>
<td></td>
</tr>
<tr>
<td>CLASSICS/HISTORY 469</td>
<td>Archaeology And Biblical History</td>
<td></td>
</tr>
<tr>
<td>CLASSICS/HISTORY 470</td>
<td>Ancient Egypt</td>
<td></td>
</tr>
<tr>
<td>CLASSICS/HISTORY 471</td>
<td>Ancient Greece</td>
<td></td>
</tr>
<tr>
<td>CLASSICS/HISTORY 472</td>
<td>Ancient Rome</td>
<td></td>
</tr>
<tr>
<td>CLASSICS/HISTORY 474</td>
<td>Late Antiquity: The Transformation of the Mediterranean World (200–600 AD)</td>
<td></td>
</tr>
<tr>
<td>HISTORY 306A</td>
<td>History of Christianity to the Middle Ages</td>
<td></td>
</tr>
</tbody>
</table>
HISTORY 411A  Medieval Civilization I
HISTORY 411B  Medieval Civilization II
HISTORY 412A  Medieval Women & Children
HISTORY 413  Renaissance
HISTORY 414  Reformation
HISTORY 431R  Medieval England, 1066 To 1485
HISTORY 432R  Tudor England, 1485-1603
HISTORY 468R  Archaeology and the History of Antiquity
PHILOS 310WI  Ancient Philosophy
THEATRE 350  Theatre History I

VIII. Capstone Experience: ¹
Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH/CLASSICS 499</td>
<td>Senior Tutorial (Students must sign a Capstone contract) ²</td>
</tr>
</tbody>
</table>

Total Credits 36

¹ Please see the Director of Undergraduate Studies to apply for the Capstone course. All students must complete a Capstone contract, signed by the instructor and submitted to the Director of Undergraduate Studies before the end of the third week of the semester in which the Capstone course is being taken.

² Approval is required by a tenure-line faculty member and the Director of Undergraduate Studies for enrollment in ENGLISH 499.

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<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum GPA: 2.0</td>
<td></td>
</tr>
</tbody>
</table>

Total Credit Hours: 120

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English Language and Rhetoric Emphasis

University Requirements

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Student Learning Outcomes

Students graduating from this program will:

• Create coherent academic arguments that are built upon complex rhetorical and/or linguistic analysis.
• Analyze the language and rhetoric of various texts and media.
• Situate media in cultural and/or historical contexts.
• Engage in critical conversations.
• Present an essay in ways that reflect a sense of professional rules and conventions.

The Bachelor of Arts in English with an emphasis in Language and Rhetoric is recommended for students interested in a broad background in the humanities with a focus in language and rhetoric and for those interested in obtaining a firm foundation for further study in graduate school. Students will receive intensive emphasis in the study of rhetoric and linguistic analysis. This option is especially relevant for students considering law school and careers in communications, marketing, and business.

To graduate with a major in English, students must achieve a grade-point average of at least 2.0 in the 36-hour program described below, but no credit will be given for courses in which the grade is below C-. No course may fulfill more than one requirement. At least 18 hours must be taken in the English Department at UMKC. Students complete a capstone project in their final year.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>Focus B</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>Focus C</td>
<td>(May be satisfied by the Constitution course requirement below)</td>
<td></td>
</tr>
<tr>
<td>Focus Elective</td>
<td>1</td>
<td>3</td>
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</tbody>
</table>

Total Credits 21
1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)́ ¹</td>
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<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)́ ¹</td>
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<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)́ ¹</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)́ ¹</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 3

Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

• Take an equivalent course from the list above at a regionally accredited institution.
• Earn credit for one of the above courses through AP, IB, or CLEP.
• Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
• Have a previous bachelors degree (or higher) from a regionally accredited institution.
• Have an Associate of Arts degree from a regionally accredited institution.
• Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ALEKS Math Placement</td>
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<td></td>
</tr>
<tr>
<td>Arts and Humanities Division of CAŚ ¹</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Science and Math Division of CAS</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
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<td></td>
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<tr>
<td>Foreign Language (3rd Semester Level)</td>
<td>9</td>
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<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course)́ ²</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>Laboratory Science Experience</td>
<td>1</td>
<td></td>
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<tr>
<td>Total Credits</td>
<td>31</td>
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</table>

1 ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.
2 This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

Major Requirements

Students must successfully complete the major requirements below with at least 18 of the 36 required hours taken in the department at UMKC with 12 of those hours at the 300-level or above.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGLISH 311</td>
<td>American Literature I</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Units</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------------</td>
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<tr>
<td>ENGLISH 317</td>
<td>British Literature I</td>
<td>3</td>
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<tr>
<td>ENGLISH 321</td>
<td>American Literature II</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 323</td>
<td>Shakespeare</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 327</td>
<td>British Literature II</td>
<td>3</td>
</tr>
</tbody>
</table>

### Language
Select one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ENGLISH 310</td>
<td>Introduction To Linguistics/Language Science</td>
</tr>
<tr>
<td>ENGLISH 320</td>
<td>Structure Of English</td>
</tr>
<tr>
<td>ENGLISH 330</td>
<td>History Of The English Language</td>
</tr>
</tbody>
</table>

### Rhetoric
Select one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ENGLISH 305WI</td>
<td>Theory And Practice Of Composition</td>
</tr>
<tr>
<td>ENGLISH 307WI</td>
<td>Language, Literacy, Power</td>
</tr>
<tr>
<td>ENGLISH 308</td>
<td>Rhetorics of New Media</td>
</tr>
<tr>
<td>ENGLISH 309WI</td>
<td>Rhetorics of Public Memory</td>
</tr>
<tr>
<td>ENGLISH 342WI</td>
<td>Women And Rhetoric</td>
</tr>
<tr>
<td>ENGLISH 445</td>
<td>History And Principles Of Rhetoric</td>
</tr>
</tbody>
</table>

### Language/Rhetoric/Theory
Select two of the following: 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ENGLISH 305WI</td>
<td>Theory And Practice Of Composition</td>
</tr>
<tr>
<td>ENGLISH 308</td>
<td>Rhetorics of New Media</td>
</tr>
<tr>
<td>ENGLISH 309WI</td>
<td>Rhetorics of Public Memory</td>
</tr>
<tr>
<td>ENGLISH 310</td>
<td>Introduction To Linguistics/Language Science</td>
</tr>
<tr>
<td>ENGLISH 320</td>
<td>Structure Of English</td>
</tr>
<tr>
<td>ENGLISH 330</td>
<td>History Of The English Language</td>
</tr>
<tr>
<td>ENGLISH 342WI</td>
<td>Women And Rhetoric</td>
</tr>
<tr>
<td>ENGLISH 433</td>
<td>Histories Of Writing, Reading, And Publishing</td>
</tr>
<tr>
<td>ENGLISH 441</td>
<td>Girls And Print Culture</td>
</tr>
<tr>
<td>ENGLISH 445</td>
<td>History And Principles Of Rhetoric</td>
</tr>
<tr>
<td>ENGLISH 447</td>
<td>Theory and Criticism in English Studies</td>
</tr>
<tr>
<td>ENGLISH 470</td>
<td>Introduction To Descriptive Linguistics</td>
</tr>
</tbody>
</table>

### English Electives 2
Select two of the following: 6

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ENGLISH 119</td>
<td>Myth and Literature (Focus A)</td>
</tr>
<tr>
<td>ENGLISH 120</td>
<td>Literary Monstrosities (Focus A)</td>
</tr>
<tr>
<td>ENGLISH 123</td>
<td>True Lives: Autobiographical Arts and Acts (Focus A)</td>
</tr>
<tr>
<td>ENGLISH 124</td>
<td>Writing About Literature</td>
</tr>
<tr>
<td>ENGLISH 126</td>
<td>Popular Literature (Focus A)</td>
</tr>
<tr>
<td>ENGLISH 130</td>
<td>Introduction to Human Language (Focus A)</td>
</tr>
<tr>
<td>ENGLISH 141</td>
<td>Women and Literary Culture/The Heroine in Literature (Focus A)</td>
</tr>
<tr>
<td>ENGLISH 200</td>
<td>Introduction To Undergraduate Study In English</td>
</tr>
<tr>
<td>ENGLISH 205</td>
<td>Popular Literature</td>
</tr>
<tr>
<td>ENGLISH 207</td>
<td>World Literature in English (Focus A)</td>
</tr>
<tr>
<td>ENGLISH 213</td>
<td>Introduction To Drama</td>
</tr>
<tr>
<td>ENGLISH 214</td>
<td>Introduction To Fiction</td>
</tr>
<tr>
<td>ENGLISH 215</td>
<td>Introduction To Poetry</td>
</tr>
<tr>
<td>ENGLISH 216</td>
<td>The Craft of Creative Writing</td>
</tr>
<tr>
<td>ENGLISH 218</td>
<td>Introduction to Ethnic Studies</td>
</tr>
<tr>
<td>ENGLISH 242</td>
<td>Women Writing/Women Reading (Focus A)</td>
</tr>
<tr>
<td>ENGLISH 270</td>
<td>Writing Tutor Training Seminar</td>
</tr>
<tr>
<td>ENGLISH 273</td>
<td>Science Fiction (Focus A)</td>
</tr>
<tr>
<td>ENGLISH 278</td>
<td>Asian American Literature (Focus A)</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
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<tr>
<td>ENGLISH 300CB</td>
<td>Women In The Ancient World</td>
</tr>
<tr>
<td>ENGLISH 300CD</td>
<td>American Social Film: Silver Screen &amp; American Dream</td>
</tr>
<tr>
<td>ENGLISH 300CE</td>
<td>Radical Changes Since 1945</td>
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<tr>
<td>ENGLISH 300CQ</td>
<td>Cluster Course: Race in American Film</td>
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<tr>
<td>ENGLISH 300CW</td>
<td>Critical Issues in Women's &amp; Gender Studies</td>
</tr>
<tr>
<td>ENGLISH 300CY</td>
<td>Ancient World/Cinema (Focus A)</td>
</tr>
<tr>
<td>ENGLISH 318</td>
<td>Bible As Literature</td>
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<tr>
<td>ENGLISH 325</td>
<td>Arthurian Legends (Focus A)</td>
</tr>
<tr>
<td>ENGLISH 326</td>
<td>Modern And Contemporary Irish Literature</td>
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<tr>
<td>ENGLISH 331</td>
<td>African American Literature I</td>
</tr>
<tr>
<td>ENGLISH 332WI</td>
<td>African American Novel</td>
</tr>
<tr>
<td>ENGLISH 333</td>
<td>African American Literature II</td>
</tr>
<tr>
<td>ENGLISH 336</td>
<td>Contemporary American Literature</td>
</tr>
<tr>
<td>ENGLISH 339</td>
<td>Introduction to Screenwriting</td>
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<tr>
<td>ENGLISH 340AWI</td>
<td>Classical Literature in Translation</td>
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<tr>
<td>ENGLISH 344WI</td>
<td>Women &amp; Literary Culture: Genre Focus</td>
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<tr>
<td>ENGLISH 345WI</td>
<td>Women And Literary Culture: Historical Focus</td>
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<tr>
<td>ENGLISH 350</td>
<td>The 18th Century Novel</td>
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<td>ENGLISH 351</td>
<td>Special Readings (Focus A)</td>
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<td>ENGLISH 351A</td>
<td>Special Readings: Detective Fiction</td>
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<tr>
<td>ENGLISH 355</td>
<td>The Novel Before 1900</td>
</tr>
<tr>
<td>ENGLISH 356</td>
<td>Studies in Poetry</td>
</tr>
<tr>
<td>ENGLISH 360</td>
<td>The Modern Novel</td>
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<tr>
<td>ENGLISH 365</td>
<td>Contemporary Novel</td>
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<tr>
<td>ENGLISH 365WI</td>
<td>Contemporary Novel</td>
</tr>
<tr>
<td>ENGLISH 367</td>
<td>Introduction to Latinx Literature</td>
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<tr>
<td>ENGLISH 375</td>
<td>Colonial Literature</td>
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<tr>
<td>ENGLISH 376</td>
<td>Concepts of the Hero in Ancient Literature and World Cinema</td>
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<td>ENGLISH 378</td>
<td>Asian American Literature</td>
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<td>ENGLISH 400CF</td>
<td>Cluster Course: Courts And Culture In The Middle Ages</td>
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<td>ENGLISH 404</td>
<td>Old English</td>
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<td>ENGLISH 408</td>
<td>Harlem Renaissance</td>
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<td>ENGLISH 410</td>
<td>Black Women Writers</td>
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<td>ENGLISH 412</td>
<td>Chaucer</td>
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<td>ENGLISH 413</td>
<td>Renaissance Literature I</td>
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<td>ENGLISH 414</td>
<td>Milton</td>
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<td>ENGLISH 415</td>
<td>Restoration And Early 18th-Century British Literature</td>
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<td>ENGLISH 416</td>
<td>The Romantic Period</td>
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<td>ENGLISH 417</td>
<td>Modern Poetry</td>
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<td>ENGLISH 418</td>
<td>19th-Century American Literature</td>
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<td>ENGLISH 422</td>
<td>Medieval Literature</td>
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<td>ENGLISH 423</td>
<td>Renaissance Literature II</td>
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<td>ENGLISH 425</td>
<td>18th-Century British Literature II</td>
</tr>
<tr>
<td>ENGLISH 426</td>
<td>The Victorian Period</td>
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<td>ENGLISH 427</td>
<td>Contemporary Poetry</td>
</tr>
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<td>ENGLISH 428</td>
<td>20th-Century American Literature</td>
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<tr>
<td>ENGLISH 431</td>
<td>18th-Century British Literature</td>
</tr>
<tr>
<td>ENGLISH 433</td>
<td>Histories Of Writing, Reading, And Publishing</td>
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<tr>
<td>ENGLISH 434</td>
<td>Postcolonial Literature</td>
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<tr>
<td>ENGLISH 439</td>
<td>Shakespeare and Film</td>
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<td>American Culture</td>
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<td>Girls And Print Culture</td>
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<td>Code</td>
<td>Title</td>
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<td>ENGLISH 442</td>
<td>Playwriting I</td>
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<td>ENGLISH 443</td>
<td>Playwriting II</td>
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<td>Theory and Criticism in English Studies</td>
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<td>ENGLISH 448</td>
<td>External Internship</td>
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<td>Publication Practicum</td>
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<td>Publication Practicum</td>
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<tr>
<td>ENGLISH 450</td>
<td>Special Readings</td>
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<td>ENGLISH 450A</td>
<td>Special Readings</td>
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<td>ENGLISH 450B</td>
<td>Special Reading Science Fiction</td>
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<td>ENGLISH 451</td>
<td>Shakespeare Comedies And Histories</td>
</tr>
<tr>
<td>ENGLISH 452</td>
<td>Early English Drama</td>
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<td>ENGLISH 453</td>
<td>Modern Drama, 1880-1945</td>
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<tr>
<td>ENGLISH 454</td>
<td>The Civil Rights Movement in African American Literature</td>
</tr>
<tr>
<td>ENGLISH 455</td>
<td>Studies In The Novel 1740-1900</td>
</tr>
<tr>
<td>ENGLISH 456</td>
<td>From Field Shout to Hip Hop: African American Poetic Traditions</td>
</tr>
<tr>
<td>ENGLISH 457</td>
<td>Stages Toward Freedom: African American Dramatic Traditions</td>
</tr>
<tr>
<td>ENGLISH 458</td>
<td>Slave Narratives: Race, Gender, and Writing Freedom</td>
</tr>
<tr>
<td>ENGLISH 459</td>
<td>African American Migrations in Literature</td>
</tr>
<tr>
<td>ENGLISH 468</td>
<td>Women’s Literature in Africa and the African Diaspora</td>
</tr>
<tr>
<td>ENGLISH 460</td>
<td>Special Offerings</td>
</tr>
<tr>
<td>ENGLISH 461</td>
<td>Shakespeare Tragedies And Romances</td>
</tr>
<tr>
<td>ENGLISH 462</td>
<td>Restoration And 18th-Century Drama</td>
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<td>ENGLISH 463</td>
<td>Contemporary Drama II</td>
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<td>ENGLISH 464</td>
<td>Medieval Methods &amp; Paleography</td>
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<tr>
<td>ENGLISH 465</td>
<td>Studies In The Modern Novel</td>
</tr>
<tr>
<td>ENGLISH 470</td>
<td>Introduction To Descriptive Linguistics</td>
</tr>
</tbody>
</table>

**Capstone Experience**

Select one of the following:

- Any 400-level English course language, rhetoric, or literature that is cross-listed with a graduate-level course
- ENGLISH 499 Senior Tutorial

Total Credits: 36

**General Electives**

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>29</td>
</tr>
</tbody>
</table>

1. No course may be used to fulfill more than one requirement, but courses not used for “Language” or “Rhetoric” categories above may be taken for the “Language/Rhetoric/Theory” category.
2. Only one course at the 100- or 200-level may be used to fulfill an elective requirement. No more than one course in Creative Writing may be counted toward the 36-hour requirement for the Language and Rhetoric Emphasis. No course in expository writing or journalism may be used to fulfill the 300-level or above elective requirement. Elective coursework may be offered on a rotation basis. Please consult with your advisor for current availability.
3. Please see the Director of Undergraduate Studies to apply for the Capstone course. All students must complete a Capstone contract, signed by the instructor and submitted to the Director of Undergraduate Studies before the end of the third week of the semester in which the Capstone course is being taken.
4. Approval is required by a tenure-line faculty member and the Director of Undergraduate Studies for enrollment in ENGLISH 499.

Minimum GPA: 2.0

Total Credit Hours: 120
Tools for Planning and Fulfilling Academic Requirements

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major "fit". In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Teacher Certification in English

Program Requirements

Certification as a middle school (grades 5-9) or secondary (grades 9-12) English teacher in either Kansas or Missouri requires that a student complete specific requirements in English and the School of Education. A separate application for teacher education is required. For further information about the program, consult the School of Education section of this catalog or contact the Education Student Services Office at (816) 235-2234.
Minor in Creative Writing

Program Requirements

The Minor in Creative Writing is designed for students who are eager to give focused attention to developing their talents in poetry, fiction, or creative nonfiction writing.

To graduate with a Minor in Creative Writing, students must achieve a grade-point average of at least 2.0 in the 21-hour program described below, but no credit will be given for courses in which the grade is below C-. No course may fulfill more than one requirement.

Program of Study

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
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Total Credits 21

1 Some courses in Communication Studies, Theatre, or Foreign Languages may also be applicable with the permission of the Director of Undergraduate Studies or the Director of Creative Writing.
Minor in English Language and Literature

Student Learning Outcomes

Students graduating from this program will:

• Create coherent academic arguments that are built upon multi-leveled textual analysis.
• Integrate close reading of primary texts.
• Engage in critical conversations.
• Present an essay in ways that reflect a sense of professional rules and conventions.

Program Requirements

The Minor in English Language and Literature is designed for students desiring a general background in literature written in English.

To graduate with a Minor in English Language and Literature, students must achieve a grade-point average of at least 2.0 in the 18-hour program described below, but no credit will be given for courses in which the grade is below C-. Students must take 12 of the 18 hours required at the 300- or 400-level. No course may fulfill more than one requirement. No courses in journalism or in expository writing may be counted toward the Minor in English. No more than one course in Creative Writing may be counted toward the Minor in English Literature. In addition to the following approved courses, students may petition to have other considered by the Director of Undergraduate Studies in English.

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Total Credits: 18
Minor in Manuscript, Print Culture, and Editing

Program Requirements

The Minor in Manuscript, Print Culture, and Editing examines the social, cultural, economic, and political history of the written word. It considers relationships among authors, editors, publishers, printers, illustrators, and booksellers as well as the reception of texts by readers, reviewers, and critics. This minor allows students to study the production of texts through the centuries while also gaining hands-on editing experience through internal and external internships. Students take a wide variety of courses covering a range of historical periods that have a significant emphasis on the history of reading, writing, and authorship as well as courses that focus on aspects of contemporary publishing and editing.

To graduate with a Minor in Manuscript, Print Culture, and Editing, students must achieve a grade-point average of at least 2.0 in the 21-hour program described below, but no credit will be given for courses in which the grade is below C-. No course may fulfill more than one requirement.

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<td>ENGLISH 311</td>
<td>American Literature I</td>
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<tr>
<td>ENGLISH 317</td>
<td>British Literature I</td>
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<tr>
<td>ENGLISH 321</td>
<td>American Literature II</td>
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<tr>
<td>ENGLISH 327</td>
<td>British Literature II</td>
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</tr>
<tr>
<td>ENGLISH 331</td>
<td>African American Literature I</td>
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<td>ENGLISH 333</td>
<td>African American Literature II</td>
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<td>ENGLISH 310</td>
<td>Introduction To Linguistics/Language Science</td>
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<tr>
<td>ENGLISH 320</td>
<td>Structure Of English</td>
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<tr>
<td>ENGLISH 330</td>
<td>History Of The English Language</td>
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<td>Electives</td>
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<td>Select four of the following:</td>
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<td>ENGLISH 404</td>
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<td>ENGLISH 405</td>
<td>Magazine Editing</td>
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<tr>
<td>ENGLISH 433</td>
<td>Histories Of Writing, Reading, And Publishing (repeatable with different focus)</td>
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<tr>
<td>ENGLISH 441</td>
<td>Girls And Print Culture (repeatable with different focus)</td>
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<td>ENGLISH 464</td>
<td>Medieval Methods &amp; Paleography</td>
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<tr>
<td>ENGLISH 448</td>
<td>External Internship 1</td>
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<td>ENGLISH 449A</td>
<td>Publication Practicum</td>
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<tr>
<td>Total Credits</td>
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1. External Internship must be coordinated with a publishing house or other agency and approved by the Director of Undergraduate Studies.

The following courses may also be used to fulfill the elective requirements for the Minor in Magazine, Print Culture, and Editing (MPCE) when the instructor elects this designation. Each semester, courses designated MPCE will be listed on the Department of English (http://cas.umkc.edu/english/undergrad-program/course-descriptions.asp) website.

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<td>Black Women Writers</td>
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<td>ENGLISH 412</td>
<td>Chaucer</td>
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<td>ENGLISH 413</td>
<td>Renaissance Literature I</td>
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<td>ENGLISH 414</td>
<td>Milton</td>
<td>3</td>
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<tr>
<td>ENGLISH 415</td>
<td>Restoration And Early 18th-Century British Literature</td>
<td>3</td>
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<td>ENGLISH 416</td>
<td>The Romantic Period</td>
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<tr>
<td>ENGLISH 417</td>
<td>Modern Poetry</td>
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<td>Course Code</td>
<td>Course Title</td>
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<td>ENGLISH 418</td>
<td>19th-Century American Literature</td>
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<td>ENGLISH 422</td>
<td>Medieval Literature</td>
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<tr>
<td>ENGLISH 423</td>
<td>Renaissance Literature II</td>
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<td>ENGLISH 425</td>
<td>18th-Century British Literature II</td>
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<td>ENGLISH 426</td>
<td>The Victorian Period</td>
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<td>ENGLISH 427</td>
<td>Contemporary Poetry</td>
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<td>ENGLISH 428</td>
<td>20th-Century American Literature</td>
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<td>ENGLISH 431</td>
<td>18th-Century British Literature</td>
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<td>ENGLISH 434</td>
<td>Postcolonial Literature</td>
<td>3</td>
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<td>ENGLISH 436</td>
<td>American Culture</td>
<td>3</td>
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<td>ENGLISH 445</td>
<td>History And Principles Of Rhetoric</td>
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<td>ENGLISH 451</td>
<td>Shakespeare Comedies And Histories</td>
<td>3</td>
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<tr>
<td>ENGLISH 452</td>
<td>Early English Drama</td>
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<td>ENGLISH 453</td>
<td>Modern Drama, 1880-1945</td>
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<td>ENGLISH 454</td>
<td>The Civil Rights Movement in African American Literature</td>
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<td>ENGLISH 455</td>
<td>Studies In The Novel 1740-1900</td>
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<td>ENGLISH 456</td>
<td>From Field Shout to Hip Hop: African American Poetic Traditions</td>
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<td>ENGLISH 457</td>
<td>Stages Toward Freedom: African American Dramatic Traditions</td>
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<td>ENGLISH 458</td>
<td>Slave Narratives: Race, Gender, and Writing Freedom</td>
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<td>ENGLISH 459</td>
<td>African American Migrations in Literature</td>
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<td>ENGLISH 461</td>
<td>Shakespeare Tragedies And Romances</td>
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<td>ENGLISH 462</td>
<td>Restoration And 18th-Century Drama</td>
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<td>ENGLISH 463</td>
<td>Contemporary Drama II</td>
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<td>ENGLISH 465</td>
<td>Studies In The Modern Novel</td>
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<td>ENGLISH 468</td>
<td>Women’s Literature in Africa and the African Diaspora</td>
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Minor in Writing

Program Requirements

The Minor in Writing is designed for students interested in a focus on writing of all types and genres. Students select from a menu of courses in writing, rhetoric, and linguistics.

To graduate with a Minor in Writing, students must achieve a grade-point average of at least 2.0 in the 18-hour program described below, but no credit will be given for courses in which the grade is below C-. No course may fulfill more than one requirement. No more than two courses in Creative Writing may be counted toward the Minor in Writing. One writing-intensive (WI) course in a discipline other than English may be counted toward the Minor in Writing.

Program of Study

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<td>ENGLISH 270</td>
<td>Writing Tutor Training Seminar</td>
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<td>ENGLISH 203</td>
<td>Introduction to Journalism</td>
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<td>ENGLISH 301WI</td>
<td>Writing And The Academy</td>
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<td>ENGLISH 304WI</td>
<td>Workplace Writing</td>
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<td>ENGLISH 305WI</td>
<td>Theory And Practice Of Composition</td>
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<td>ENGLISH 307WI</td>
<td>Language, Literacy, Power</td>
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<tr>
<td>ENGLISH 308</td>
<td>Rhetorics of New Media</td>
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<tr>
<td>ENGLISH 309WI</td>
<td>Rhetorics of Public Memory</td>
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<td>ENGLISH 312</td>
<td>Creative Writing I Fiction</td>
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<tr>
<td>ENGLISH 313WI</td>
<td>Reporting</td>
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<td>ENGLISH 315</td>
<td>Creative Writing Poetry</td>
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<td>ENGLISH 316WI</td>
<td>Literary Nonfiction</td>
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<td>ENGLISH 339</td>
<td>Introduction to Screenwriting</td>
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<td>ENGLISH 342WI</td>
<td>Women And Rhetoric</td>
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<td>ENGLISH 405</td>
<td>Magazine Editing</td>
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<td>ENGLISH 429B</td>
<td>Advanced Screenwriting</td>
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<td>ENGLISH 432WI</td>
<td>Advanced Creative Writing Prose</td>
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<td>ENGLISH 435WI</td>
<td>Advanced Creative Writing Poetry</td>
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<td>ENGLISH 436WI</td>
<td>Poetic Forms</td>
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<td>ENGLISH 437WI</td>
<td>Prose Forms</td>
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<td>ENGLISH 442</td>
<td>Playwriting I</td>
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<td>ENGLISH 443</td>
<td>Playwriting II</td>
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</tr>
<tr>
<td>ENGLISH 445</td>
<td>History And Principles Of Rhetoric</td>
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</table>

Total Credits: 18
Master of Arts: English

The Department of English offers the Master of Arts in English, which focuses on literary study, as well as two emphasis areas that allow students to concentrate their studies in a particular area: 1) Language and Literature, and 2) Manuscript, Print Culture, and Editing. Through courses in English and American literature, creative and expository writing, film, linguistics, composition/rhetoric, literary criticism, the history of books and print culture, as well as editing, these programs of study are designed to prepare students for teaching, research, and writing careers, for careers in editing, and for further study at the doctoral level. The 31-hour M.A. in English is designed for students desiring a general background in English and American literature and is strongly recommended for students planning further graduate study in English and/or American literature.

The Language and Literature emphasis is designed for students who wish to combine graduate study of literature with the study of linguistics and/or composition and rhetoric. This emphasis is recommended for students interested in teaching in community colleges or secondary schools and for students interested in pursuing the Ph.D. in composition and rhetoric.

The Manuscript, Print Culture, and Editing emphasis is designed for students who wish to combine the study of literature with the study of book history, print culture, and editing. This emphasis is recommended for students interested in editorial careers, offering several internship experiences in print and online media, and for students interested in pursuing the Ph.D. in book history and print culture.

Members of the graduate faculty are assigned as advisors to newly admitted M.A. students. New graduate students should meet with their advisors as soon as possible to prepare an official program of study.

Admission

The application process is competitive. Satisfying the admission requirements does not guarantee admission to the program.

The applicant must hold:

- a B.A. in English, or a B.A. degree that includes at least 30 hours of sophomore-, junior- or senior-level English courses, or the equivalent. Applicants with fewer than 30 hours of undergraduate English courses may be admitted and assigned additional coursework as part of their program. These extra hours are added to the hours required for graduation.
- a 3.0 cumulative grade-point average in undergraduate work and a 3.0 average in undergraduate English coursework. In unusual circumstances, the graduate committee may consider applicants with lower grade-point averages.

Applicants will be asked to submit the following materials with their online application:

1. Academic information, including institutions attended, degrees earned, GPA, foreign language experience, honors and awards, and relevant work experience
2. Writing sample that demonstrates the applicant’s writing abilities in the humanities in up to 15 pages of recent academic prose (upload file)
3. Statement of purpose that describes the applicant’s academic and professional objectives in an essay of 500-600 words, discussing in detail their interest, research, and writing in their emphasis area (upload file)
4. Three letters of recommendation that evaluate the applicant’s readiness for graduate study written by three professors or others who know the applicant’s abilities and potential well (provide email addresses and recommenders will receive instructions to upload letters)
5. GRE score of 60 percent or higher on the verbal aptitude section (submit official scores using code 6872)
6. Transcripts from all post-secondary schools attended (mail to UMKC Office of Admissions, 5100 Rockhill Road, 120 Administrative Center, 64110)
7. Graduate Teaching Assistantship application materials, if applying, including a 250-500 word teaching statement addressing the applicant’s interest in and qualifications for teaching, and an academic writing sample from an upper-level college course (upload files)

Students may not take more than six hours of graduate credit in English before entering the program as a "fully admitted" student.

Student Learning Outcomes

Students graduating from this program will:

- Create sophisticated academic arguments that situate texts within aesthetic, social, and historical context.
- Produce work in dialogue with current and historical conversations in the field;
- Evaluate and engage methodological approaches appropriate to academic discourse;
- Develop and defend, both orally and in writing, their critical perspectives;
- Synthesize an understanding of interrelations across diverse fields of study;
- Demonstrate a broad grounding in the diversity of fields in English studies.
- Produce written work in a vivid, appropriate style that demonstrates mastery of mechanics and grammar.
Degree Requirements

Students must earn 31 graduate credits to complete the M.A. in English. Of these credits, at least 15 hours must be at graduate level (courses numbered 5000 and above) and taught by a member of the graduate faculty and at least 9 hours must be in 5000-level seminars or other 5000-level courses which are not cross-listed with 400-level courses.

Students must take ENGLISH 5500, ENGLISH 5547, and one hour of ENGLISH 5601, ENGLISH 5602, or ENGLISH 5603 for their "Culminating Experience," as is appropriate depending on the focus of their studies.

Students must maintain a 3.0 (B) grade-point average to remain in the M.A. program and to complete the degree.

By the time of graduation from the M.A. program, students must fulfill a foreign language requirement by satisfactorily completing (with a C or better) one year (two university semesters) of the same foreign language. Alternatively, the foreign language requirement may be satisfied by scoring a "C" on the final exam of the first-year, second-semester course in a foreign language. Previous undergraduate coursework may be used to satisfy this requirement. Old English may satisfy one semester of this requirement. Foreign language credits do not apply toward the 31-hour degree requirement, unless taken at the graduate level.

Students must remain continuously enrolled, except in summer, for a minimum of 1 credit hour per semester. ENGLISH 5899 is the continuous enrollment course number.

Students must complete a formal Program of Study and have it signed within a year after admission. A final Program of Study must be submitted and signed during the semester a student files to graduate.

Students must complete all coursework within seven years.

Students must take at least one course from five of the seven designated areas, including at least one course from areas I & II, one course from areas III & IV, and one course from areas V-VII:

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<td>Theory and Criticism in English Studies</td>
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<td>ENGLISH 5550G</td>
<td>Graduate Seminar Literary Criticism</td>
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<td>ENGLISH 5555G</td>
<td>Graduate Seminar Literary Criticism</td>
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<tr>
<td><strong>II. Language and Rhetoric</strong></td>
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<td>ENGLISH 445/5545</td>
<td>History And Principles Of Rhetoric</td>
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<td>ENGLISH 470</td>
<td>Introduction To Descriptive Linguistics</td>
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<td>ENGLISH 5519</td>
<td>Teaching Writing: Theories, Histories, Contexts, Practices</td>
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<td>ENGLISH 5550J</td>
<td>Graduate Seminar: History Of The English Language</td>
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<td>ENGLISH 5550M</td>
<td>Graduate Seminar In Rhetoric And Composition</td>
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<td>ENGLISH 5555J</td>
<td>Graduate Seminar English Language</td>
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<td>ENGLISH 5555M</td>
<td>Graduate Seminar Composition</td>
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<td>ENGLISH 422/5522</td>
<td>Medieval Literature</td>
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<td>Early English Drama</td>
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<td><strong>IV. Renaissance Literature</strong></td>
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<td><strong>V. Late 17th- and 18th-Century Literature</strong></td>
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### VI. Nineteenth-Century Literature

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<td>Black Women Writers ²</td>
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<td>ENGLISH 416/5516</td>
<td>The Romantic Period ¹</td>
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<td>ENGLISH 418/5518</td>
<td>19th-Century American Literature</td>
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<td>ENGLISH 426/5526</td>
<td>The Victorian Period</td>
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<td>ENGLISH 440/5540</td>
<td>American Culture ²</td>
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<td>ENGLISH 458/5558</td>
<td>Slave Narratives: Race, Gender, and Writing Freedom</td>
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<td>ENGLISH 5550D</td>
<td>Graduate Seminar 19th Century Literature I</td>
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### VII. Twentieth-Century Literature

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<td>Modern Drama, 1880-1945</td>
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<td>The Civil Rights Movement in African American Literature</td>
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<td>Studies In The Modern Novel</td>
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<td>ENGLISH 5555F</td>
<td>Graduate Seminar In Modern Literature II</td>
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</table>

¹ Satisfies 18th- or 19th-Century requirement, depending on the content.
² Satisfies 19th- or 20th-Century requirement, depending on the content.

Other courses in the catalog at the 400 or 500 level may satisfy an area requirement if the content is appropriate.

Students who focus on Literature must complete ENGLISH 5601 on a topic related to the study of Literature.

### Language and Literature Emphasis

If desired, a student may elect the Language and Literature Emphasis when obtaining the M.A. in English. At least 12 hours selected from the following list of courses are required:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH 445/5545</td>
<td>History And Principles Of Rhetoric</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 447/5547</td>
<td>Theory and Criticism in English Studies</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 470</td>
<td>Introduction To Descriptive Linguistics</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5519</td>
<td>Teaching Writing: Theories, Histories, Contexts, Practices</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5550G/5555G</td>
<td>Graduate Seminar Literary Criticism</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5550J/5555J</td>
<td>Graduate Seminar: History Of The English Language</td>
<td>3</td>
</tr>
</tbody>
</table>
For students interested in teaching in community colleges or secondary schools or in pursuing a Ph.D. in composition and rhetoric, ENGLISH 5519 is highly recommended. ENGLISH 5519 is required for graduate teaching assistants.

In addition to the requirements for areas I & II, students must take at least one course from three of the five remaining areas (III-VII), including at least one course from areas III-IV and at least one course from areas V-VII.

Students who focus on Language & Literature must complete ENGLISH 5602 on a topic related to the study of Language & Literature.

**Manuscript, Print Culture, and Editing Emphasis**

If desired, a student may elect the Manuscript, Print Culture, and Editing Emphasis when obtaining the M.A. in English. This emphasis examines the social, cultural, economic, and political history of the written word. It considers relationships among authors, editors, publishers, printers, illustrators, and booksellers as well as the reception of texts by readers, reviewers, and critics. In addition, it allows students to study the production of texts through the centuries while also gaining hands-on editing experience through internal and external publishing internships. Students will take a wide variety of courses covering a range of historical periods that have a significant emphasis on the history of reading, writing, and authorship as well as courses that focus on aspects of contemporary publishing and editing.

This emphasis also follows the distribution requirements for the M.A. in English, and it requires that students take twelve (12) of the 31 required credit hours in courses that have been designated as ones fulfilling the goals of the emphasis in Manuscript, Print Culture, and Editing; some courses will always be so designated, including the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>ENGLISH 448</td>
<td>External Internship</td>
<td>1-3</td>
</tr>
<tr>
<td>ENGLISH 449A</td>
<td>Publication Practicum</td>
<td>1-3</td>
</tr>
<tr>
<td>ENGLISH 449B</td>
<td>Publication Practicum</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5501</td>
<td>Magazine Editing</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5533</td>
<td>Histories Of Writing, Reading, And Publishing</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5541</td>
<td>Girls And Print Culture</td>
<td>3</td>
</tr>
</tbody>
</table>

The following courses may also be used to fulfill the requirements for the emphasis in Manuscript, Print Culture, and Editing if approved by the Graduate Committee. Each semester, courses so designated will be listed in the Department of English course descriptions handout, available in the Department office and on the Department website:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH 5508</td>
<td>Harlem Renaissance</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5510</td>
<td>Black Women Writers</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5512</td>
<td>Chaucer</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5513</td>
<td>Renaissance Literature I</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5514</td>
<td>Milton</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5515</td>
<td>Restoration And Early 18th-Century British Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5516</td>
<td>The Romantic Period</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5517</td>
<td>Modern Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5518</td>
<td>19th-Century American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5522</td>
<td>Medieval Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5523</td>
<td>Renaissance Literature II</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5526</td>
<td>The Victorian Period</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5527</td>
<td>Contemporary Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5528</td>
<td>20th Century American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5531</td>
<td>Late 18th-Century British Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5534</td>
<td>Postcolonial Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5540</td>
<td>American Culture</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5545</td>
<td>History And Principles Of Rhetoric</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5550A</td>
<td>Graduate Seminar Medieval Literature I</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5550B</td>
<td>Graduate Seminar Renaissance Literature I</td>
<td>3</td>
</tr>
</tbody>
</table>
ENGLISH 5550C  Graduate Seminar Neo- Classical Literature I  3
ENGLISH 5550D  Graduate Seminar 19th Century Literature I  3
ENGLISH 5550E  Graduate Seminar American Literature I  3
ENGLISH 5550F  Graduate Seminar Modern Literature I  3
ENGLISH 5550I  Graduate Seminar In Dramatic Literature I  3
ENGLISH 5551  Shakespeare Comedies And Histories  3
ENGLISH 5552  Early English Drama  3
ENGLISH 5553  Modern Drama 1880-1945  3
ENGLISH 5555A  Graduate Seminar Medieval Literature II  3
ENGLISH 5555B  Graduate Seminar Renaissance Literature II  3
ENGLISH 5555C  Graduate Seminar Neo- Classical Literature I  3
ENGLISH 5555D  Graduate Seminar In 19th-Century Literature II  3
ENGLISH 5555E  Graduate Seminar American Literature II  3
ENGLISH 5555F  Graduate Seminar In Modern Literature II  3
ENGLISH 5555I  Graduate Seminar In Dramatic Literature II  3
ENGLISH 5556  Studies In The Novel 1740-1900  3
ENGLISH 5561  Shakespeare:Tragedies And Romances  3
ENGLISH 5562  Restoration And 18th- Century Drama  3
ENGLISH 5563  Contemporary Drama  3
ENGLISH 5565  Studies In Modern Novel  3

Total Credits  31

New courses may receive the designation if approved by the Department of English’s Graduate Committee.

Students who elect the MPCE emphasis must complete ENGLISH 5603 on a topic related to the study of Manuscript, Print Culture, and Editing.

**Culminating Experience**

At the end of their M.A. course work (either in the last semester or the second to last semester), all M.A. students in English will revise a seminar paper (written in a previous course) under the guidance of a faculty mentor. The goal of the revisions will be to create a polished paper of about 20-30 pages that could be the basis for a conference paper, a writing sample, or a publishable article.

Students will enroll in and successfully complete one hour of ENGLISH 5601, ENGLISH 5602, or ENGLISH 5603 for their "Culminating Experience," as is appropriate depending on the focus of their studies. Enrollment is required in order to work on this final paper with their chosen faculty mentor.

Final papers will be reviewed by a faculty committee that will rotate each academic year. The committee will consist of two assigned members of the graduate faculty appointed by the Director of Graduate Studies, who will work with the student’s faculty mentor.

Students will turn in their revised papers to their mentors and the review committee at least two weeks prior to the end of the semester. The mentor is responsible for arranging a meeting with the student and the review committee before the end of the semester in which the Culminating Experience is taken. After conducting a defense about the paper and providing feedback for the student, the mentor and the review committee will assign a grade of pass or fail. Students must complete the oral defense in order to pass.

In addition to the department requirements above, graduate students in English must comply with the requirements listed in the General Graduate Academic Regulations and Information section of this catalog.
Master of Fine Arts: Creative Writing and Media Arts

The Department of English offers the degree Master of Fine Arts (M.F.A.) in Creative Writing and Media Arts. This interdisciplinary degree includes coursework in allied programs in Communication Studies and Theatre. The 42-hour program provides learning opportunities in writing, literary publishing, broadcasting, screen and stage writing, and production skills. The M.F.A. is a terminal degree in the field of Creative Writing and is designed to prepare students for careers as literary artists, authors, playwrights, poets, teachers, and screenwriters.

Admission

The application process is competitive. Satisfying the admission requirements does not guarantee admission to the program.

The applicant must hold:

• a B.A. in English, or a B.A. degree that includes at least 30 hours of sophomore-, junior- or senior-level English courses, or the equivalent. Applicants with fewer than 30 hours of undergraduate English courses may be admitted and assigned additional coursework as part of their program. These extra hours are added to the hours required for graduation.
• a 3.0 cumulative grade-point average in undergraduate work and a 3.0 average in undergraduate English coursework. In unusual circumstances, the Graduate Committee may consider applicants with lower grade-point averages.

Applicants will be asked to submit the following materials with their online application:

1. Academic information, including institutions attended, degrees earned, GPA, foreign language experience, honors and awards, and relevant work experience
2. Writing sample that demonstrates the applicant’s writing abilities in one single emphasis area (no more than 10 pages for poetry; no more than 30 pages for fiction, creative nonfiction, playwriting or screenwriting)
3. Statement of purpose that describes the applicant’s academic and professional objectives in an essay of 500-600 words, discussing in detail their interest, research, and writing in their emphasis area (upload file)
4. Three letters of recommendation that evaluate the applicant’s readiness for graduate study written by three professors or others who know the applicant’s abilities and potential well (provide email addresses and recommenders will receive instructions to upload letters)
5. GRE score of 60 percent or higher on the verbal aptitude section (submit official scores using code 6872)
6. Transcripts from all post-secondary schools attended (mail to UMKC Office of Admissions, 5100 Rockhill Road, 120 Administrative Center, 64110)
7. Graduate Teaching Assistantship application materials, if applying, including a 250-500 word teaching statement addressing the applicant’s interest in and qualifications for teaching, and an academic writing sample from an upper-level college course (upload files)

Students may not take more than six hours of graduate credit in English before entering the program as a "fully admitted" student.

Student Learning Outcomes

Students graduating from this program will:

• Mastery of poetics or storytelling craft through the creation of a full-length manuscript of poetry, fiction, non-fiction, plays, or screenplays that are structurally sound, polished, and complete, and have a distinct voice;
• Effective problem-solving and revision strategies in the composition of poems, fiction, non-fiction, plays, or screenplays;
• A deliberate, masterful command of language, including style, grammar, and mechanics;
• Proficiency in at least one genre outside of their primary field and the ability to apply the techniques of their secondary genres to the work they produce in their primary field or study;
• Sophisticated critical analyses of literary texts, including an understanding of how a text displays a writer’s artistic techniques and the ability to incorporate those techniques into their own writing; and
• Thorough knowledge of the literary traditions of their primary genre and the ability to situate their own work within current literary conversations.

Degree Requirements

Students must earn 42 graduate credit hours beyond the bachelor’s degree. Of these, at least 27 hours must be at the graduate level (courses numbered 5500 and above) and taught by a member of UMKC’s graduate faculty.

Students must maintain a 3.0 (B) grade-point average to remain in the M.F.A. program and to complete the degree.

Foreign Language Requirement: By the time of graduation from the M.F.A. program, students must have completed one year (two university semesters) of a single foreign language. Alternatively, the foreign language requirement may be satisfied by scoring a “C” on the final exam of the first-year, second-semester course in foreign language. Previous undergraduate coursework may be used to satisfy this requirement.

Students must remain continuously enrolled, except in summer, for a minimum of 1 credit hour per semester. ENGLISH 5899 is the continuous enrollment course number.
Students must complete a formal Program of Study and have it signed within a year after admission. A final Program of Study must be submitted and signed during the semester a student files to graduate.

Students must complete all coursework within seven years.

Students must focus on one or more of the following genres:

- Creative Nonfiction (p. 284)
- Fiction (p. 287)
- Playwriting (p. 290)
- Screenwriting (http://catalog.umkc.edu/colleges-schools/arts-sciences/academic-departments-programs/english-language-literature/master-of-fine-arts-creative-writing-media-arts/screenwriting)
- Poetry (p. 293)

With approval from the Director of Creative Writing and the instructor of the course, students may arrange to submit creative work in their core genre in a workshop of another genre.

Residency requirements: a minimum of 33 hours must be completed at UMKC.

**Requirements for M.F.A. Thesis**

In consultation with the faculty, the student will chose a thesis committee comprised of three members: a thesis director from the M.F.A. faculty and two other faculty members approved by the director and selected from the M.F.A. faculty, the faculty of another institution, or the faculties of the Departments of English, Communication Studies, or Theatre. Under the guidance of the thesis director, the student will complete a publishable or producible manuscript of one of the following:

- a book of poems (48-80 pages, single spaced); or
- a book of short stories or creative nonfiction essays (180 pages, double spaced); or
- a novel or novel-length nonfiction book (180-page minimum, double spaced); or
- a full-length play or several one-act plays; or
- a feature-length screenplay (95-120 pages) or a series bible and two 1-hour episodes (20 pages + two 45-page episodes); or
- a full-length cross-genre work, with Committee Chair permission.

At the completion of the writing project, the student will meet with his or her committee for a one-hour defense of the thesis.

Advisors may approve courses in other departments that may be highly valuable for particular student programs, e.g., History for documentary film, Foreign Language for translation work, Philosophy for aesthetics and theoretical/experimental approaches, and Art. Collaborative directed studies may be offered to allow two or more students to use two or more genres/media. Students may also seek collaborative opportunities in the Conservatory of Music and Dance and in Computer Science.

In addition to the department requirements above, graduate students in English must comply with the requirements listed in the General Graduate Academic Regulations and Information (p. 1189) section of this catalog.
Master of Fine Arts: Creative Writing & Media Arts - Creative Nonfiction Option

Student Learning Outcomes

Students graduating from this program will:

• Show mastery of storytelling craft through the creation of a full-length manuscript of creative nonfiction that: a) is structurally sound; b) is polished and complete; c) has a distinct voice and/or vision.

• Show evidence of effective problem-solving and revision strategies

• Demonstrate a deliberate, masterful command of language, including: a) Style; b) grammar and mechanics.

• Demonstrate, in the text or critical introduction, a proficiency in at least one genre outside of their primary field and the ability to apply the techniques of their secondary genres to the work they produce in their primary field of study

• Demonstrate sophisticated critical analyses of literary texts, including an understanding of how a text displays a writer’s artistic techniques and the ability to incorporate those techniques into their own writing.

• Demonstrate thorough knowledge of the literary traditions of their primary genre and the ability to situate their own work within current literary conversation.

Coursework

This emphasis follows the Master of Fine Arts in Creative Writing and Media Arts (p. 282) Program Requirements. Students must complete the following coursework for this emphasis:

I. 12 hours of craft workshop: Students choose 4 workshops in their core genre

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH 5501</td>
<td>Magazine Editing</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5502</td>
<td>Magazine Nonfiction</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5575</td>
<td>Advanced Creative Writing: Creative Nonfiction</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 555K</td>
<td>Graduate Seminar In Creative Writing:Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 555N</td>
<td>Graduate Seminar: Prose Fiction</td>
<td>3</td>
</tr>
</tbody>
</table>

II. 6 hours of the interdisciplinary component. Students choose at least two craft, workshop, or production courses outside their core genre in English, Theatre, or Communication Studies.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH 432WI/5532</td>
<td>Advanced Creative Writing Prose</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 437WI/5537</td>
<td>Prose Forms</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5550K</td>
<td>Graduate Seminar: Creative Writing Prose</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 555N</td>
<td>Graduate Seminar: Prose Fiction</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 435WI/5535</td>
<td>Advanced Creative Writing Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 436WI/5536</td>
<td>Poetic Forms</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 555K</td>
<td>Graduate Seminar In Creative Writing:Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5548</td>
<td>External Internship</td>
<td>1-3</td>
</tr>
<tr>
<td>ENGLISH 5549B</td>
<td>Publication Practicum</td>
<td>1-3</td>
</tr>
<tr>
<td>ENGLISH 555J</td>
<td>Graduate Seminar English Language</td>
<td>3</td>
</tr>
</tbody>
</table>

Communication Studies Department

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM-ST 354</td>
<td>Introduction to Screenwriting ((for MFAs: COMM-ST 5597))</td>
<td>3</td>
</tr>
<tr>
<td>COMM-ST 454</td>
<td>Advanced Screenwriting ((For MFAs: COMM-ST 5598))</td>
<td>3</td>
</tr>
<tr>
<td>COMM-ST 385</td>
<td>Documentary Production</td>
<td>3</td>
</tr>
<tr>
<td>COMM-ST 457</td>
<td>Client-Based Media Production</td>
<td>3</td>
</tr>
<tr>
<td>COMM-ST 470</td>
<td>Directing</td>
<td>3</td>
</tr>
<tr>
<td>COMM-ST 471</td>
<td>Advanced Media Production</td>
<td>3</td>
</tr>
<tr>
<td>COMM-ST 5554</td>
<td>Graduate Seminar: Screenwriting</td>
<td>3</td>
</tr>
</tbody>
</table>

Theatre Department

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>THEATRE 400H</td>
<td>Special Problems In Theatre: Playwriting</td>
<td>1-6</td>
</tr>
<tr>
<td>THEATRE 437</td>
<td>Playwriting I</td>
<td>3</td>
</tr>
</tbody>
</table>
III. 12 hours of literature courses are required. 15 hours are recommended.

Students will choose from among more than 65 literature courses listed below. Their principal focus will be in the core genre in which they plan to write their final portfolio, but they may also reach into other genres as well. With their advisor's permission students may also choose courses from other departments.

<table>
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<tr>
<td>ENGLISH 5508</td>
<td>Harlem Renaissance</td>
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<tr>
<td>ENGLISH 5510</td>
<td>Black Women Writers</td>
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<td>ENGLISH 5512</td>
<td>Chaucer</td>
<td>3</td>
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<td>ENGLISH 5513</td>
<td>Renaissance Literature I</td>
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<tr>
<td>ENGLISH 5514</td>
<td>Milton</td>
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<td>Restoration And Early 18th-Century British Literature</td>
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<td>The Romantic Period</td>
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<td>ENGLISH 5517</td>
<td>Modern Poetry</td>
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<td>ENGLISH 5518</td>
<td>19th-Century American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5519</td>
<td>Teaching Writing: Theories, Histories, Contexts, Practices</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5522</td>
<td>Medieval Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5523</td>
<td>Renaissance Literature II</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5526</td>
<td>The Victorian Period</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5527</td>
<td>Contemporary Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5528</td>
<td>20th Century American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5534</td>
<td>Postcolonial Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 5550A</td>
<td>Graduate Seminar Medieval Literature I</td>
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<td>ENGLISH 5550B</td>
<td>Graduate Seminar Renaissance Literature I</td>
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</tr>
<tr>
<td>ENGLISH 5550C</td>
<td>Graduate Seminar Neo-Classical Literature I</td>
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</tr>
<tr>
<td>ENGLISH 5550D</td>
<td>Graduate Seminar 19th Century Literature I</td>
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<tr>
<td>ENGLISH 5550E</td>
<td>Graduate Seminar American Literature I</td>
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<tr>
<td>ENGLISH 5550F</td>
<td>Graduate Seminar Modern Literature I</td>
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</tr>
<tr>
<td>ENGLISH 5550G</td>
<td>Graduate Seminar Literary Criticism</td>
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</tr>
<tr>
<td>ENGLISH 5550H</td>
<td>Graduate Seminar Studies In Fiction I</td>
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<tr>
<td>ENGLISH 5550I</td>
<td>Graduate Seminar In Dramatic Literature I</td>
<td>3</td>
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<tr>
<td>ENGLISH 5550J</td>
<td>Graduate Seminar: History Of The English Language</td>
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<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>COMM-ST 339</td>
<td>Introduction to Film Theory</td>
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</tr>
<tr>
<td>COMM-ST 384</td>
<td>Documentary Film History</td>
<td>3</td>
</tr>
<tr>
<td>COMM-ST 391</td>
<td>The World(s) Of Alfred Hitchcock</td>
<td>3</td>
</tr>
<tr>
<td>COMM-ST 392</td>
<td>Topics in World Cinema</td>
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</tr>
<tr>
<td>COMM-ST 393</td>
<td>Topics in Sound &amp; Cinema</td>
<td>3</td>
</tr>
<tr>
<td>COMM-ST 394</td>
<td>Topics in Gender and Cinema</td>
<td>3</td>
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**Theatre Department**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<td>THEATRE 400M</td>
<td>Special Problems In Theatre: Theory And Criticism</td>
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<td>THEATRE 400N</td>
<td>Special Problems In Theatre: Dramaturgy</td>
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<tr>
<td>THEATRE 5506RR</td>
<td>French Drama And Theatre</td>
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</table>
IV. 6 hours of Thesis Portfolio: ENGLISH 5598A
V. 6 hours Electives

From the list of literary classes above, students complete sufficient credit hours to bring the total of all requirements to 42 credit hours. With advisor's approval, students may also select electives from other departments.
MFA in Creative Writing and Media Arts: Fiction Option

Student Learning Outcomes

Students graduating from this program will:

• Show mastery of storytelling craft through the creation of a full-length manuscript of poetry, fiction that: a) is structurally sound; b) is polished and complete; c) has a distinct voice and/or vision.
• Show evidence of effective problem-solving and revision strategies.
• Demonstrate a deliberate, masterful command of language, including: a) style; b) grammar and mechanics.
• Demonstrate, in the text or critical introduction, a proficiency in at least one genre outside of their primary field and the ability to apply the techniques of their secondary genres to the work they produce in their primary field of study.
• Demonstrate sophisticated critical analyses of literary texts, including an understanding of how a text displays a writer’s artistic techniques and the ability to incorporate those techniques into their own writing.
• Demonstrate thorough knowledge of the literary traditions of their primary genre and the ability to situate their own work within current literary conversations.

Coursework

This emphasis follows the Master of Fine Arts in Creative Writing and Media Arts Program Requirements. Students must complete the following coursework for this emphasis:

I. 12 hours of craft workshop: Students choose 4 workshops in their core genre

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<td>Prose Forms</td>
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<td>or ENGLISH 5537</td>
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<td>Graduate Seminar: Prose Fiction</td>
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II. 6 hours of the interdisciplinary component. Students choose at least two craft, workshop, or production courses outside their core genre in English, Theatre, or Communication Studies.

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Communication Studies Department

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<td>Advanced Screenwriting</td>
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<td>COMM-ST 385</td>
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Theatre Department

THEATRE 400H Special Problems in Theatre: Playwriting 1-6
THEATRE 437 Playwriting I 3
THEATRE 438 Playwriting II 3
THEATRE 415 Beginning Directing 3
THEATRE 5516A Technical Production for the Practitioner 3
THEATRE 5516B Technical Production for The Practitioner 3
THEATRE 5545 Professional Acting Techniques I 3
THEATRE 5565 Introduction to Professional Directing 3
THEATRE 5578 Professional Theatre Administration 3
THEATRE 5590H Directed Graduate Studies: Playwriting 3-6

III. 12 hours of literature courses are required. 15 hours are recommended.

Students choose from among more than 65 literature courses listed below. Their principal focus will be in the core genre in which they plan to write their final portfolio, but they may also reach into other genres as well. With their advisor’s permission, students may also choose courses from other departments.

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<td>ENGLISH 5514</td>
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<td>Restoration And Early 18th-Century British Literature</td>
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<td>Graduate Seminar Neo-Classical Literature I</td>
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<td>Graduate Seminar In 19th-Century Literature II</td>
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ENGLISH 5555H  Graduate Seminar Studies In Fiction II  3
ENGLISH 5555I  Graduate Seminar In Dramatic Literature II  3
ENGLISH 5555J  Graduate Seminar English Language  3

Communication Studies Department
COMM-ST 339  Introduction to Film Theory  3
COMM-ST 384  Documentary Film History  3
COMM-ST 391  The World(s) Of Alfred Hitchcock  3
COMM-ST 392  Topics in World Cinema  3
COMM-ST 393  Topics in Sound & Cinema  3
COMM-ST 394  Topics in Gender and Cinema  3

Theatre Department
THEATRE 400F  Special Problems In Theatre: History  1-6
THEATRE 400M  Special Problems In Theatre: Theory And Criticism  1-6
THEATRE 400N  Special Problems In Theatre: Dramaturgy  1-6
THEATRE 5506RR  French Drama And Theatre  3
THEATRE 5507  19Th-Century Continental Theatre  3
THEATRE 5508  20Th-Century Continental Theatre  3
THEATRE 5509  Russian Drama And Theatre  3
THEATRE 5510  History Of The American Theatre I  3
THEATRE 5511  History Of The American Theatre II  3
THEATRE 5512R  History Of The English Stage I  3
THEATRE 5513  History Of The English Stage II  3
THEATRE 5557  Theatre History I  3
THEATRE 5560  Theatre History II  3
THEATRE 5563  Text Analysis I  3
THEATRE 5564  Text Analysis II  3
THEATRE 5590M  Directed Graduate Studies: Theory And Criticism  3-6
THEATRE 5590N  Directed Graduate Studies: Dramaturgy  3-6

IV. 6 Hours of Thesis Portfolio: ENGLISH 5598A

V. 6 Hours Electives
From the list of literary classes above, students complete sufficient credit hours to bring the total of all requirements to 42 credit hours. With advisor’s approval, students may also select electives from other departments.
Master of Fine Arts: Creative Writing and Media Arts - Playwriting Option

Student Learning Outcomes

Students graduating from this program will:

- Show mastery of playwriting craft through the creation of a full-length manuscript of plays: a) is structurally sound; b) is polished and complete; c) has a distinct voice and/or vision.
- Show evidence of effective problem-solving and revision strategies.
- Demonstrate a deliberate, masterful command of language, including: a) style; b) grammar and mechanics.
- Demonstrate, in the text or critical introduction, a proficiency in at least one genre outside of their primary field and the ability to apply the techniques of their secondary genres to the work they produce in their primary field of study.
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Coursework

This emphasis follows the Master of Fine Arts in Creative Writing and Media Arts Program Requirements. Students must complete the following coursework for this emphasis:

I. 12 hours of craft workshop: Students choose 4 workshops in their core genre.

**Theatre Department**

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<td>THEATRE 415</td>
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<td>Technical Production for The Practitioner</td>
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<td>Technical Production for The Practitioner</td>
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<td>THEATRE 5545</td>
<td>Professional Acting Techniques I</td>
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<td>Introduction To Professional Directing</td>
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<td>THEATRE 5590H</td>
<td>Directed Graduate Studies: Playwriting</td>
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II. 6 hours of the interdisciplinary component. Students choose at least two craft, workshop, or production courses outside their core genre in English, Theatre, or Communication Studies.

**English**

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<td>Graduate Seminar: Prose Fiction</td>
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<td>ENGLISH 435WI/5535</td>
<td>Advanced Creative Writing Poetry</td>
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**Communication Studies Department**

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<td>COMM-ST 385</td>
<td>Documentary Production</td>
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III. 12 hours of literature courses are required. 15 hours are recommended.

Students choose from among more than 65 literature courses listed below. Their principal focus will be in the core genre in which they plan to write their final portfolio, but they may also reach into other genres as well. With their advisor’s permission, students may also choose courses from other departments.

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Theatre Department

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<td>Special Problems In Theatre: Theory And Criticism</td>
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<td>Special Problems In Theatre: Dramaturgy</td>
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<td>THEATRE 5510</td>
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THEATRE 5511    History Of The American Theatre II  3
THEATRE 5512R  History Of The English Stage I  3
THEATRE 5513    History Of The English Stage II 3
THEATRE 5557    Theatre History I 3
THEATRE 5560    Theatre History II 3
THEATRE 5563    Text Analysis I 3
THEATRE 5564    Text Analysis II 3
THEATRE 5590M  Directed Graduate Studies: Theory And Criticism 3-6
THEATRE 5590N  Directed Graduate Studies: Dramaturgy 3-6

IV. 6 Hours of Thesis Portfolio: ENGLISH 5598A
V. 6 Hours Electives

From the list of literary classes above, students complete sufficient credit hours to bring the total of all requirements to 42 credit hours. With advisor's approval, students may also select electives from other departments.
Master of Fine Arts: Creative Writing and Media Arts - Poetry Option

Student Learning Outcomes

Students graduating from this program will:

• Show mastery of storytelling craft through the creation of a full-length manuscript of poetry, fiction that: a) is structurally sound; b) is polished and complete; c) has a distinct voice and/or vision.
• Show evidence of effective problem-solving and revision strategies.
• Demonstrate a deliberate, masterful command of language, including: a) style; b) grammar and mechanics.
• Demonstrate, in the text or critical introduction, a proficiency in at least one genre outside of their primary field and the ability to apply the techniques of their secondary genres to the work they produce in their primary field of study.
• Demonstrate sophisticated critical analyses of literary texts, including an understanding of how a text displays a writer’s artistic techniques and the ability to incorporate those techniques into their own writing.
• Demonstrate thorough knowledge of the literary traditions of their primary genre and the ability to situate their own work within current literary conversations?

Coursework

This emphasis follows the Master of Fine Arts in Creative Writing and Media Arts Program Requirements. Students must complete the following coursework for this emphasis:

I. 12 hours of craft workshop: Students choose 4 workshops is their core genre

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II. 6 hours of the interdisciplinary component. Students choose at least two craft, workshop, or production courses outside their core genre in English, Theatre, or Communication Studies.

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<tr>
<td>ENGLISH 5555N</td>
<td>Graduate Seminar: Prose Fiction</td>
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<td>ENGLISH 5501</td>
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<td>ENGLISH 5502</td>
<td>Magazine Nonfiction</td>
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Communication Studies Department

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Theatre Department

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### Master of Fine Arts: Creative Writing and Media Arts - Poetry Option

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<td>Introduction To Professional Directing</td>
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### III. 12 hours of literature courses are required. 15 hours are recommended.

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<td>Renaissance Literature I</td>
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<td>ENGLISH 5514</td>
<td>Milton</td>
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<td>ENGLISH 5515</td>
<td>Restoration And Early 18th-Century British Literature</td>
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<td>ENGLISH 5516</td>
<td>The Romantic Period</td>
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<td>19th-Century American Literature</td>
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<td>Teaching Writing: Theories, Histories, Contexts, Practices</td>
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<td>Postcolonial Literature</td>
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<td>Graduate Seminar 19th Century Literature I</td>
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<td>Graduate Seminar Literary Criticism</td>
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### Communication Studies Department

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<td>Documentary Film History</td>
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<td>COMM-ST 391</td>
<td>The World(s) Of Alfred Hitchcock</td>
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<td>COMM-ST 392</td>
<td>Topics in World Cinema</td>
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<td>COMM-ST 393</td>
<td>Topics in Sound &amp; Cinema</td>
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<td>COMM-ST 394</td>
<td>Topics in Gender and Cinema</td>
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**Theatre Department**

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<td>THEATRE 400M</td>
<td>Special Problems In Theatre: Theory And Criticism</td>
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<td>Special Problems In Theatre: Dramaturgy</td>
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<td>THEATRE 5506RR</td>
<td>French Drama And Theatre</td>
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<td>Russian Drama And Theatre</td>
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**IV. 6 Hours of Thesis Portfolio: ENGLISH 5598A**

**V. 6 Hours Electives**

From the list of literary classes above, students complete sufficient credit hours to bring the total of all requirements to 42 credit hours. With advisor’s approval, students may also select electives from other departments.
Master of Fine Arts: Creative Writing and Media Arts - Screenwriting Option

Student Learning Outcomes

Students graduating from this program will:

• Show mastery of screenwriting craft through the creation of a full-length manuscript that: a) is structurally sound; b) is polished and complete; c) has a distinct voice and/or vision.
• Show evidence of effective problem-solving and revision strategies.
• Demonstrate a deliberate, masterful command of language, including: a) style; b) grammar and mechanics.
• Demonstrate, in the text or critical introduction, a proficiency in at least one genre outside of their primary field and the ability to apply the techniques of their secondary genres to the work they produce in their primary field of study.
• Demonstrate sophisticated critical analyses of literary texts, including an understanding of how a text displays a writer’s artistic techniques and the ability to incorporate those techniques into their own writing.
• Demonstrate thorough knowledge of the literary traditions of their primary genre and the ability to situate their own work within current literary conversations.

Coursework

This emphasis follows the Master of Fine Arts in Creative Writing and Media Arts Program Requirements. Students must complete the following coursework for this emphasis:

I. 12 hours of craft workshop: Students choose 4 workshops in their core genre

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<td>Client-Based Media Production</td>
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II. 6 hours of the interdisciplinary component. Students choose at least two craft, workshop, or production courses outside their core genre in English, Theatre, or Communication Studies.

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Theatre Department

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**III. 12 hours of literature courses are required. 15 hours are recommended.**

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<td>19th-Century American Literature</td>
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<td>ENGLISH 5519</td>
<td>Teaching Writing: Theories, Histories, Contexts, Practices</td>
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<td>ENGLISH 5522</td>
<td>Medieval Literature</td>
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<td>ENGLISH 5523</td>
<td>Renaissance Literature II</td>
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<td>ENGLISH 5526</td>
<td>The Victorian Period</td>
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<td>ENGLISH 5527</td>
<td>Contemporary Poetry</td>
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<td>ENGLISH 5528</td>
<td>20th Century American Literature</td>
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<td>ENGLISH 5534</td>
<td>Postcolonial Literature</td>
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<td>ENGLISH 555A</td>
<td>Graduate Seminar Medieval Literature II</td>
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<td>ENGLISH 555B</td>
<td>Graduate Seminar Renaissance Literature II</td>
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<td>ENGLISH 555C</td>
<td>Graduate Seminar Neo-Classical Literature I</td>
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<td>ENGLISH 555D</td>
<td>Graduate Seminar In 19th-Century Literature II</td>
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<td>ENGLISH 555E</td>
<td>Graduate Seminar American Literature II</td>
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<td>ENGLISH 555F</td>
<td>Graduate Seminar In Modern Literature II</td>
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<td>ENGLISH 555H</td>
<td>Graduate Seminar Studies In Fiction II</td>
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<td>ENGLISH 555I</td>
<td>Graduate Seminar In Dramatic Literature II</td>
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<tr>
<td>ENGLISH 555J</td>
<td>Graduate Seminar English Language</td>
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**Communication Studies Department**

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<tr>
<td>COMM-ST 339</td>
<td>Introduction to Film Theory</td>
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<tr>
<td>COMM-ST 384</td>
<td>Documentary Film History</td>
<td>3</td>
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<tr>
<td>COMM-ST 391</td>
<td>The World(s) Of Alfred Hitchcock</td>
<td>3</td>
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<tr>
<td>COMM-ST 392</td>
<td>Topics in World Cinema</td>
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<td>COMM-ST 393</td>
<td>Topics in Sound &amp; Cinema</td>
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<td>COMM-ST 394</td>
<td>Topics in Gender and Cinema</td>
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**Theatre Department**

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<td>THEATRE 400M</td>
<td>Special Problems In Theatre: Theory And Criticism</td>
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<td>THEATRE 400N</td>
<td>Special Problems In Theatre: Dramaturgy</td>
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<td>THEATRE 5506RR</td>
<td>French Drama And Theatre</td>
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<td>THEATRE 5507</td>
<td>19Th-Century Continental Theatre</td>
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<td>20Th-Century Continental Theatre</td>
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<td>THEATRE 5509</td>
<td>Russian Drama And Theatre</td>
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<td>THEATRE 5510</td>
<td>History Of The American Theatre I</td>
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<td>THEATRE 5511</td>
<td>History Of The American Theatre II</td>
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<td>THEATRE 5512R</td>
<td>History Of The English Stage I</td>
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<td>THEATRE 5513</td>
<td>History Of The English Stage II</td>
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<td>THEATRE 5557</td>
<td>Theatre History I</td>
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<td>THEATRE 5560</td>
<td>Theatre History II</td>
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<td>THEATRE 5563</td>
<td>Text Analysis I</td>
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<td>THEATRE 5564</td>
<td>Text Analysis II</td>
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<td>THEATRE 5590M</td>
<td>Directed Graduate Studies: Theory And Criticism</td>
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<tr>
<td>THEATRE 5590N</td>
<td>Directed Graduate Studies: Dramaturgy</td>
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**IV. 6 Hours of Thesis Portfolio: ENGLISH 5598A**

**V. 6 Hours Electives**

From the list of literary classes above, students complete sufficient credit hours to bring the total of all requirements to 42 credit hours. With advisor’s approval, students may also select electives from other departments.
Interdisciplinary Ph.D in English

English is an academic discipline eligible for full participation in UMKC's Interdisciplinary Ph.D. Program. Interested students should review the School of Graduate Studies catalog for general and discipline-specific admission criteria, academic regulations, and degree requirements and also contact the Department's I.Ph.D. Coordinator.

Suggested Focus Areas: American Studies; Manuscript and Print Culture; Medieval Studies; Rhetoric and Composition; Transatlantic Studies; Women's and Gender Studies.

English as a Primary Discipline coordinates well with the co-disciplines of Art History, History, and the Humanities Consortium.
Environmental Studies Program

Program Description
The Environmental Studies Program provides students with the most innovative preparation in urban environmental issues and sustainability. The ES program engages a diverse student body with a strong foundation in environmental and geosciences. It includes relationships between humans, society, and the environment. In addition to core courses in environmental science, environmental courses emphasizing the humanities and social sciences provide necessary balance for addressing physical Earth issues in a societal context. Undergraduate students gain essential life skills, an appreciation for complex environmental processes, and respect for the diversity of environmental challenges in both Environmental Studies BA and Environmental Science BS degrees.

The department has offered geography and geology courses since 1934. The department also offers a master of science degree in environmental and urban geosciences. Students who designate geosciences as their coordinating discipline for the interdisciplinary doctoral program must meet admission and other requirements available from the department. See the School of Graduate Studies section of the graduate catalog for more information about doctoral programs.

Faculty
Program Director:
Caroline P. Davies

Participating Architecture, Urban Planning and Design Faculty:
Joy Swallow, Michael Frisch, Sungyup Kim, and Jacob Wagner

Participating Biology Faculty:
Aaron Reed

Participating Business Faculty:
Sandy Price, David Renz, and Li Sun

Participating Chemistry Faculty:
Kathleen Kilway, and J. David VanHorn

Participating Engineering Faculty:
ZhiQiang Chen, John Kevern, Deborah O'Bannon, and Jerry Richardson

Participating Economics Faculty:
Mathew Forstater and Michael Kelsay

Participating Education Faculty:
A. Louis Odom

Participating Geosciences Faculty:
Jimmy Adegoke, Caroline Davies, Steven Driever, Syed Hasan, Alison Graettinger, Wei Ji, Jejung Lee, James Murowchick, Tina Niemi, and Fengpeng Sun

Participating History Faculty:
Brian Frehner and John Herron

Participating Law Faculty:
John Ragsdale and Irma Russell

Participating Philosophy Faculty:
James Sheppard

Participating Political Science Faculty:
Reginald Bassa

Undergraduate Degrees:
- Bachelor of Arts: Environmental Studies (p. 351)
- Bachelor of Science: Environmental Science (p. 356)
- Environmental Studies Minor (p. 361)
Courses

ENV-STDY 325 Cultural Perspectives on the Environment Credits: 3
This course explores the history of conservation practices in American agriculture from the 1700s through the present. Additionally, the course examines the past and present legal implications of environmental statutes for minority farmers from a social and environmental justice perspective.

Cross Listings: GEOG 325.

ENV-STDY 334 Gender and the Environment Credits: 3
This course provides a survey of different ways women relate to nature. The objectives of the course are: to understand historical relationships between women and nature in the western world, to understand different theoretical approaches to studying women and nature, to explore the geography of women's activism on behalf of the environment, and to understand how women's health is linked to the environment.

Cross Listings: GEOG 334.

ENV-STDY 412 Global Tourism Credits: 3
This course is a regional survey of world tourism. Topics include the uniqueness of place, the marketing of tourist destinations, and the cultural, economic, and environmental impacts on host societies.

Prerequisites: GEOG 105 or GEOG 200 or GEOG 202.

ENV-STDY 430 Soil and Groundwater Remediation Credits: 3

Prerequisites: GEOG 335 (or GEOLOGY 335).

ENV-STDY 450 Ecotoxicology Credits: 3
This course addresses the fundamentals of ecotoxicology, integrating the sciences of ecology and toxicology. Students will learn the biological basis for pollutant effects on individuals and populations of plants and animals, how pollutant intensity varies as a function of bioavailability, the basics of risk assessment, and how pollutant effects are modified by ecological interactions within communities and ecosystems. The ultimate goal of ecotoxicology is to predict the effects of pollution within an ecological context.

Prerequisites: BIOLOGY 108, CHEM 211, CHEM 212R.

ENV-STDY 499WI Environmental Studies Practicum Credits: 3
Students conduct research, participate in discussions, and prepare written reports on selected topics concerning the environment.

Prerequisites: Senior standing, RooWriter.
Family Studies

Program Director:
Deborah B. Smith Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=smith), Professor, Department of Sociology

Haag Hall (http://www.umkc.edu/virtualtour/haag-hall.asp), Room 208
5100 Rockhill Road
(816) 235-2529

Undergraduate
• Minor in Family Studies (p. 303)
Family Studies Minor

Student Learning Outcomes

Students graduating from this program will:

• Demonstrated understanding of family issues
• Translation of academic knowledge into lay-person friendly materials
• Demonstrated understanding of human development

Through its Family Studies Program, the College of Arts and Sciences offers a family studies minor for matriculated undergraduate students interested in the welfare and empowerment of American families. This interdisciplinary academic curriculum introduces participants to the sociological and psychological foundations of families, as well as the historical, political and social climates in which they exist. Students who complete the 18-hour (nine hours core and nine hours elective) course of study will have expanded career opportunities in areas such as human services, health care, law, communications, program development and academic research.

Students wishing to complete a minor must declare their intention to their advisor. Completion of the minor is recorded on the student's transcript.

The following classes can be used toward the nine credit hours of core requirements:

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<tr>
<th>Code</th>
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<tr>
<td>SOCIOL 310R/PSYCH 453P</td>
<td>Families And The Life Course</td>
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<td>SOCIOL 211</td>
<td>Social And Psychological Development Through The Life Cycle</td>
<td>3</td>
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<td>PSYCH 322</td>
<td>Child Psychology</td>
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</tr>
<tr>
<td>Other classes can be used toward the required electives for the family studies minor</td>
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<td>Total Credits</td>
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1 Note: These two classes are equivalent. Do not take both SOCIOL 310R and PSYCH 453P.
2 PSYCH 210 is a prerequisite for this course.

For a list of classes fulfilling the Family Studies Minor elective requirements each semester, please consult the website: http://cas.umkc.edu/familystudies/fspminor.asp or contact the Family Studies Program Director.
Department of Foreign Languages and Literatures

Scofield Hall, Room 211
711 E. 51 Street
(816) 235-1311
Fax: (816) 235-1312
fm-lg@umkc.edu
http://cas.umkc.edu/foreignlanguages

Mailing Address:
University of Missouri-Kansas City
Department of Foreign Languages and Literatures
Scofield Hall, Rm 216
711 E. 51 Street
Kansas City, MO 64110-2499

Department Chair:
K. Scott Baker

Professors Emeriti:
Patricia P. Brodsky, Rafael Espejo-Saavedra, Iman O. Khalil, Raymond T. Riva

Professors:
Louis Imperiale, Kathy M. Krause, Larson Powell

Associate Professors:
K. Scott Baker (chair), Gayle Levy, Nacer Khelouz, Alice R. Reckley Vallejos, Alberto Villamandos

Assistant Professors:
Matthew Edwards

Associate Teaching Professors:
Lindsay Myers

Department Description
The Department of Foreign Languages and Literatures offers programs of study leading to the bachelor of arts degree in Languages and Literatures, with an emphasis in French Language and Literature, Spanish Language and Literature, or Classical Languages and Cultures; and graduate-level work leading to a master of arts in Romance Languages and Literatures (French and Spanish). In addition, undergraduate minors are offered in French, German, German Studies, Spanish, and Classics.

Language instruction also is offered in Arabic, Ancient Greek, Italian and Latin.

Career Implications
Aside from pursuing teaching careers, holders of degrees in foreign languages are in demand by government, the media and international business in growing numbers, as the need for increased sophistication and expertise in international affairs continues to expand. Multinational companies and organizations now view foreign language skills as an asset in a prospective employee. In the past 10 years this notion has become widespread in such areas as business, industry, commerce, civil service, education, law, communications media and health services. The changing conditions of international economics, politics and communications indicate that this trend will continue.

Higher Educational Applications
Reading knowledge of a foreign language is a requisite for many graduate degrees. Foreign language proficiency, moreover, is gaining increasing importance on all levels of university instruction as curricula are internationalized. Scholars and professionals in many fields have long recognized the need for, and advantages of, foreign language competency for improved international communication and effective conduct of basic and applied research.

Special Resources
Credit by Exam
Beginning-level courses (110, 120) are not applicable toward requirements for the major. College credit for them may be earned by examination.
CLEP credit is available for French, German or Spanish (110 and 120). Contact Testing Services to arrange for the exam. A passing score is necessary to receive credit. (No more than 30 of a student's total hours may be earned by examination, and students with senior standing cannot earn credit via CLEP.)

Departmental testing or "Credit by Examination," is also available for 211-level credit. Students should first speak to the appropriate language advisor. The form is available online here (http://www.umkc.edu/registrar/forms/credit_by_exam.pdf). A minimum grade of C is necessary to receive credit.

**Study Abroad**

UMKC has exchange and study agreements with other institutions in many parts of the world. Students have an opportunity to spend a year or a semester of study at a number of universities around the globe, including at the University of Seville in Spain, the University of Lyon II in France, the University of Klagenfurt in Austria and the University of Veracruz in Xalapa, Mexico. Summer programs are held at the University of Buenos Aires, Argentina; the University of Granada, Spain; and the University of Lyon II, France.

The department encourages students to travel and study abroad on our programs or those offered by any accredited American university. It should be noted, however, that the department must approve in advance any courses taken abroad for major or graduate credit. Interested students should contact the appropriate departmental advisor.

**Language Resource Center**

A modern facility housing audio, video and computer equipment and both general use and specialized software is located in 109 Scofield Hall. The purpose of the lab is to supplement and support in-class foreign language learning. Tutoring services for students of French, German and Spanish are provided free of charge. Conversation hours are also held in the Language Resource Center. All language students are encouraged to take advantage of the resources of the LRC.

**Requirements for Teacher Certification in Foreign Languages**

Certification as a Foreign Language teacher (K-12) in either Kansas or Missouri requires that a student complete specific requirements in Spanish, French or German and the School of Education. A separate application for teacher education is required. For further information about the program, contact Dr. Reckley Vallejos, reckleya@umkc.edu, and the School of Education at (816) 235-2234.

**Faculty**

**Current Faculty**

**K. Scott Baker**  
Chair, Department of Foreign Languages and Literatures  
Associate Professor of German  
B.A. (University of Oregon); M.A., Ph.D. (University of Washington)  
215 Scofield Hall  
816-235-2823  
bakerks@umkc.edu (bakerks@umkc.edu)

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816-235-2327  
edwardsmatt@umkc.edu

**Louis Imperiale**  
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imperiale@umkc.edu

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khelouznacer@umkc.edu

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mailto:krausek@umkc.edu (krausek@umkc.edu)

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213 Scofield Hall
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Professors Emeriti
Patricia P. Brodsky
Professor Emerita of German
B.A. (University of Iowa); M.A., Ph.D. (University of California, Berkeley)

Rafael Espejo-Saavedra
Professor Emeritus of Spanish
B.A., M.A. (Occidental College); Ph.D. (University of California, Los Angeles)

Iman Osman Khalil
Associate Professor Emerita of German
M.A., Dr.Phil. (University of Munich)

Raymond T. Riva
Professor Emeritus of Spanish
B.A., Ph.D. (University of Illinois); A.M. (Middlebury College)

Undergraduate

Undergraduate Degrees:

- Bachelor of Arts: Languages and Literatures (Emphasis areas in French, German, Spanish and Classics) (p. 323)
- Minors in French, German, Spanish, or Classics (p. 329)
- Minor in German Studies (p. 327)
Graduate Degrees:

- Master of Arts in Romance Languages (p. 330)

Arabic Courses

ARABIC 110 Elementary Arabic I Credits: 5
Fundamentals of the language, essentials of conversation, grammar, practical vocabulary, useful phrases, and the ability to understand, read and write simple classical Arabic.

ARABIC 120 Elementary Arabic II Credits: 5
Continuation of ARABIC 110.
Prerequisites: ARABIC 110.

ARABIC 211 Second Year Arabic I Credits: 3
Further development of comprehension and communicative skills in the language. Readings of moderate difficulty and grammar review. Practice in writing. The goal is attainment of intermediate proficiency in the language.
Prerequisites: ARABIC 120.

ARABIC 221 Second Year Arabic II Credits: 3
Continuation of ARABIC 211.

ARABIC 280 Special Intermediate Arabic Topics I Credits: 1-3
Instruction of Arabic on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit.
Prerequisites: Elementary I and II college-level courses or equivalent.

ARABIC 290 Special Intermediate Arabic Topics II Credits: 1-3
Continuation of ARABIC 280. May not be repeated for credit.

French Courses

FRENCH 110 Elementary French I Credits: 3
The goals of this course are an ability to speak and to understand simple (spoken) French as well as to read and write simple prose.
FRENCH 110 - MOTR LANG 101: French I

FRENCH 120 Elementary French II Credits: 3
Continuation of FRENCH 110.
Prerequisites: FRENCH 110.

FRENCH 120 - MOTR LANG 102: French II

FRENCH 211 Second Year French I Credits: 3
Further development of comprehension and communicative skills in the language. Readings of moderate difficulty and grammar review. Practice in writing. The goal is attainment of intermediate proficiency in the language.
Prerequisites: FRENCH 120.

FRENCH 221 Second Year French II Credits: 3
Continuation of FRENCH 211.
Prerequisites: FRENCH 211.

FRENCH 280 Special Intermediate French Topics I Credits: 2-4
Instruction of French on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit.
Prerequisites: FRENCH 110, FRENCH 120.

FRENCH 290 Special Intermediate French Topics II Credits: 2-4
Continuation of FRENCH 280. May not be repeated for credit.
Prerequisites: FRENCH 280.
FRENCH 301 Introduction to French Literature Credits: 3
An introduction to the study of different genres of French literature and techniques of criticism. Readings include representative works of major authors from various periods. Strongly recommended for all majors, to be taken before or concurrently with other literature courses. Taught in French.

FRENCH 303 Masterpieces of French Literature I Credits: 3
An introduction to the history of French literature from the Middle Ages to 1800, stressing the historical context, the major literary movements, and the development of the various genres. Selected readings of the works of the major authors of the period. Taught in French.

FRENCH 304 Masterpieces of French Literature II Credits: 3
An introduction to the history of French literature from 1800 to the present stressing historical context, the major literary movements and the developments of the various genres. Selected readings of the works of major authors of the period. Taught in French.

FRENCH 315 Intermediate Composition and Conversation Credits: 3
Grammar review, practice in speaking and writing French, emphasis on writing. Required for major.

Prerequisites: FRENCH 221.

FRENCH 325 Intermediate Conversation and Composition Credits: 3
Grammar review, practice in speaking and writing French; emphasis on speaking. Required for major.

Prerequisites: FRENCH 221.

FRENCH 340WI French Texts in Translation Credits: 3
Seminar on French texts in translation. Class will be conducted in English and no knowledge of French is necessary. May be taken for major credit.

Prerequisites: ENGLISH 110, ENGLISH 225, RooWriter.

FRENCH 350 French Civilization I Credits: 3
An historical introduction to French civilization and culture with emphasis on historical, social and cultural development.

Prerequisites: FRENCH 221.

FRENCH 351 Introduction to French Phonetics Credits: 3
Drill and practice in pronunciation in class and in language laboratory.

Prerequisite: FRENCH 221.

FRENCH 352 French Civilization II: Contemporary French Civilization Credits: 3
An in-depth survey of contemporary French culture, including major historical events and movements that have shaped modern France, as well as geography, the political system, family life and education, economics, etc.

Prerequisites: FRENCH 221.

FRENCH 354 French Civilization III: Lyon, Crossroads of France and Europe Credits: 3
An introduction to French culture and civilization through the history, geography, culture and arts of Lyon and its region. Offered during the Study Abroad Program in Lyon.

FRENCH 380 Special Topics Credits: 1-3
Treatment of a particular genre or area of literature or language normally not offered through regular courses. May be repeated for credit when the topic changes.

FRENCH 414 Medieval Literature Credits: 3
Selected readings in various genres including epic, romance, theater and lyric. Emphasis will be placed on the intertextual relations and the cultural and historical context surrounding text production in the Middle Ages.

FRENCH 415 Advanced Conversation and Composition I Credits: 3
Practice in speaking and writing French, with attention to the elements of style. First semester required of all majors and second semester recommended. Both semesters required of prospective high school teachers. Either or both semesters may be repeated. No more than six hours of credit may be applied toward a degree.

Prerequisites: FRENCH 325.

FRENCH 417 16th-Century French Literature Credits: 3
Selected readings in prose and poetry from Marot through Astree. Authors may include Rabelais, Ronsard, du Bellay, Montaigne, Marguerite de Navarre.

FRENCH 424 19th-Century French Literature Credits: 3
Selected readings in various genres from Romanticism through Symbolism.

FRENCH 426 20th-Century French Literature Credits: 3
Selected readings from the Belle Epoque to the contemporary period.

FRENCH 435 Directed Discussions in Advanced French Credits: 3
Direct discussion on contemporary French culture. The discussions cover a wide range of topics on modern France: social, intellectual and cultural aspects. Students will participate and have the opportunity to observe and react within a cultural frame of reference. Open to advanced students of French and to teachers of the language for in-service training.
FRENCH 440 Medieval Romance Credits: 3
The various movements of French medieval romance from the 12th through 15th centuries with an emphasis on the 12th and 13th centuries. Analysis of literary technique and socio-historical context will be stressed. No knowledge of Old French is assumed.

FRENCH 443 Early French Theater Credits: 3
An examination of the development of French theater from Late Antiquity through the Renaissance, including religious and secular drama. The focus is on literary analysis of the dramatic texts, with some consideration of theater history and dramaturgy.
Prerequisites: FRENCH 221.

FRENCH 444 Renaissance Poetry Credits: 3
French poetry from the Grand Rhetoriqueurs through the Pleiade. Study of poetic forms, major poets and schools, and different approaches to analyzing poetry.
Prerequisites: FRENCH 221.

FRENCH 449 Survey of French Theater Credits: 3
A survey of the major French playwrights and their plays from the 17th through the 21st centuries. Historical and cultural influences will be covered as well as the specificities of the genre from the perspective of how the plays are performed and how we read them.

FRENCH 452 Medieval Poetry Credits: 3
A study of medieval poetry including religious and secular poetry, Provencal and Old French lyric, the influence of poetry in other genres such as romance and theater, later medieval poetry of the 14th and 15th centuries, as well as a discussion of the origins of the lyric.
Prerequisites: FRENCH 221.

FRENCH 455 Fin-De-Siecle and Belle Epoque Credits: 3
Study of the literary, cultural and historical context of this time period in French history, for example: Symbolism, Decadence, and the years 1900-1914.

FRENCH 457 20th Century French Narrative Credits: 3
The analysis of major currents in French 20th century narrative, especially fiction and film. Courses will be organized around narrative themes or historical events and will include social and cultural components.

FRENCH 463 19th-Century French Fiction Credits: 3
Studies in the birth, development and variation of French Romanticism. Readings include de Stael, Senancour, Constant, Hugo, Stendhal and Merimee. The advent of realism and naturalism in France. Readings include Balzac, Flaubert, Daudet, De Maupassant, and Zola.

FRENCH 472 Francophone Studies Credits: 3
Study of different national Francophone literatures. Reading may include writers from Quebec, Haiti, Africa, Louisiana, Vietnam, the French Indies, etc.

FRENCH 473 The Francophone World Credits: 3
This course is an introduction to a large spectrum of Francophone literatures cultures around the world with a focus on North and West Africa, Belgium, Quebec, French Antilles and Haiti.
Prerequisites: FRENCH 415.

FRENCH 474 Orientalism and Literature Credits: 3
This course focuses on the impact of Orientalism as a Western ideology of reconstruction of the Orient space.
Prerequisites: FRENCH 415.

FRENCH 480 Special Topics Credits: 1-3
Each time this course is offered a particular author, genre or area of literature will be treated. Topics will be announced in advance. May be repeated for credit when the topic changes.

FRENCH 490 Special Readings Credits: 1-3
Intensive readings in field or literary figure to be selected by the student in consultation with the instructor. Available to advanced students of French; available only when student cannot take regularly scheduled courses.
Prerequisites: 3.0 GPA.

FRENCH 499 Senior Seminar (Capstone) Credits: 3
Required for major. Covers seminal works of French literature in their historical and cultural context. Course content varies, but will include such elements as geography, politics, folklore, history of the language, architecture, art and music.
Prerequisites: 21 hours beyond first year.

FRENCH 5500CF Courts and Culture in the Middle Ages Credits: 3
This cluster course offers an interdisciplinary approach to the study of the Middle Ages, focusing on medieval cultures in Europe. Arranged around a series of themes, the cluster will read a variety of documentary and literary texts to investigate not only the "high culture" of the courts but also the interaction of people from various social backgrounds in Western Europe.
Prerequisites: admission to the graduate program in Romance Languages.
FRENCH 5512 17th-century French Literature Credits: 3
Selected readings in the literature of the 17th century, with an emphasis on non-dramatic works.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.
Cross Listings: FRENCH 412.

FRENCH 5513 18th-century French Literature Credits: 3
Emphasis on philosophical and social significance. Authors may include Marivaux, Beaumarchais, LeSage, L'Abbe Prevost, Montesquieu, Rousseau, Diderot.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.
Cross Listings: FRENCH 413.

FRENCH 5514 Medieval Literature Credits: 3
Selected readings in various genres including epic, romance, theater and lyric. Emphasis will be placed on the intertextual relations and the cultural and historical context surrounding text production in the Middle Ages.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.
Cross Listings: FRENCH 414.

FRENCH 5517 16th-century French Literature Credits: 3
Selected readings in prose and poetry from Marot through Astree. Authors may include Rabelais, Ronsard, du Bellay, Montaigne, Marguerite de Navarre.
Cross Listings: FRENCH 417.

FRENCH 5520 Non-Dramatic 17th-century French Literature Credits: 3
Evaluation and reading of the works of Malherbe and contemporaries, of Descartes and Pascal and contemporaries, and of the great authors at the height of the classical period.
FRENCH 5524 19th-century French Literature Credits: 3
Selected readings in various genres from Romanticism through symbolism.
FRENCH 5526 20th-century French Literature Credits: 3
Selected readings from the Belle Epoque to the contemporary period.
Cross Listings: FRENCH 426.

FRENCH 5540 Medieval Romance Credits: 3
The various movements of French medieval romance from the 12th through 15th centuries with an emphasis on the 12th and 13th centuries. Analysis of literary technique and socio-historical context will be stressed. No knowledge of Old French is assumed.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.
Cross Listings: FRENCH 440.

FRENCH 5543 Early French Theater Credits: 3
An examination of the development of French theater from Late Antiquity through the Renaissance, including religious and secular drama. The focus is on literary analysis of the dramatic texts, with some consideration of theater history and dramaturgy.
Prerequisites: Admission to the MA in Romance Languages Literature program.
Cross Listings: FRENCH 443.

FRENCH 5544 Renaissance Poetry Credits: 3
French Poetry from the Grand Rhetoriqueurs through the Pleiade. Study of poetic forms, major poets and schools, and different approaches to analyzing poetry.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.
Cross Listings: FRENCH 444.

FRENCH 5545 Epistolatory and the Novel Credits: 3
Explorations of the genre through the analysis of 17th- and 18th-century French novels. Introduced by a theoretical review.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.
Cross Listings: FRENCH 445.
FRENCH 5546 17th-century French Drama Credits: 3
The classical period: Emphasis on Corneille, Racine and Moliere.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

Cross Listings: FRENCH 446.

FRENCH 5547 19th-century French Poetry Credits: 3
The study of the poetry and dominant poetic movements of the 19th century, with special attention given to different approaches to its analysis.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

FRENCH 5548 20th century French Theater Credits: 3
Analysis of major currents of French theater of the 20th Century, with emphasis upon the postwar period and its movements.
Cross Listings: FRENCH 448.

FRENCH 5552 Medieval Poetry Credits: 3
A study of medieval poetry including religious and secular poetry, Provencal and Old French lyric, the influence of poetry in other genres such as romance and theater, later medieval poetry of the 14th and 15th centuries, as well as a discussion of the origins of the lyric.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

Cross Listings: FRENCH 452.

FRENCH 5553 Lyon, Crossroads of France and Europe Credits: 3
Lyon, Crossroads of France and Europe

FRENCH 5554 The Intellectual Origins of the French Revolution Credits: 3
Study of philosophical and political texts by Montesquieu, Rousseau, Voltaire, Diderot, etc. on government, society, language, freedom and equality.
Critical study of the Enlightenment.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

FRENCH 5555 Fin-De-Siecle and Belle Epoque Credits: 3
Study of the literary, cultural and historical context of this time period in French history, for example: Symbolism, Decadence, and the years 1900-1914.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

Cross Listings: FRENCH 455.

FRENCH 5556 20th-century French Poetry Credits: 3
The study of 20th-century poetry with special consideration given to different approaches to its analysis.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

Cross Listings: FRENCH 456.

FRENCH 5558 20th century French Narrative Credits: 3
The analysis of major currents in French 20th-century narrative, especially fiction and film. Courses will be organized around narrative themes or historical events and will include social and cultural components.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

Cross Listings: FRENCH 457.

FRENCH 5563 19th-century French Fiction Credits: 3
Studies in the birth, development, and variation of French Romanticism. Readings include de Stael, Senancour, Constant, Hugo, Stendhal and Merimee.
The advent of realism and naturalism in France. Readings include Balzac, Flaubert, Daudet, De Maupassant, and Zola.
Cross Listings: FRENCH 463.

FRENCH 5570 Studies in Critical Thought Credits: 3
Various currents of 20th-century literary criticism and their political and historical contexts.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

FRENCH 5571 Autobiography Credits: 3
Analysis of autobiographies and autobiographical texts such as diaries and memoirs together with theoretical texts on the genre. The concentration of different periods or issues may change from semester to semester, i.e. the art of autobiography as practiced by 20th-century writers, especially women.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

Cross Listings: FRENCH 471.
FRENCH 5572 Francophone Studies Credits: 3
Study of different national Francophone literatures. Reading may include writers from Quebec, Haiti, Africa, Louisiana, Vietnam, the French Indies, etc. 
**Prerequisites:** Admission to M.A. in Romance Languages and Literature program.

**Cross Listings:** FRENCH 472.

FRENCH 5580 Special Topics Credits: 1-3
Treatment of a particular genre or area of literature or language normally not offered through regular courses. May be repeated for credit when the topic changes.

FRENCH 5589 Survey of French Theater Credits: 3
A survey of the major French playwrights and their plays from the 17th through the 21st centuries. Historical and cultural influences will be covered as well as the specificities of the genre from the perspective of how the plays are performed and how we read them.

**Cross Listings:** FRENCH 449.

FRENCH 5590 Directed Studies in French Literature Credits: 1-3
Intensive readings in a field or literary figure to be selected by the student in consultation with the instructor. Available only when student cannot take regularly scheduled courses.

**Foreign Languages Courses**

FRN-LNG 180 Special Elementary Foreign Languages Topics I Credits: 2-5
Instruction in foreign languages at the elementary level. Essentials of grammar, basic conversation and reading, practical vocabulary. May include introduction of new methods of foreign language teaching, special texts, and languages not offered through regular courses.

FRN-LNG 190 Special Elementary Foreign Languages Topics II Credits: 2-5
Continuation of FRN-LNG 180.

**Prerequisites:** FRN-LNG 180.

FRN-LNG 280 Special Intermediate Foreign Languages Topics I Credits: 1-4
Instruction in foreign languages at the second-year intermediate level. Further development of comprehension and communicative skills. Readings of moderate difficulty and grammar review. May include introduction of new methods of foreign language teaching, special texts and topics, and new languages not offered through regular courses.

FRN-LNG 290 Special Intermediate Foreign Languages Topics II Credits: 1-4
Continuation of FRN-LNG 280.

FRN-LNG 302 Love and Death in European Medieval Literature Credits: 3
This course explores the intertwined themes of love and death in medieval European literature. Students will read key works from the medieval European traditions in English and will also be introduced to key concepts in the comparative study of medieval culture.

FRN-LNG 380 Special Topics Credits: 1-3
Treatment of a particular genre or area of literature or language normally not offered through regular courses. May be repeated for credit when the topic changes.

FRN-LNG 459 Foreign Languages Teacher Education Seminar Credits: 3
Supports the culminating Foreign Languages student teaching experiences, and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences, for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessment for individual learners. Peer and mentor collaboration in the analytical process are fundamental to the course objectives.

FRN-LNG 470A Internship in Foreign Languages Credits: 1-3
Intern experience under faculty supervision involving the use of the appropriate foreign language with a local firm, non-profit organization, etc. students will compile a portfolio of their work under the direction of the internship supervisor to be submitted for evaluation by their chosen faculty mentor.

**Prerequisites:** at least 9 hours prior FRN-LNG coursework in the appropriate language, junior standing.

FRN-LNG 470B School/Education Related Internship in Foreign Languages Credits: 1-3
Intern experience under faculty supervision involving the use of the appropriate foreign language at a local school. Students will keep a journal in the foreign language.

**Prerequisites:** at least 9 hours of prior FRN-LNG coursework in the appropriate language.

FRN-LNG 480 Special Topics Credits: 1-3
Each time this course is offered a particular genre or area of literature will be treated. Topics will be announced in advance. May be repeated for credit when the topic changes.
FRN-LNG 494 Methods of Teaching Foreign Languages Credits: 3
Teaching methods and materials for beginning and advanced classes in French, German, and Spanish. Modern language teaching methodology and material will be evaluated and demonstrated, together with effective use of the Language Resource Center, tapes, slides, film strips, and other audio-visual materials. Does not count toward a major in foreign language.

Prerequisites: 3.0 GPA in the foreign language.

FRN-LNG 5899 Required Graduate Enrollment Credit: 1

German Courses

GERMAN 110 Elementary German I Credits: 3
The goals of this course are an ability to speak and to understand simple (spoken) German as well as to read and write simple prose.

GERMAN 120 Elementary German II Credits: 3
Continuation of GERMAN 110.

Prerequisites: GERMAN 110.

GERMAN 211 Second-Year German I Credits: 3
Further development of comprehension and communicative skills in the language. Readings of moderate difficulty and grammar review. Practice in writing. The goal is attainment of intermediate proficiency in the language.

Prerequisites: GERMAN 120.

GERMAN 221 Second-Year German II Credits: 3
Continuation of GERMAN 211.

Prerequisites: GERMAN 211.

GERMAN 280 Special Intermediate German Topics I Credits: 2-4
Instruction of German on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit.

Prerequisites: GERMAN 110, GERMAN 120.

GERMAN 290 Special Intermediate German Topics II Credits: 2-4
Continuation of GERMAN 280. May not be repeated for credit.

Prerequisites: GERMAN 280.

GERMAN 300CZ The Other Europe Credits: 3
This course addresses a crucial, if often overlooked arena of history and culture: East-Central Europe. Open to all undergraduates, this course will explore the challenges of geopolitics, modernization, Western influences, multi-ethnic societies, and collective memory.

GERMAN 301 Introduction to Literary Studies Credits: 3
An introduction to the study of the different genres of German literature and techniques of criticism. Readings include representative works of major authors from various periods. Strongly recommended for all majors. To be taken before or concurrently with other literature courses. Taught in German.

GERMAN 305 Current Events in Germany Credits: 3
This course focuses on contemporary issues in Germany such as politics, the economy, foreign affairs, culture, science, education, etc. Various television news programs, news magazines, and newspapers will be the primary sources of information in this course.

Prerequisites: GERMAN 221.

GERMAN 306 Aspects Of Contemporary German Culture (Conducted In German) Credits: 3
The goal of the course is to familiarize the student with various aspects of contemporary culture in the German-speaking countries (Germany, Switzerland, Austria). The class will be structured around lectures, guest lectures, audiovisual presentations and discussions, emphasizing crosscultural comparisons.

GERMAN 307 From the Middle Ages to the Baroque Credits: 3
The goal of this course is to introduce students to the history of German literature from the Middle Ages to the Baroque, emphasizing the historical and social context and the development of various genres.

Prerequisites: GERMAN 221.

GERMAN 308 From the Enlightenment Through the 19th Century Credits: 3
The goal of this course is to introduce students to the history of German literature from the Enlightenment through the 19th century, emphasizing the historical and social context and the development of various genres.

Prerequisites: GERMAN 221.

GERMAN 310 Classical Period Of German Literature Credits: 3
Readings in the late 18th and 19th centuries with emphasis on Goethe and Schiller.
GERMAN 313 CC: Intro to German Studies Credits: 3
This cluster course explores major themes in German culture, history, and philosophy from the medieval period to the present. Concentrating on primary sources in English translation also introduces students to the methodologies of German Studies. German language ability not required, but class can count toward German major for students who do the written work in German.
**Prerequisites:** ENGLISH 110 (or HISTORY 206).

GERMAN 314CC Weimar Culture: Gender and Modernity in Central Europe Credits: 3
A course concerned with the culture of Weimar Germany (1919-1933), a period of crucial importance not only for German history but also for European and world history. Examines how film, advertising, theater set design, painting, photography and other media sought to re-imagine gender identities, foster new cultural forms, and transform economic relations during the Roaring Twenties in Germany.

GERMAN 315 Intermediate Conversation and Composition I Credits: 3
Practice in speaking and writing German; emphasis on idiomatic usage. Required for major.
**Prerequisites:** GERMAN 221.

GERMAN 325 Intermediate Conversation and Composition II Credits: 3
Continuation of GERMAN 315. Required for major.
**Prerequisites:** GERMAN 315.

GERMAN 335 Commercial German Credits: 3
The class covers business practices and correspondence in the German language; special vocabulary of business, economics, banking, and their contextualization in the European Union. It will also include refinement of grammatical and stylistic skills.
**Prerequisites:** GERMAN 221.

GERMAN 340 Society and Literature in 20th-Century Germany Credits: 3
Conducted in English with English translations. Literary currents and figures in 20th-century Germany against their social and political background, from the turn of the century to the postwar period. Reading and discussion of major works by such authors as Thomas Mann, Hesse, Kafka, Rilke, Brecht, Boll, Grass, Hochhuth and Weiss. Open to students of all disciplines. Not for major credit in German.

GERMAN 341 German Film Credits: 3
This course introduces students to the important contributions of German films to the development of movies as a unique literary art form. The class will cover important terms and concepts in film theory, the specifically German context of film, and important themes and periods in German film history. Taught in English with subtitled films.

GERMAN 342 Contemporary German Film 1980 Credits: 3
This course will introduce students to the important role film has played in the public discourse about German society immediately prior to reunification in the 1980s and during the turbulent social adjustments in unified Germany after 1990. Lectures and readings in the first week will cover important terms and concepts in film theory as well as provide background for the specific German context of film history. The class will treat film in the 1980s in terms of continuations of and liberations from the New German Cinema of the 1970s in West Germany, and in the context of state censorship and sponsorship of film in East Germany. We will approach movies from the 1990s and 2000s by accessing their depiction of historical and contemporary Germany through the lens of reunification, and we will examine issues of German identity especially as contextualized by reunification and multiculturalism. The course will be taught in English with subtitled films.
**Prerequisites:** GERMAN 315.

GERMAN 343 Eastern European Film In Context Credits: 3
The course covers themes in film from 1945 to present between the Baltic and the Balkans, including war, socialism, literary nationalisms, irony, and everyday life. The formal characteristics of film are also discussed.

GERMAN 344 Scandinavian Film Credits: 3
The course covers film in Scandinavia, from silent to contemporary movies. The relation of Scandinavian film to literature, art, social and political movements, as well as the economy will be discussed.

GERMAN 380 Special Topics Credits: 1-3
Treatment of a particular genre or area of literature or language normally not offered through regular courses. May be repeated for credit when the topic changes.

GERMAN 401 Bertolt Brecht Credits: 3
Covers major works by Brecht in their social and historical context. May focus on a specific genre or survey parts or all of Brecht’s career. Discussions and readings in German.
**Prerequisites:** GERMAN 315.
GERMAN 410 Music in German Culture Credits: 3
This course examines the role of music in German national self-definition from late 18th century to the present. The political and ideological role of music will be examined from 1789 to National Socialism, the GDR and reunification, including the gendering of music as feminine in Romanticism, and modernism. Music as it relates to the public and private, as well as collective and individual experiences will also be explored. Different genres and media will be discussed, from opera, art song, and cabaret to ballads and film; literary works thematizing music will be read.
Prerequisites: GERMAN 315.

GERMAN 411 Romanticism Credits: 3
Main currents and authors from the Romantic school, 1780-1820.

GERMAN 412 The German Novelle Credits: 3
An examination of representative novellen of the 19th and 20th centuries. Special emphasis on the study of form.

GERMAN 414 German Lyric Poetry Credits: 3
Lyric poetry from its beginnings to the present. Emphasis on 19th and 20th centuries.

GERMAN 415 Advanced Conversation and Composition I Credits: 3
Practice in speaking and writing German, with attention to the elements of style. Continued in GERMAN 425. First semester required of all majors and second semester recommended. Both semesters required of prospective high school teachers. Either or both semesters may be repeated. No more than six hours of credit may be applied toward a degree.
Prerequisites: GERMAN 325.

GERMAN 420 German Enlightenment Drama Credits: 3
This course covers plays, dramatic theories and theater history in the German-speaking countries 1730-1780. Emphasis will be placed on the theater as a bourgeois instrument of public discourse.
Prerequisites: GERMAN 315.

GERMAN 421 19th-Century Drama Credits: 3
Kleist through Hauptmann.

GERMAN 422 Contemporary Drama Credits: 3
This course will provide students with a survey of the most important dramatic movements of the 20th century. It will proceed chronologically through Expressionism, the Brechtian theatre of alienation, documentary theater and post-modernist theater.
Prerequisites: GERMAN 221.

GERMAN 425 Advanced Conversation and Composition II Credits: 3
Continuation of GERMAN 415. Required for teacher certification in German.
Prerequisites: GERMAN 415.

GERMAN 426 20th-Century German Literature Credits: 3
Selected readings from Neo-Romanticism to the present.

GERMAN 453 Women's Voices in Germany and Austria Credits: 3
The course focuses on the role of women in German and Austrian society from the Roman era to the present, primarily through the examination of literary texts by women.
Prerequisites: GERMAN 221.

GERMAN 480 Special Topics Credits: 1-3
Each time this course is offered a particular author, genre or area of literature will be treated. Topics will be announced in advance. May be repeated for credit when the topic changes.

GERMAN 481 East German (DEFA) Film Credits: 3
The course covers East German film from 1945-1989. Differences between films produced in East Germany and Soviet and other Eastern European cinemas will be discussed. Historical, political and cultural influences on film will be analyzed through multiple genres including popular, artistic, pedagogical and critical.

GERMAN 490 Special Readings Credits: 1-3
Intensive readings in a field or literary figure to be selected by the student in consultation with the instructor. Available only to advanced students of German when students cannot take regularly scheduled courses.
Prerequisites: 3.0 GPA.

GERMAN 499 Senior Seminar (Capstone) Credits: 3
Required for major. Covers seminal works of German literature in their historical and cultural context. Course content varies, but will include such elements as geography, politics, folklore, history of the language, architecture, art and music.
Prerequisites: 21 hours beyond first year.
Greek Courses
GREEK 110 Elementary Ancient Greek I Credits: 3
The goal of this course is an ability to read classical Greek. The student will be introduced to the fundamentals of grammar and the basic vocabulary of the language and will do exercises in the reading and writing of sentences. Continuous passages of Greek will be presented by the end of the semester.

GREEK 120 Elementary Ancient Greek II Credits: 3
A continuation of the study of the grammar and vocabulary of classical Greek, with an increasing emphasis on developing skills in translation. By the middle of the semester students will be introduced to selections from Plato, Herodotus or Homer.
Prerequisites: GREEK 110.

GREEK 211 Intermediate Ancient Greek I Credits: 3
Instruction of Greek on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit.
Prerequisites: GREEK 120.

GREEK 211 Intermediate Ancient Greek II Credits: 3
Continuation of GREEK 211. May not be repeated for credit.
Prerequisites: GREEK 211.

GREEK 301 Herodotus Credits: 3
Selected readings in Ancient Greek from Herodotus' Histories.
Prerequisites: GREEK 211.

GREEK 302 Homer Credits: 3
Selected readings in Ancient Greek from Homer's Iliad or Odyssey.
Prerequisites: GREEK 211.

GREEK 310 Selected Readings in Ancient Greek and Rhetoric Credits: 3
Selected readings in Ancient Greek from works by Plato, Aristotle, or the Attic Orators.
Prerequisites: GREEK 211.

GREEK 311 Drama and Lyric Poetry Credits: 3
Selected readings in Ancient Greek from plays by Aeschylus, Sophocles, Euripides, or the Lyric Poets.
Prerequisites: GREEK 211.

GREEK 312 Greek Narrative Prose Credits: 3
Selected readings in Ancient Greek from Herodotus, Thucydides, Xenophon, Lucian, etc.
Prerequisites: GREEK 211.

GREEK 490 Special Readings in Greek Credits: 1-3
Intensive readings in period or genre or literary figure to be selected by the student in consultation with the instructor. Available only to advanced Greek students.

Italian Courses
ITALIAN 110 Elementary Italian I Credits: 3
Intended to give the student the ability to read prose of ordinary difficulty and to understand and speak simple Italian.

ITALIAN 120 Elementary Italian II Credits: 3
Continuation of ITALIAN 110.
Prerequisites: ITALIAN 110.

ITALIAN 211 Second Year Italian I Credits: 3
Further development of comprehension and communicative skills in the language. Readings of moderate difficulty and grammar review. Practice in writing. The goal is attainment of intermediate proficiency in the language.
Prerequisites: ITALIAN 120.

ITALIAN 221 Second Year Italian II Credits: 3
Prerequisites: ITALIAN 211.

ITALIAN 280 Special Intermediate Italian Topics I Credits: 1-3
Instruction of Italian on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit.
Prerequisites: ITALIAN 110, ITALIAN 120.
ITALIAN 290 Special Intermediate Italian Topics II Credits: 1-3
May not be repeated for credit.
Prerequisites: ITALIAN 280.

Latin Courses
LATIN 110 Elementary Latin I Credits: 3
Elementary Latin I introduces students with no previous Latin experience to the fundamentals of Latin grammar. The course is continued with LATIN 120.
LATIN 120 Elementary Latin II Credits: 3
Elementary Latin II is a continuation of LATIN 110. This course focuses on the fundamentals of Latin grammar and morphology, and students will read longer Latin passages.
Prerequisites: LATIN 110.
LATIN 211 Second Year Latin Readings I Credits: 3
This course introduces students to extended readings from Roman authors in Latin. Students' knowledge of basic Latin grammar, vocabulary, and morphology will be reviewed and reinforced.
Prerequisites: LATIN 120.
LATIN 221 Second Year Latin Readings II Credits: 3
Prerequisites: LATIN 211.
LATIN 280 Special Intermediate Latin Topics I Credits: 2-4
Instruction of Latin on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit.
Prerequisites: LATIN 110, LATIN 120.
LATIN 290 Special Intermediate Latin Topics II Credits: 2-4
Continuation of LATIN 280. May not be repeated for credit.
Prerequisites: LATIN 280.
LATIN 301 Virgil Credits: 3
Selected readings in Classical Latin from the works of Virgil.
Prerequisites: LATIN 211.
LATIN 302 Ovid Credits: 3
Selected readings in Classical Latin from Ovid's Metamorphoses.
Prerequisites: LATIN 211.
LATIN 311 Prose Fiction and Epistolography Credits: 3
Selected readings in Classical Latin from Apuleius, Cicero, Petronius, Pliny, etc.
Prerequisites: LATIN 211.
LATIN 314 Lyric and Elegiac Poetry Credits: 3
Selected readings in Classical Latin from Catullus, Horace, Martial, Ovid, etc.
Prerequisites: LATIN 211.
LATIN 490 Special Readings In LatinCredits: 1-3
Intensive readings in period or genre or literary figure to be selected by the student in consultation with the instructor. Available only to advanced Latin students.

Spanish Courses
SPANISH 110 Elementary Spanish I Credits: 3
The goals of this course are an ability to speak and to understand simple (spoken) Spanish as well as to read and write simple prose.
SPANISH 110 - MOTR LANG 103: Spanish I
SPANISH 120 Elementary Spanish II Credits: 3
Continuation of SPANISH 110.
**Prerequisites:** SPANISH 110.

SPANISH 120 - MOTR LANG 104: Spanish II

SPANISH 211 Second Year Spanish I Credits: 3
Further development of comprehension and communicative skills in the language. Readings of moderate difficulty and grammar review. Practice in writing. The goal is attainment of intermediate proficiency in the language.
**Prerequisites:** SPANISH 120.

SPANISH 216 Spanish For The Health Sciences Credits: 3
This course will enable the student to converse with Hispanic patients and/or hospital personnel in situations such as admissions, patient care, lab work as ordered by a physician or dentist, emergency room procedures, etc. In addition, medical readings in Spanish will give professional and paraprofessional students an increased vocabulary related to the many fields within the health sciences. This course will satisfy one semester of the AS language requirement.
**Prerequisites:** One year of college Spanish.

SPANISH 221 Second Year Spanish II Credits: 3
Continuation of SPANISH 211.

SPANISH 280 Special Intermediate Spanish Topics I Credits: 2-4
Instruction of Spanish on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit.
**Prerequisites:** Elementary I and II college-level courses.

SPANISH 290 Special Intermediate Spanish Topics II Credits: 2-4
Continuation of SPANISH 280. May not be repeated for credit.

SPANISH 301 Introduction To Literary Studies Credits: 3
Emphasis will be placed on the study of literary theory and the philosophical ideas behind the literary movements, their relations and differences. A representative work or works of each genre will be thoroughly studied and analyzed. Critical reports will be written about different features of the literary works under consideration. Strongly recommended for all majors, to be taken before 400-level literature courses.
**Prerequisites:** SPANISH 315.

SPANISH 315 Intermediate Conversation And Composition I Credits: 3
Grammar review, practice in speaking and writing Spanish; emphasis on idiomatic usage and practical vocabulary. Required for major.
**Prerequisites:** SPANISH 221.

SPANISH 325 Intermediate Conversation And Composition II Credits: 3
Continuation of SPANISH 315. Required for major.
**Prerequisites:** SPANISH 315.

SPANISH 350 Continental Spanish Civilization Credits: 3
General cultural characteristics of Spain. Readings from representative literary works.

SPANISH 351 Latin American Civilization Credits: 3
Historical development of Latin America. Readings from representative literary works.

SPANISH 365 The Search For Mexican Identity Credits: 3
The goal of the course is to familiarize the student with the poignant search for self awareness and definition witnessed in the letters and fine arts of Mexico in the 20th-century. Readings will include works by Vasconcelos, Reyes, Ramos, Paz, Rulfo and Fuentes, and will be complemented by slide presentations of pertinent works by major artists.

SPANISH 373 History Of Spanish Literature I Credits: 3
A study of the development of Spanish peninsular literature from the Middle Ages to 1700.
**Prerequisites:** SPANISH 315 SPANISH 325.

SPANISH 374 History Of Spanish Literature II Credits: 3
A study of the development of Spanish peninsular literature from 1700 to present.
**Prerequisites:** SPANISH 315 SPANISH 325.

SPANISH 380 Special Topics Credits: 1-3
Treatment of a particular genre or area of literature or language normally not offered through regular courses. May be repeated for credit when the topic changes.
SPANISH 383 Introduction To Spanish American Literature I Credits: 3
The colonial period. Selected readings in historical and literary material from the time of the conquest to the period of struggle for independence. **Prerequisites:** SPANISH 315.

SPANISH 384 Introduction To Spanish American Literature II Credits: 3
The 19th and 20th-centuries. Selected readings from prose and poetry of Spanish-American writers. **Prerequisites:** SPANISH 315.

SPANISH 385 Commercial Spanish Credits: 3
Business practices in correspondence in the Spanish language; special vocabulary of business, trade, banking and administration. Refinement of grammatical and stylistic skills. Subjects treated include price inquiries, quotations, offers, orders, complaints, administrative, banking and diplomatic correspondence. **Prerequisites:** SPANISH 221.

SPANISH 403 History of the Spanish Language Credits: 3
An introduction to the history of the Spanish language from Latin to the present, with an overview of dialects in the Peninsula and in the Americas. **Prerequisites:** SPANISH 325 or higher grammar class.

SPANISH 414 Early 20th Century Peninsular Literature: From the Generation of 1898 to Surrealism Credits: 3
Selected readings in Spanish narrative, poetry, drama and philosophical essay from the beginning of the 20th Century to the Avant-Garde movements in the 1930’s.

SPANISH 415 Advanced Conversation And Composition I Credits: 3
Continued practice in speaking and writing Spanish, with attention to the elements of style. Continued in SPANISH 425. First semester required of all majors and second semester recommended. Both semesters required of prospective high school teachers. Either or both semesters may be repeated with the consent of the instructor and the Spanish section head. No more than six hours credit may be applied towards a degree. **Prerequisites:** SPANISH 325.

SPANISH 416 Medieval Spanish Literature Credits: 3
From the Cantar de Mio Cid to 1499.

SPANISH 417 Spanish-American Lyric Poetry Credits: 3
A survey of poetry in Spanish America from Colonial times to World War II, including a study of the most representative poets and their writings.

SPANISH 418 Romantic Movement In Spain Credits: 3
The origin and development of romantic literature against the historical and ideological background of the first half of the 19th century. Various literary genres will be studied; these will include works by Rivas, Espronceda, Larra, Zorrilla, Gil y Carrasco, Becquer and others.

SPANISH 420 Cervantes' Don Quixote, Part I Credits: 3
An intensive reading of the first part of Cervantes’ novel, Don Quixote.

SPANISH 421 Cervantes'Don Quixote, Part II Credits: 3
An intensive reading of the second part of Cervantes’ novel, Don Quixote. Part One is not a prerequisite.

SPANISH 425 Advanced Conversation And Composition II Credits: 3
Continuation of SPANISH 415. See SPANISH 415. Required for teacher certification in Spanish. **Prerequisites:** SPANISH 415.

SPANISH 426 Golden Age Drama Credits: 3
The development of the Spanish drama from Lope’s youth to the death of Calderon.

SPANISH 427 Pre-Columbian And Spanish Colonial Literature Credits: 3
A study of the pre-Columbian works in drama, narrative, and poetry (Popol Vuh, Apu-Ollantay, Incan and Aztec poetry) leading into a survey of Spanish-American colonial literature.

SPANISH 428 Contemporary Spanish Poetry Credits: 3
A comprehensive and intensive study of 20th-century Spanish poetry. Poets and poetry will be studied in the light of literary movements, foreign influences, political tendencies and philosophical ideas.

SPANISH 429 The Novel Of The Mexican Revolution Credits: 3
The revolution as the principal focus of 20th-century Mexican fiction. The course will examine both the evolving understanding of the event/process and the sophistication of narrative technique employed in its presentation. Among the writers to be studied are Azuela, Guzman, Lopez y Fuentes, Yanez, Revueltas, Rulfo and Fuentes.

SPANISH 430 Spanish Mysticism Credits: 3
An examination of the development of mysticism in Oriental and Occidental civilizations, with emphasis on the great periods of mystic experience as reflected in the literary production of the Spanish Golden Age. Readings could include the works of Fray Luis de Granada, Fray Luis de Leon, Saint John of the Cross and Saint Teresa of Avila.
SPANISH 431 The Golden Age Novel Credits: 3
A study of major prose works of the Golden Age. Possible topics include authorship, innovative narrative techniques, textual strategies and
metafiction issues. Readings could include works by Alfonso Martinez de Toledo, Diego de San Pedro, Fernando de Rojas, Francisco Delicado,
Cervantes, and Lope de Vega.

SPANISH 432 Pastoral Literature Credits: 3
A study of the development of pastoral literature during the Spanish Golden Age. Possible texts: Juan del Encina’s Eclogues, Montemayor’s Los siete
libros de la Diana and Cervantes’ Galatea. These works will be examined within their historical and cultural context.

SPANISH 433 Cervantes' Exemplary Novels Credits: 3
A study of Cervantes' Exemplary Novels within the context of 17th-Century Spain. Attention will be paid to interpretive possibilities and how knowledge of
historical contexts might influence readings of this rich and varied cultural output.

SPANISH 434 The Picaresque Novel Credits: 3
A study of the development of picaresque fiction during the Spanish Golden Age. The course deals with novelists principally active during the Baroque
period such as Mateo Aleman, Francisco Lopez de Ubeda, Miguel de Cervantes, and Francisco de Quevedo.

SPANISH 435 Peninsular Poetry Credits: 3
This course is a survey of poetics and poetry in Spain from the Reconquest to the present, with emphasis on socio-historical contexts and
movements. It examines theoretical and methodological approaches to literary analysis and also provides practical experience in exploring poetic
texts. Students will analyze a wide spectrum of poems, while discussing the cultural, philosophical, linguistic, political and ethical considerations that
surround the reception of a text.

SPANISH 436 Spain's Transition to Democracy: Literature and Film Credits: 3
This course reviews the cultural production between the death of Francisco Franco in 1975 and the entrance in the European Union in film, literature
and music, within its historical and political context.

SPANISH 450 Modern Classics Of Latin American Literature Credits: 3
The goal of the course is to familiarize the student with the principal Latin American writers of the modern period. The focus will be dual: the
progressive sophistication of literary technique and the refinement of social conscience. Among the authors to be studied are: Asturias, Borges,
Carpentier, Cortazar, Donoso, Fuentes, Garcia Marquez, Paz, Rulfo and Vargas Llosa.

SPANISH 453 Spanish-American Short Story Credits: 3
A study of Spanish-American short stories from Romanticism to the present.

SPANISH 460 U.S.-Latino Literature Credits: 3
An interdisciplinary approach to U.S.-Latino Studies, including both literary and cultural texts. The course will be taught in English, the language in
which the texts are produced.

SPANISH 480 Special Topics Credits: 1-3
Each time this course is offered a particular genre or area of literature will be treated. Topics will be announced in advance. May be repeated for credit
when the topic changes.

SPANISH 490 Special Readings Credits: 1-3
Intensive readings in field or literary figure to be selected by the student in consultation with the instructor. Available, by permission only, to advanced
students of Spanish; available only when student cannot take regularly scheduled courses.

Prerequisites: 3.0 GPA.

SPANISH 499 Senior Seminar (Capstone) Credits: 3
Required for major. Covers seminal works of Peninsular and Latin American literature in their historical and cultural context. Course content varies, but
will include such elements as geography, politics, folklore, history of the language, architecture, art and music. To be taken during final Fall Semester
of residence.

Prerequisites: 18 hours beyond first year.

SPANISH 503 History of the Spanish Language Credits: 3
An introduction to the history of the Spanish language from Latin to the present, with an overview of dialects in the Peninsula and in the Americas.

Prerequisites: Spanish 325 or higher grammar class.

SPANISH 514 Spanish Literature Credits: 3
Selected readings in Spanish narrative, poetry, drama and philosophical essay from the beginning of the 20th Century to the Avant-Garde movements
in the 1930’s.

SPANISH 516 Medieval Spanish Literature Credits: 3
A study of selected medieval masterpieces in their Old Spanish form, with special emphasis on Romances, the Cantar de Mio Cid La Celesitina, El
Corbacho, Libro del buen amor, etc. Includes a short history of the Spanish language.

SPANISH 519 Federico Garcia Lorca Credits: 3
A study in depth of the poetry and drama of Federico Garcia Lorca.
SPANISH 5520 Cervantes' Don Quixote, Part 1 Credits: 3
An intensive reading of the first part of Cervantes' novel, Don Quixote.

SPANISH 5521 Cervantes' Don Quixote, Part II Credits: 3
An intensive reading of the second part of Cervantes' novel, Don Quixote. Part One is not a prerequisite.

SPANISH 5526 Golden Age Drama Credits: 3
A study in depth of the creation of national theater by Lope de Vega and his followers.

SPANISH 5527 Pre-Columbian and Spanish Colonial Literature Credits: 3
A study of pre-Columbian works in drama, narrative, and poetry (Popol Vuh, Apu-Ollantay, Incan and Aztec poetry) along with a survey of Spanish-American colonial literature.

SPANISH 5528 Contemporary Spanish Poetry Credits: 3
A comprehensive and intensive study of 20th-century Spanish poetry. The poets and their poetry will be studied in the light of literary movements, foreign influences, political tendencies and philosophical ideas.

SPANISH 5529 Novel of the Mexican Revolution Credits: 3
The revolution as the principal focus of 20th-century Mexican fiction. The course will examine both the evolving understanding of the event/process and the sophistication of narrative technique employed in its presentation. Among the writers to be studied are Azuela, Guzman, Lopez y Fuentes, Yanez, Revueltas, Rulfo and Fuentes.

SPANISH 5530 Spanish Mysticism Credits: 3
An examination of the development of mysticism in Oriental and Occidental civilizations, with emphasis on the great periods of mystic experience as reflected in the literary production of the Spanish Golden Age. Readings could include the works of Fray Luis de Granada, Fray Luis de Leon, Saint John of the Cross and Saint Teresa of Avila.

SPANISH 5531 The Golden Age Novel Credits: 3
A study of major prose works of the Golden Age. Possible topics include authorship, innovative narrative techniques, textual strategies and metafiction issues. Readings could include works by Alfonso Martinez de Toledo, Diego de San Pedro, Fernando de Rojas, Francisco Delicado, Cervantes, and Lope de Vega.

SPANISH 5532 Pastoral Literature Credits: 3
A study of the development of pastoral literature during the Spanish Golden Age. Possible texts: Juan del Encina's Eclogues, Montemayor's Los siete libros de la Diana and Cervantes' Galatea. These works will be examined within their historical and cultural context.

SPANISH 5533 Cervantes' Exemplary Novels Credits: 3
A study of Cervantes' Exemplary Novels within the context of 17th Century Spain. Attention will be paid to interpretive possibilities and how knowledge of historical contexts might influence readings of this rich and varied cultural output.

SPANISH 5534 The Picaresque Novel Credits: 3
A study of the development of picaresque fiction during the Spanish Golden Age. The course deals with novelists principally active during the Baroque period such as Mateo Aleman, Francisco Lopez de Ubeda, Miguel de Cervantes, and Francisco de Quevedo.

SPANISH 5535 Peninsular Poetry Credits: 3
This course is a survey of poetics and poetry in Spain from the Reconquest to the present, with emphasis on sociohistorical contexts and movements. It examines theoretical and methodological approaches to literary analysis and also provides practical experience in exploring poetic texts. Students will analyze a wide spectrum of poems, while discussing the cultural philosophical, linguistic, political and ethical considerations that surround the reception of a text.

SPANISH 5536 Spain's Transition to Democracy: Literature and Film Credits: 3
This course reviews the cultural production between the death of Francisco Franco in 1975 and the entrance in the European Union, in film, literature and music, within its historical and political context.

SPANISH 5550 Modern Classics of Latin American Literature Credits: 3
The goal of the course is to familiarize the student with the principal Latin American writers of the modern period. The focus will be dual: the progressive sophistication of literary technique, and the refinement of social conscience. Among the authors to be studied are: Asturias, Borges, Carpentier, Cortazar, Donoso, Fuentes, Garcia Marques, Paz, Rulfo, and Vargas Llosa.

Cross Listings: SPANISH 450.

SPANISH 5553 Spanish-American Short Story Credits: 3
A study of Spanish-American short stories from Romanticism to the present.

SPANISH 5580 Special Topics Credits: 1-3
Treatment of a particular genre or area of literature or language normally not offered through regular courses. May be repeated for credit when the topic changes.
SPANISH 5580D Special Topics Credits: 1-3
SPANISH 5590 Directed Studies in Spanish & Latin American Literature Credits: 1-3
Intensive readings in a field or literary figure to be selected by the student in consultation with the instructor. Available by permission of graduate advisor or instructor, as appropriate, only when student cannot take regularly scheduled courses.
Bachelor of Arts: Languages and Literatures

Student Learning Outcomes

Students graduating from this program will:

- Attain advanced reading, writing, listening and speaking proficiency in the language studied.
- Obtain a broad base of knowledge and perspectives on the Classical world, or on French-, German- or Spanish-speaking civilizations, and of their respective cultures—literature, the arts, socio-historical, political and economic structures, etc.—within a variety of interpretive frameworks.
- Understand and articulate cultural practices and process as dynamic elements in the construction of identity, and to appreciate and encourage cultural diversity in human endeavor.
- Understand aspects of language and culture in the world as part of all human communication, and within interdisciplinary contexts.
- Develop skills in critical thinking and analysis, including, but not limited to, textual analysis.

General Information

Undergraduate Advisors

French: Gayle Levy
(816) 235-2820, levyg@umkc.edu (myersll@umkc.edu)

German: K. Scott Baker
(816) 235-2823, bakerks@umkc.edu

Larson Powell
(816) 235-1316, powelllar@umkc.edu

Spanish: Alberto Villamandos
(816) 235-2324, villamandosa@umkc.edu

Classics: Jeff Rydberg-Cox
(816) 235-2350, rydbergcoj@umkc.edu

Initial Advising and Placement

A language placement exam is strongly recommended for all students with previous foreign language experience in French, German or Spanish. The placement exam or the recommendation of a foreign language advisor will best determine a student’s level, contributing to his or her success. Contact the department office for more information. Placement test website: http://cas.umkc.edu/ForeignLanguages/PlacementExam.asp

Consultation with an advisor is recommended for students who intend to major or minor in foreign languages.

Transfer Credit

Transfer students normally may expect to continue their foreign language study at the next comparable level. On consultation with their advisors or the course instructors, and after taking the placement exam, students may be advised to do either remedial or more advanced coursework. No more than nine hours of transfer credit for 200- to 400-level courses are normally allowed toward degree requirements. Usually a maximum of six transfer credits can be applied to the minor.

Credit for study at a foreign institution will be granted, provided the courses proposed for study abroad have been approved in advance by a departmental advisor and endorsed by the department chair. When advance endorsement for credit is not obtained from the department, the credit is subject to approval by the department chair.

In cases where students have been engaged in an extended period (e.g., a year) of formal study at an approved academic institution abroad, transfer credit of more than nine hours may be granted, if approved by the department chair.

Credit by Examination

Beginning-level courses (110, 120) are not applicable toward requirements for the major. College credit for them may be earned by examination.

CLEP credit is available for French, German or Spanish (110 and 120). Contact Testing Services to arrange for the exam. A passing score is necessary to receive credit. (No more than 30 of a student's total hours may be earned by examination, and students with senior standing cannot earn credit via CLEP.)

Departmental testing or "Credit by Examination," is also available for 211-level credit. Students should first speak to the appropriate language advisor. The form is available online here (http://www.umkc.edu/registrar/forms/credit_by_exam.pdf). A minimum grade of C is necessary to receive credit.
Bachelor of Arts: Languages and Literatures

Attendance and Course Level

Class attendance

The nature of language acquisition is such that regular attendance, throughout the semester, is expected of all students enrolled for credit.

Course Levels

Course levels are generally indicated by the first digit of the course number. For example, 100-level courses are first-year courses, 200-level classes represent second-year courses, etc. Accordingly, students entering a 200-level French course must have completed FRENCH 110 and FRENCH 120, their equivalent, or show proof of second-year skill-level (such as Placement Test score). Successful completion of a second-year course (normally 211 and 221, their equivalent, or proof of appropriate skill-level) is required of all students who want to enroll in 300- or 400-level courses. Exceptions must have the approval of the student’s foreign language advisor.

The Department of Foreign Languages and Literatures offers a program of study leading to the bachelor of arts in Languages and Literatures with emphases in French, Spanish or Classics.

Learning outcomes are aligned with national and state standards on language and cultural understanding, and on national standards for language skill as reflected in the American Council on the Teaching of Foreign Language proficiency guidelines.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>Anchor I</td>
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<tr>
<td>Anchor II</td>
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<td>Anchor III</td>
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<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
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<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
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</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
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<tr>
<td>Focus B</td>
<td>(Satisfied in program requirements below)</td>
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<tr>
<td>Focus C</td>
<td>(May be satisfied by the Constitution course requirement below)</td>
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<td>Focus Elective</td>
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</table>

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits: 24

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
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<th>Code</th>
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<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
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<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
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<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
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<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
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<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
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<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
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</table>

Total Credits: 3

Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:
• Take an equivalent course from the list above at a regionally accredited institution.
• Earn credit for one of the above courses through AP, IB, or CLEP.
• Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
• Have a previous bachelor's degree (or higher) from a regionally accredited institution.
• Have an Associate of Arts degree from a regionally accredited institution.
• Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

**College of Arts & Sciences Degree Requirements**

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
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<td>ALEKS Math Placement</td>
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<tr>
<td>Arts and Humanities Division of CAS ¹</td>
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<tr>
<td>Science and Math Division of CAS</td>
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<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
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<td>Writing Intensive Course (300-level or above)</td>
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<td>Foreign Language (3rd Semester Level)</td>
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<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course) ²</td>
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<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
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<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
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<td>Laboratory Science Experience</td>
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<td>Total Credits</td>
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</table>

¹ ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

² This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

**Major Requirements**

Total: 36 credits at or above the 200-level

The Language and Literatures major consists of two parts: an Emphasis and a Breadth Requirement.

Language and Literatures majors must complete 30 credit hours at or above the 200-level in one of the following emphases:

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

**Emphasis: French Language and Literature**

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<thead>
<tr>
<th>Code</th>
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<td>Two French 200-level courses or higher</td>
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<td>FRENCH 315</td>
<td>Intermediate Composition and Conversation</td>
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<td>FRENCH 325</td>
<td>Intermediate Conversation and Composition</td>
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<td>FRENCH 415</td>
<td>Advanced Conversation and Composition I</td>
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<td>Two 300-level French courses or higher</td>
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<td>Two 400-level French courses</td>
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<tr>
<td>Breadth Requirement</td>
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<tr>
<td>FRENCH 499</td>
<td>Senior Seminar (Capstone)</td>
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<td>Total Credits</td>
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**Emphasis: Spanish Language and Literature**

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<td>Two Spanish 200-level courses or higher</td>
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<tr>
<td>SPANISH 315</td>
<td>Intermediate Conversation And Composition I</td>
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<td>SPANISH 325</td>
<td>Intermediate Conversation And Composition II</td>
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<td>SPANISH 415</td>
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<td>Two 300-level Spanish courses or higher</td>
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</table>
Two 400-level Spanish courses 6

Breadth Requirement See below 6

SPANISH 499 Senior Seminar (Capstone) 3

Total Credits 36

**Emphasis: Classical Languages and Cultures**

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<th>Code</th>
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<td>Greek, Latin, OR Classics 200-level courses or higher</td>
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<tr>
<td>Greek, Latin, or Classics 300-level courses</td>
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<tr>
<td>Greek, Latin, or Classics 400-level courses</td>
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<td>Breadth Requirement See below</td>
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<tr>
<td>CLASSICS 499 Senior Tutorial (Capstone)</td>
<td>3</td>
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</tr>
</tbody>
</table>

Total Credits 36

**Breadth Requirement**
The Breadth Requirement may be met by completing one of the following:

1. A second Language and Literatures emphasis;
2. A minor in another foreign language offered by the Department;
3. Six (6) credit hours of coursework at the 200-level or higher among foreign language courses outside the Emphasis (including courses taught in English). These classes must focus on language, literary or cultural studies. Appropriate courses offered by other departments (e.g. History of Latin America) can fulfill the breadth requirement with the prior approval of the undergraduate advisor.

**Other Requirements and Regulations**

1. A capstone course is required for the completion of the B.A. in Languages and Literatures.
2. Higher-level courses may be substituted for lower-level coursework, e.g. a 300-level course can be taken instead of a 200-level course. A minimum of two 400-level courses is required for each Emphasis in addition to the Capstone, 499.
3. A 2.0 grade-point-average in Languages and Literatures courses is required for graduation.
4. Study abroad is strongly recommended for all departmental majors and minors, but not required for degree completion.
5. FRENCH 435 does not count toward the major in Languages and Literatures.
6. Native speakers studying their own languages will complete a minimum of 21 credit hours in courses numbered 300 and above, but normally not including 315 or 325, and they will complete the Breadth Requirement. A native speaker is defined as a person who speaks the target language fluently and who has completed formal schooling through the secondary school level, or equivalent, in the target language.

**General Electives**

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>23</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0

Total Credit Hours: 120

**Tools for Planning and Fulfilling Academic Requirements**

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/plannymydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
German Studies Minor

Student Learning Outcomes

Students graduating from this program will:

- To attain advanced reading, writing, listening and speaking proficiency in the language studied.
- To obtain a broad base of knowledge and perspectives on the Classical world, or on French-, German- or Spanish-speaking civilizations, and of their respective cultures—literature, the arts, socio-historical, political and economic structures, etc.—within a variety of interpretive frameworks.
- To understand and articulate cultural practices and process as dynamic elements in the construction of identity, and to appreciate and encourage cultural diversity in human endeavor.
- To understand aspects of language and culture in the world as part of all human communication, and within interdisciplinary contexts.
- To develop skills in critical thinking and analysis, including, but not limited to, textual analysis.

Learning outcomes are aligned with national and state standards on language and cultural understanding, and on national standards for language skill as reflected in the American Council on the Teaching of Foreign Language proficiency guidelines:

Program Requirements

The German Studies minor consists of 18 hours selected from the list of approved courses, of which a minimum of 6 credits must be in German Language and a minimum of 9 credits must be upper-division coursework. Up to 6 credits may come from classes listed in the Associated Course List, but these courses apply only if the student’s project focuses on a German topic. A capstone project is also required. A maximum of six hours may apply to both a German minor and a German Studies minor.

Approved Course Offerings

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foreign Languages and Literatures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GERMAN 110</td>
<td>Elementary German I</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 120</td>
<td>Elementary German II</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 211</td>
<td>Second-Year German I</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 221</td>
<td>Second-Year German II</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 315</td>
<td>Intermediate Conversation and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 325</td>
<td>Intermediate Conversation and Composition II</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 415</td>
<td>Advanced Conversation and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 425</td>
<td>Advanced Conversation and Composition II</td>
<td>3</td>
</tr>
<tr>
<td><strong>German Literature</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GERMAN 301</td>
<td>Introduction to Literary Studies</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 307</td>
<td>From the Middle Ages to the Baroque</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 308</td>
<td>From the Enlightenment Through the 19th Century</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 310</td>
<td>Classical Period Of German Literature</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 340</td>
<td>Society and Literature in 20th-Century Germany</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 401</td>
<td>Bertolt Brecht</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 411</td>
<td>Romanticism</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 412</td>
<td>The German Novelle</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 421</td>
<td>19Th-Century Drama</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 422</td>
<td>Contemporary Drama</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 426</td>
<td>20th-Century German Literature</td>
<td>3</td>
</tr>
<tr>
<td><strong>German Culture and Film:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GERMAN 305</td>
<td>Current Events in Germany</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 306</td>
<td>Aspects Of Contemporary German Culture (Conducted In German)</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 341</td>
<td>German Film (in English)</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 342</td>
<td>Contemporary German Film 1980 (in English)</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 453</td>
<td>Women’s Voices in Germany and Austria</td>
<td>3</td>
</tr>
<tr>
<td><strong>Interdisciplinary Cluster Courses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GERMAN 300CZ/HISTORY 400CZ</td>
<td>CC: The Other Europe</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
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</tr>
<tr>
<td>GERMAN 313</td>
<td>CC: Intro to German Studies</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 314CC</td>
<td>Weimar Culture: Gender and Modernity in Central Europe</td>
<td>3</td>
</tr>
</tbody>
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**History**

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>HISTORY 300G/5500G</td>
<td>Special Studies</td>
<td>1-3</td>
</tr>
<tr>
<td>HISTORY 436R/5536</td>
<td>Modern German History</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 437AWI</td>
<td>Imperial Germanies, 1848-1918</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 437BWI</td>
<td>First German Republics, 1917-1935</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 437CWI</td>
<td>The Third Reich, 1930-1950</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 437DWI</td>
<td>Cold War Germanies, 1941-1991</td>
<td>3</td>
</tr>
</tbody>
</table>

**Philosophy**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHILOS 436</td>
<td>Kant</td>
<td>3</td>
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</table>

**Associated Course Offerings**

**Art History**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART-HIST 202</td>
<td>From Michelangelo to Modernism</td>
<td>3</td>
</tr>
<tr>
<td>ART-HIST 303</td>
<td>World Currents of Contemporary Art</td>
<td>3</td>
</tr>
<tr>
<td>ART-HIST 415WI</td>
<td>Romanticism</td>
<td>3</td>
</tr>
<tr>
<td>ART-HIST 416WI</td>
<td>Later 19th Century Painting And Sculpture</td>
<td>3</td>
</tr>
<tr>
<td>ART-HIST 445</td>
<td>Northern European Art: 15th And 16th Centuries</td>
<td>3</td>
</tr>
</tbody>
</table>

**Interdisciplinary Cluster Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HISTORY 420CC</td>
<td>World War I in Film: The World made Modern</td>
<td>3</td>
</tr>
</tbody>
</table>

**History:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HISTORY 413/5513</td>
<td>Renaissance</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 414/5514</td>
<td>Reformation</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 417R/5517</td>
<td>Nations &amp; Empires: 19th Century Europe</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 415B</td>
<td>17th and 18th Century European History</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 418R/5518</td>
<td>The Age of Extremes 20th Century History</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 419R/5519</td>
<td>Contemporary Europe: 1930-2000</td>
<td>3</td>
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</table>

**Musicology (Conservatory):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HISTORY 430RA</td>
<td>'We Are The Dead': The Great War Experience Through its Artifacts</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5554</td>
<td>Music of the Medieval Era</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5557</td>
<td>Music of the Classical Era</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5558</td>
<td>Music of the Romantic Era</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5559A</td>
<td>Music Since 1900: 1900-1945</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5560B</td>
<td>Seminar: Nineteenth-Century Nationalism In Music</td>
<td>3</td>
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</tbody>
</table>

**Philosophy:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHILOS 332</td>
<td>Existentialism</td>
<td>3</td>
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</table>

**Political Science:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>POL-SCI 220</td>
<td>Introduction To Comparative Politics</td>
<td>3</td>
</tr>
<tr>
<td>POL-SCI 451</td>
<td>International Politics In Europe</td>
<td>3</td>
</tr>
</tbody>
</table>
Minor: French, German, Spanish

Student Learning Outcomes

Learning outcomes are aligned with national and state standards on language and cultural understanding, and on national standards for language skill as reflected in the American Council on the Teaching of Foreign Language proficiency guidelines:

- To attain advanced reading, writing, listening and speaking proficiency in the language studied.
- To obtain a broad base of knowledge and perspectives on the Classical world, or on French-, German- or Spanish-speaking civilizations, and of their respective cultures—literature, the arts, socio-historical, political and economic structures, etc.—within a variety of interpretive frameworks.
- To understand and articulate cultural practices and process as dynamic elements in the construction of identity, and to appreciate and encourage cultural diversity in human endeavor.
- To understand aspects of language and culture in the world as part of all human communication, and within interdisciplinary contexts.
- To develop skills in critical thinking and analysis, including, but not limited to, textual analysis.

The growing need for experts in the international aspects of academic and professional fields has led to a renewed interest in the foreign language minor as a complement to a student's training in a major field. In increasing numbers, students completing baccalaureate degrees in the Henry W. Bloch School of Business and Public Administration, in the Conservatory of Music and in other departments of The College of Arts and Sciences have selected a course of study that includes a minor in a foreign language. Majors in all fields are urged to discuss this possibility with their advisors.

Requirements for Program Minor

An academic minor in a target language requires a minimum of 18 hours consisting of six hours of 200-level courses or above plus 12 hours of courses at the 300- and 400-levels. FRENCH 435 does not count toward a minor. Usually a maximum of six transfer credits can be applied to the minor.
Master of Arts: Romance Language and Literature

The master of arts degree program provides necessary training in French or Spanish language and literature for those who want to teach those languages at the secondary school or junior college level. It also serves students who plan to continue with studies at the doctoral level. Other employment opportunities can be found in government, business and industry, publishing houses, foundations, etc.

Admission Requirements

A bachelor's degree from an accredited institution with a 3.0 (B) grade-point average in the subject area and a 2.75 overall GPA is required for admission.

The Graduate Record Examination (Advanced Achievement) is recommended, and two letters of recommendation are required. Students' transcripts with accompanying data are carefully evaluated.

Applicants with inadequate preparation may be required to make up deficiencies by taking more than the standard 30 hours of coursework.

Courses taken prior to admission into a graduate program will not count for graduate credit.

Requirements for Retention

If students' graduate grade-point averages fall below 3.0 (B), they may take coursework only on the 300 and 400 levels until a 3.0 graduate grade-point average has been achieved. Coursework completed under this condition will not count toward the master's degree.

Transfer Credit

No more than 6 hours of transfer credit are normally allowed toward degree requirements.

Advising

Students interested in pursuing a master's degree in Romance languages should meet with the appropriate principal graduate advisor before beginning studies:

**French:** Nacer Khelouz  
(816) 235-5996, khelouznacer@umkc.edu (levyg@umkc.edu)

**Spanish:** Louis Imperiale  
(816) 235-2822, imperialel@umkc.edu

In consultation with the advisor, a course of study will be planned listing the courses that will satisfy requirements for the degree. Prior to registration at least once each year, candidates must meet with their advisors for approval of their course programs. They also must seek their advisor's endorsement whenever a change in the agreed course of study is necessary.

Student Learning Outcomes

Students graduating from this program will:

- Students demonstrate Written Proficiency in the chosen language. More specifically, the writing proficiency objective is for students to attain at least an Advanced level of writing as outlined by the American Council on the Teaching of Foreign Languages (2012). These writers meet "work and/or academic writing needs" on a variety of topics generally with "precision and detail."

- Students demonstrate Oral Proficiency in their chosen language by attaining an Advanced level of speaking as outlined by the American Council on the Teaching of Foreign Languages (2012). These speakers are able to "engage in conversation in a clearly participatory manner in order to communicate information on autobiographical topics, as well as topics of community, national, or international interest. The topics are handled concretely by means of narration and description in the major time frames of past, present and future. These speakers can also deal with a social situation with an unexpected complication. The language of Advanced-level speakers is abundant, the oral paragraph being the measure of Advanced-level length and discourse." 

- Students demonstrate advanced competency in cultural and textual analysis, including appropriately sophisticated research and documentation skills. Students can effectively describe, analyze and critically evaluate multiple topics in support of an original thesis. Students can search, find and accurately identify appropriate sources for a chosen topic. They can effectively analyze, evaluate and summarize other people's thinking about a particular topic. They consistently and accurately cite relevant research. The demonstration of this competency is most often in the target language.

- Students demonstrate thematic knowledge of the culture(s) of their chosen language, including but not necessarily limited to the literature in that language. Students demonstrate a significant grasp of the history of Spanish or French-speaking countries and/or peoples and they can discuss in some depth their culture(s) and cultural production, including literary texts.
M.A. Degree Requirements

1. Students must earn 30 graduate credit hours to complete the M.A. in Romance Languages. Of these credits, at least 21 hours must be at the graduate level (courses numbered 5500 and above). When appropriate and/or necessary, students may count up to 9 hours of 400-level courses taken while enrolled as a graduate student towards the M.A. A minimum GPA of 3.0 is required in all graduate work. Students must take courses in a variety of areas, genres and periods in order to achieve both breadth and depth of knowledge. See below for specific course and distribution requirements for each emphasis area (Spanish & French). Students must obtain approval of their study programs by the graduate advisor for their area at least once a year.

2. Students must demonstrate ability to read, speak and write, idiomatically and with accuracy, the language in which the M.A. degree is being pursued.

3. Final Examination: Students must take a final examination consisting of both written and oral sections. See details below for each emphasis area.

4. Second Language Proficiency: In addition to the mastery of the target language, students must demonstrate a reading knowledge of a second language in one of the following ways:
   • Taking a reading examination in French, Spanish, Italian, German or Latin administered or approved by the department or given by the Educational Testing Service.
   • Achieving a grade of 3.0 (B) or better in a 211 (3 credit hour), or equivalent, language course.
   • Achieving a grade of 2.0 (C) or better in each of two 300-level courses or in one 400-level literature or civilization course taught in the second language.

M.A. in Romance Languages: French Emphasis

Student Learning Outcomes

Students graduating with an M.A. in romance languages will:

• Obtain specialized knowledge of either Hispanic or French and Francophone cultures, especially of their literatures as foundational paradigms for inquiry into language and cultural phenomena.
• Develop skill in reflective inquiry.
• Analyze cultural products, process and perspectives with a variety of interpretive strategies.
• Attain superior reading, writing, listening and speaking proficiency in the primary language studied, and intermediate reading proficiency in the secondary language studied.

1. Distribution of courses
   a. Students will choose courses covering five out of the seven following periods or fields:
      i Medieval/Early Modern
      ii Renaissance
      iii 17th and 18th Centuries
      iv 19th Century
      v 20th and 21st Centuries
      vi Linguistics or Pedagogy
      vii Francophonie
   b. In addition, as part of their 30 credit hours of study, students will take one course in advanced French stylistics.

2. Exams. The final exam will be comprised of a written and an oral portion.
   a. Written exam
      i In consultation with the French faculty, students will draw up a list of eight subjects covering most periods/fields and one explication de texte of a poem.
      ii The written exam will consist of 2-3 questions, written by the faculty and based on the subjects from the student’s list. The student will have two hours in which to write the essays. No notes are allowed, but the student may consult the texts during the exam.
   b. Oral exam
      On a subsequent day, the student will take the one-hour oral exam, which will consist of the explication de texte and follow-up questions to the written exam. The student may bring brief notes, on index cards, to help in the explication de texte.

M.A. in Romance Languages: Spanish Emphasis

Student Learning Outcomes

Students graduating with an M.A. in romance languages will:

• Obtain specialized knowledge of either Hispanic or French and Francophone cultures, especially of their literatures as foundational paradigms for inquiry into language and cultural phenomena.
• Develop skill in reflective inquiry.
• Analyze cultural products, process and perspectives with a variety of interpretive strategies.
• Attain superior reading, writing, listening and speaking proficiency in the primary language studied, and intermediate reading proficiency in the secondary language studied.

1. Distribution of courses
   a. Students will choose courses covering six out of the eight following periods or fields:
      i. Medieval/Early Modern
      ii. Golden Age
      iii. 18th and 19th Centuries
      iv. 20th and 21st Centuries
      v. Spanish or Romance Linguistics
      vi. Foreign Language Pedagogy
      vii. Pre-Columbian / Indigenous/ Colonial Literature
      viii. U.S.-Latino Studies
   b. In addition, a student’s coursework must include at least one course in each general category of Peninsular or Latin American.

2. Exams. The final exam will be comprised of a written and an oral portion.
   a. Written Exam
      Questions will be based on a reading list prepared in advance by the students and their graduate advisor, based on the periods and fields covered in all their graduate courses; it will consist of 15 (out of 30 possible) identifications, two short and two long essays. The student will have four hours in which to write the essays. No notes, texts or dictionaries will be allowed.
   b. Oral Exam
      On a subsequent day, the student will take the one-hour oral exam, which will consist of a textual analysis. Prior to the exam, the student will be given a text and will have 30 minutes to prepare the analysis.
Department of Geosciences

Department of Geosciences
Robert H. Flarsheim Science and Technology Hall
5110 Rockhill Road, Room 420
Kansas City, MO 64110-2499
(816) 235-1334, (816)-235-6081
Fax: (816) 235-5535
geosciences@umkc.edu
http://cas.umkc.edu/geo

Department Chair:
Interim Chair: Michael B. Kruger

Professors:
Wei Ji (graduate Geography adviser and GIS Certificate Program Director), Tina M. Niemi (principal undergraduate Geology adviser)

Associate Professors:
Jimmy O. Adegoke (undergraduate Geography advisor; Director of CAER), Caroline P. Davies (undergraduate Environmental Science advisor; Director, Environmental Studies program), Jejung Lee, James B. Murowchick (principal graduate advisor; Interdisciplinary Ph.D. coordinator)

Professors Emeriti:
Raymond M. Coveney, Jr., Steven L. Driever, Richard J. Gentile, Syed E. Hasan, Daniel P. Hopkins

Department Description

The Department of Geosciences offers programs of study leading to bachelor of science degrees in Environmental Science, Geography, and Geology and bachelor of arts degrees in Environmental Studies, Geography and Geology. The department offers a master of science degree in Environmental and Urban Geosciences and participates in the Interdisciplinary Ph.D. program. The department also offers an undergraduate and graduate certificate in Geographic Information Systems (GIS). Students who designate Geosciences (Environmental Studies, Geology or Geography focus) on their application for admission to the doctoral program must meet admission and other requirements available from the department. See the School of Graduate Studies section in the Graduate Catalog for more information about doctoral programs. The department takes a leading role in the undergraduate interdisciplinary Environmental Studies program. Courses offered by the department can be used to fulfill the requirements of the Missouri Department of Education for earth science, science-math, and social science teaching specialties.

Students majoring in Environmental Studies, Environmental Science, Geography, or Geology obtain a broad liberal arts education during their undergraduate career and at the same time receive sound fundamental training in the geosciences. Departmental faculty members are committed to educating non-majors about the earth and environmental sciences as well as those students who plan to pursue careers in the geosciences.

All undergraduate majors in the Department of Geosciences (including Environmental Studies) must maintain a minimum grade point average above 2.0 in all courses taken to fulfill departmental degree requirements. This minimum GPA also applies to all credit hours transferred from other institutions.

Students in the geosciences address earth-related questions and problems facing society today. Environmental studies focuses on environmental processes and policy. Geography deals with place and the relationships between people and the environment. Geology explores the materials and processes of the earth and its evolution and history.

We offer unique university experiences such as field courses and excursions. The Geosciences’ faculty and students have conducted research in many countries such as Jordan, Mexico, Chad, China, Korea, Cameroon, the Bahamas, Denmark, Spain, India and Turkey.

Special Resources and Services

Geosciences Museum
The Geosciences Museum, founded by Richard L. Sutton, M.D., is located in Room 271, R.H. Flarsheim Hall. It contains relief models and interactive displays, along with a full range of 2,500 spectacular mineral and fossil specimens from all over the world. Hours of operation are 8:30 a.m. to 4:30 p.m. Monday through Friday. Admission is free.

Center for Applied Environmental Research (CAER)
The Center for Applied Environmental Research http://cas.umkc.edu/caer is administered by the Geosciences Department and directed by Professor Jimmy O. Adegoke. The center is a resource for governmental agencies, private firms, and the general public in matters of the environment. Its programs address such matters as environmental geophysics, geochemistry, underground space, foundation stability, waste management, geologic hazards, environmental justice, natural resource assessment, and land-use planning.
Undergraduate Admission Requirements

Prospective students desiring to major in the Geosciences programs should enroll in as much work as possible in mathematics, English composition and sciences during their high school years.

Students transferring from other colleges or universities should have taken required non-departmental 100- and 200-level courses listed under degree programs in this catalog prior to arriving at UMKC. For example, geology students should take mineralogy during their first fall semester after transferring and should have already completed the chemistry prerequisite by that time. In addition, it would be desirable for B.S. majors to have completed a semester of calculus. To assure that students transferring from other institutions of higher education can continue in an uninterrupted plan of study in the fields of geology, geography or environmental studies, it is advisable that they acquaint themselves with the departmental degree requirements listed in this catalog as well as the two-year timetable of course offerings available from the department advisors, prior to registration.

Science and Math Division of CAS Degree Requirements

The following geosciences courses count toward the Science and Math requirements of the College of Arts and Sciences:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENV-SCI 110L</td>
<td>Understanding the Earth Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>ENV-SCI 110R</td>
<td>Understanding the Earth: Introduction to Environmental Science and Laboratory</td>
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<td>GEOG 203</td>
<td>Introduction to Geographic Information Systems</td>
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<td>GEOG 314</td>
<td>Principles of Geomorphology</td>
<td>4</td>
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<td>GEOG 317</td>
<td>Cartography</td>
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<td>GEOG 335</td>
<td>Introduction to Waste Management</td>
<td>3</td>
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<tr>
<td>GEOG 360</td>
<td>Principles of Biogeography</td>
<td>4</td>
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<tr>
<td>GEOG 401</td>
<td>Advanced Geographic Information Science</td>
<td>4</td>
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<td>GEOG 402</td>
<td>Environmental Remote Sensing and Digital Image Analysis</td>
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<td>GEOG 404</td>
<td>Biogeography and Landscape Ecology</td>
<td>3</td>
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<td>GEOG 406</td>
<td>Global Environmental Change</td>
<td>3</td>
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<td>GEOG 435</td>
<td>Geoarchaeology</td>
<td>3</td>
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<tr>
<td>GEOG 442</td>
<td>Quaternary Environments</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 444</td>
<td>Spatial Data Analysis</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 448</td>
<td>Satellite Climatology</td>
<td>4</td>
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All Geology courses

Social and Behavioral Science Division of CAS Degree Requirements

All Geography courses except those listed above count toward the Social and Behavioral Sciences requirements of the College of Arts and Sciences.

Careers for Geography, Geology and Environmental Studies/Science Graduates

Geography

Students of geography at UMKC are offered a well-rounded education leading to promising career prospects; the market for geographers is global. Geography is centrally concerned with the whole range of interrelations between human beings and the natural and built environments. Geography graduates find work in commerce; government and public administration; city and regional planning; natural resource management and environmental conservation; historic preservation; landscape design; pollution control; weather-forecasting; climatological and agricultural analysis; statistical analysis; government and commercial map-making; transportation; the travel and tourism industry; market analysis and development; diplomacy; and national and international economic development programs. Experience with geographic information science (GIS) and remote sensing technologies is a great advantage in all these fields. Well-educated geographers are often involved in the crafting of policy and legislation, in the practice of law, in consulting, in publishing and in education.

Geology

Geology graduates have numerous employment opportunities, especially in areas relating to the environment, to engineering and to applied geology. Training in urban and environmental geology will prepare graduates to develop and evaluate environmental impacts, deal with waste management issues; model groundwater flow; handle laboratory and field instrumentation; and assess natural hazards. Geologic studies of soils, energy, mineral and water resources, and the environment are essential for private industry, as well as for governmental agencies. Graduates may also join state and federal geological surveys. The petroleum industry was for many years the principal employer of geologists. However, currently the best employment opportunities are in the area of the environment.

Environmental Studies

Environmental issues such as climate variation, atmospheric pollutants and non-point-source water pollution are complex issues. The general public is ill-equipped to evaluate these issues and must rely on experts. The need for environmental education and professionals in the field of the environment
has never been greater. Given these needs, employment opportunities are unlimited and are likely to remain so for decades. Specific careers available to those who hold an environmental studies degree lie with companies and agencies that deal with engineering, environmental geology, environmental law, environmental health and safety, emergency response, environmental training, environmental chemistry, politics and social issues.

Departmental Activities

Advising System

Students who wish to major in Geology, Geography or Environmental Studies should seek advice from the department at the earliest possible time. Transfer students, including those from local community colleges, should see faculty advisors in the department prior to admission to UMKC. All full-time faculty members serve as department advisors, but lead roles are designated to particular faculty for each discipline. Individuals may inquire about advising appointments at any time during the semester by phone at (816) 235-1334 or by email at geosciences@umkc.edu.

Practicums and Internships

The nature of the fields of atmospheric science, environmental studies, geology, and geography necessitates practical in-class and laboratory exercises; field trips and fieldwork; working seminars and independent projects of a practical nature. More explanation of specific courses can be found in the individual course descriptions. Internships are available with local organizations.

Financial Aid and Transportation Costs

A variety of scholarships and student financial aid alternatives are available to students accepted for regular enrollment. (See the Financial Aid website http://www.umkc.edu/finaid for more information.) Scholarships available solely to Geosciences students include the ASCE-AEG Scholarship Fund, Association of Earth Sciences Clubs Fund, Richard J. Gentile Scholarship, The Geosciences Scholarship, the Truman Stauffer Memorial Scholarship, and the Denis Ward Scholarship. Please note that certain field courses and field trips necessitate that some travel costs are at the expense of the individual student.

Teacher Certification in Earth Science or Social Science

Certification as a middle school (grades 5-9) or secondary (grades 9-12) Earth Science teacher in either Kansas or Missouri requires that a student complete specific requirements in Biology, Chemistry, Environmental Studies, Geology, Physics and in the School of Education. Certification as a middle school (grades 5-9) or secondary (grades 9-12) Social Science teacher in either Kansas or Missouri requires that a student complete specific requirements in History, Political Science, Economics, Geography, Behavioral Sciences and in the School of Education. A separate application for teacher education is required. For further information about the program, consult the School of Education (p. 1018) section of this catalog or contact the Education Student Services Office at (816) 235-2234.

Faculty

Jimmy O. Adegoke Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=adegoke); Professor of Geosciences; B.S. (Ahmadu Bello University); M.S. (University of Ibadan); Ph.D. (Pennsylvania State University).

Raymond M. Coveney, Jr. Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=coveney); Professor Emeritus of Geosciences; B.S. (Tufts University); M.S., Ph.D. (University of Michigan).

Caroline P. Davies Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=davies); Associate Professor of Geosciences; B.A. (College of William-Smith); M.S. (University of Maine); Ph.D. (Arizona State University).

Steven L. Driever Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=driever); Professor Emeritus of Geosciences; B.A. (University of Virginia); M.S. (Northwestern University); Ph.D. (University of Georgia).

Richard J. Gentile Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=gentile); Professor Emeritus of Geosciences; B.A., M.A. (University of Missouri-Columbia); Ph.D. (University of Missouri-Rolla).

Syed E. Hasan Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=hasan); Professor Emeritus of Geosciences; B.S. (Patna University); M.S. (Indian Institute of Technology, formerly Roorkee University); Ph.D. (Purdue University).

Daniel P. Hopkins; Professor Emeritus of Geosciences; B.A. (Tulane University); Ph.D. (Louisiana State University)

Paul L. Hilpman; Professor Emeritus of Geosciences; A.B. (Brown University); M.A., Ph.D. (University of Kansas).

Wei Ji Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=ji); Professor of Geosciences; B.S., M.S. (Peking University); Ph.D. (University of Connecticut).

Jejung Lee Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=lee); Associate Professor of Geosciences; B.S., M.S. (Seoul National University); Ph.D. (Northwestern University).

James B. Murowchick Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=murowchick); Associate Professor of Geosciences; B.S. (University of Illinois); M.S., Ph.D. (Pennsylvania State University).
Tina M. Niemi Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=niemi); Professor of Geosciences; B.A. (College of Wooster); M.S., Ph.D. (Stanford University).

1. Associate or Adjunct Graduate Faculty
2. Members of UMKC Graduate Faculty
3. Members of UMKC Doctoral Faculty

Undergraduate

Undergraduate Degrees:

• Environmental Studies Program (p. 350)
  • Bachelor of Arts: Environmental Studies (p. 351)
  • Bachelor of Science: Environmental Science (p. 356)
  • Environmental Studies Minor (p. 361)
  • Environmental Sustainability Minor (p. 363)
• Geography and Geology Programs (p. 365)
  • Bachelor of Science/Bachelor of Arts: Geography (p. 366)
  • Bachelor of Science/Bachelor of Arts: Geology (p. 372)
  • Geography and Geology Minor (p. 378)
  • Undergraduate Certificate Program in GIS (p. 379)

Graduate

Graduate Degrees:

• Graduate Certificate Program in GIS
• Master of Science: Environmental and Urban Geosciences (p. 381)

Environmental Science Courses

ENV-SCI 110L Understanding the Earth Laboratory Credits: 2
Laboratory and field demonstration and exercises in environmental science. Weekly exercises or field trips.
Co-requisites: ENV-SCI 110R.

ENV-SCI 110L - MOTR PHYS 110L: Essentials Physical Sciences w/Lab

ENV-SCI 110R Understanding the Earth: Introduction to Environmental Science and Laboratory Credits: 3
This introductory course surveys the processes that shape our planet. Topics include: plate tectonics and mountain-building, rivers and oceans, atmospheric circulation, weather and climate, and the amazingly complex relationships between life on Earth and the physical environment.
ENV-SCI 110R - MOTR PHYS 110L: Essentials Physical Sciences w/Lab

ENV-SCI 210 Issues in Environmental Science Credits: 3
Explores important environmental issues such as air and water pollution, water supply, climate change, agriculture and food supply, environmental health, ecosystem disruption, environmental management, environmental ethics, and energy resources. Topics may vary depending on current events.
ENV-SCI 220 Ecosystem Science for Decision Makers Credits: 3
This course addresses the fundamentals of ecosystem science with an emphasis on human-induced change in natural systems. Course content characterizes the biological patterns found in nature emphasizing application of underlying principles. Scientific tools are provided to evaluate ecosystem concerns and make informed decisions.
ENV-SCI 303 Weather and Climate Credits: 4
Overview of weather processes and the main components of the climate system. Emphasis is on the physical basis of daily weather patterns, seasonal climate variability and longer-term climate change at local, regional, and global scales. The theme throughout the course will be the importance of weather and climate as major drivers of environmental change.
Prerequisites: ENV-SCI 110R or GEOLOGY 220.
ENV-SCI 310 Field Experience in Waste Management Credits: 2-3
This course provides an overview of waste management issues, including nature, classification and disposal of various wastes, and U.S. laws governing the management of solid, hazardous, biologic and nuclear waste. Lectures and discussions will be supplemented by visits to waste management facilities to study methods and technologies used for treatment and disposal of wastewater, solid, hazardous, and biologic wastes. This field-intensive course includes travel to neighboring states and includes an overnight out-of-town stay. Final report required.

ENV-SCI 321 Climate Change Impact Assessment and Policy Response Credits: 3
This course introduces how scientists assess observed climate change and predict future climate change. Lectures, discussions, problem sets, and term papers help students explore interactions among climate change, human activities and policy responses. It helps students achieve an appreciation for the role of accurate scientific information as foundation for shaping political agreements and policies on climate change.
Prerequisites: ENV-SCI 110R.

ENV-SCI 332CZ Environmental Sustainability Credits: 3
This course will introduce the concept of sustainability and review how sustainability might work at the individual, neighborhood, state, nation and global scales. Students will participate in some form of community engagement on sustainability as well as reflect upon how their own practices impact the environment.

ENV-SCI 416 Understanding and Living with Volcanoes Credits: 3
This course will examine the distribution, tectonic setting, and morphology of a range of volcano types on Earth and a few examples from other planets. Students will study volcanic processes including explosive and passive processes and how we investigate them. This will involve discussion of volcanic hazards and hazard assessment, risk communication, and the challenges of volcanic crises response. The course will also cover how volcanoes impact the local and global economy and Earth’s climate. Recommended preparation: GEOG 314 / GEOLOGY 314 or GEOLOGY 325 or GEOLOGY 342.
Prerequisites: GEOLOGY 220 or ENV-SCI 110R/ENV-SCI 110L, and GEOG 203 or GEOG 402.

ENV-SCI 449 Global Water and Sustainability Credits: 3
This course examines the physical characteristics of water and its role in Earth systems. The challenges facing societies in an era of rapidly-changing climate are explored.
Cross Listings: GEOG 449.

ENV-SCI 496 Environmental Internship Credits: 1-4
Students obtain practical experience working for local engineering and environmental firms, or governmental agencies. Specific duties and application requirements will vary depending on the funding organization’s needs. Junior or senior standing required for undergraduates.

ENV-SCI 5550 Ecotoxicology Credits: 3
This course addresses the fundamentals of ecotoxicology, integrating the sciences of ecology and toxicology. Students will learn the biological basis for pollutant effects on individuals and populations of plants and animals, how pollutant intensity varies as a function of bioavailability, the basics of risk assessment, and how pollutant effects are modified by ecological interactions within communities and ecosystems. The ultimate goal of ecotoxicology is to predict the effects of pollution within an ecological context.
Prerequisites: BIOLOGY 108, CHEM 211, CHEM 212R.

Environmental Studies Courses

ENV-STDY 325 Cultural Perspectives on the Environment Credits: 3
This course explores the history of conservation practices in American agriculture from the 1700s through the present. Additionally, the course examines the past and present legal implications of environmental statutes for minority farmers from a social and environmental justice perspective.
Cross Listings: GEOG 325.

ENV-STDY 334 Gender and the Environment Credits: 3
This course provides a survey of different ways women relate to nature. The objectives of the course are: to understand historical relationships between women and nature in the western world, to understand different theoretical approaches to studying women and nature, to explore the geography of women’s activism on behalf of the environment, and to understand how women’s health is linked to the environment.
Cross Listings: GEOG 334.

ENV-STDY 412 Global Tourism Credits: 3
This course is a regional survey of world tourism. Topics include the uniqueness of place, the marketing of tourist destinations, and the cultural, economic, and environmental impacts on host societies.
Prerequisites: GEOG 105 or GEOG 200 or GEOG 202.

ENV-STDY 430 Soil and Groundwater Remediation Credits: 3
Prerequisites: GEOG 335 (or GEOLOGY 335).
ENV-STDY 450 Ecotoxicology Credits: 3
This course addresses the fundamentals of ecotoxicology, integrating the sciences of ecology and toxicology. Students will learn the biological basis for pollutant effects on individuals and populations of plants and animals, how pollutant intensity varies as a function of bioavailability, the basics of risk assessment, and how pollutant effects are modified by ecological interactions within communities and ecosystems. The ultimate goal of ecotoxicology is to predict the effects of pollution within an ecological context.
Prerequisites: BIOLOGY 108, CHEM 211, CHEM 212R.

ENV-STDY 499WI Environmental Studies Practicum Credits: 3
Students conduct research, participate in discussions, and prepare written reports on selected topics concerning the environment.
Prerequisites: Senior standing, RooWriter.

Geography Courses

GEOG 105 Introduction to the Elements of Geography Credits: 3
A survey of major elements of physical and human geography, with a concise overview of the world's regions. Emphasis on global relationships and distributions, both environmental and cultural. Climates, natural vegetation, land forms, cultural origins and diffusions, economic patterns.
GEOG 105 - MOTR GEOG 101: World Regional Geography

GEOG 150 Introduction to Physical Geography Credits: 3
This course is an introduction to the study of the natural environmental systems of earth—the atmosphere, the hydrosphere, the biosphere, and the lithosphere. The primary objective of the course is to provide a broad overview of these systems at a global scale. This overview will entail descriptions of natural systems and the variations they exhibit both from place to place and through time. It will also entail explaining how natural systems operate and interact with each other, thereby providing a necessary foundation for understanding the tremendously diverse physical geography of earth. Applies to natural science requirement.
GEOG 150 - MOTR GEOG 100: Physical Geography

GEOG 200 World Geography I Credits: 3
A survey of the physical and human geography of the regions and nations of Europe and the Americas, with Australia and New Zealand. The approach is strongly historical, emphasizing interconnections, shared colonial backgrounds and broader global contexts in the modern world. The course is aimed at non-specialists.

GEOG 202 World Geography II Credits: 3
A survey of the physical and human geography of the regions and nations of Russia and the other former Soviet republics, the Middle East, Africa, South Asia, East Asia Southeast Asia and the Pacific Realm. The approach is strongly historical emphasizing interconnections shared colonial backgrounds, and broader global contexts in the modern world. The course is aimed at non-specialists.

GEOG 203 Introduction to Geographic Information Systems Credits: 4
An introductory course covering the basic principles of geographic information systems focusing on such software programs as ARC-INFO and ARC-VIEW.

GEOG 210 Human Geography Credits: 3
A study of the geographical underpinnings and distribution of the main elements of culture, including population patterns, language, religion, political territorial organization, settlement, and economic livelihood. The environmental settings, geographic origins, diffusion, and geographic interrelationships of these culture traits are emphasized.

GEOG 303 Weather and Climate Credits: 4
Overview of weather processes and the main components of the climate system. Emphasis is on the physical basis of daily weather patterns, seasonal climate variability and longer-term climate change at local, regional, and global scales. The theme throughout the course will be the importance of weather and climate as major drivers of environmental change.
Prerequisites: ENV-SCI 110R or GEOLOGY 220.

GEOG 309 Urban Geography Credits: 3
Historical development, morphology and functions of urban places, including intercity relationships and the relationship between cities and their hinterlands; emphasis on American cities.

GEOG 311 Economic Geography Credits: 3
A systematic study of the modern world economy that includes discussion of the location of production and consumption, the nature and role of multinational enterprises in trade, resource limitations to growth, and cultural responses to globalization.
GEOG 314 Principles of Geomorphology Credits: 4
Explores the processes that shape the earth’s surface. Focuses on the development and description of fluvial, glacial, eolian, and coastal landforms. Studies the influence of tectonic and climatic factors. Field trip.
Prerequisites: ENV-SCI 110R (or GEOLOGY 220).

GEOG 317 Cartography Credits: 4
Design and preparation, by hand and computer, of informative, effective, and attractive maps and other graphics for various geographical purposes, especially term papers, thesis, and public presentations. Lectures, discussion, and laboratory.

GEOG 321 Climate Change Impact Assessment and Policy Response Credits: 3
This course introduces how scientists assess observed climate change and predict future climate change. Lectures, discussions, problem sets, and term papers help students explore interactions among climate change, human activities and policy responses. It helps students achieve an appreciation for the role of accurate scientific information as foundation for shaping political agreements and policies on climate change.
Prerequisites: ENV-SCI 110R.

GEOG 325 Cultural Perspectives on the Environment Credits: 3
This course explores the history of conservation practices in American agriculture from the 1700s through the present. Additionally, the course examines the past and present legal implications of environmental statutes for minority farmers from a social and environmental justice perspective.
Cross Listings: ENV-STDY 325.

GEOG 329 World Political Geography Credits: 3
An analysis of the influence of geographic factors (both physical and human) on the economic and political relationships of the nations of the world. Emphasis will be placed on population size and political viability of states, boundaries and frontiers as limits of national space, problems related to the spatial integration of states, and the independence and interdependence of states within the larger world political system.

GEOG 332 Cultural Geography Credits: 3
A study of the distribution and interpretation of cultural patterns throughout the world. Examined are material and non-material elements of culture such as settlement, land use, technology and belief systems. The geographic origins and diffusion of culture traits are emphasized.

GEOG 333 Geographic Elements of Urban Planning Credits: 3
Analysis of the changing form and structure of urban places from a planning viewpoint. The focus will be on land-use trends on both the intraurban and interurban levels. Covered will be such topics as planning for urban transportation, new towns, land-use planning, urban renewal, and environmental planning.

GEOG 334 Gender and the Environment Credits: 3
This course provides a survey of different ways women relate to nature. The objectives of the course are: to understand historical relationships between women and nature in the western world, to understand different theoretical approaches to studying women and nature, to explore the geography of women’s activism on behalf of the environment, and to understand how women’s health is linked to the environment.
Cross Listings: ENV-STDY 334.

GEOG 335 Introduction to Waste Management Credits: 3
Prerequisites: ENV-SCI 110R, GEOG 150, GEOLOGY 220.

GEOG 336 Principles of Soil Science Credits: 3
Study of genesis, evolution, distribution and classification of soils. Analysis of soil-forming materials and processes. Lecture, discussion and laboratory.
Prerequisites: ENV-SCI 110R, GEOLOGY 220.

GEOG 340 Geography of the United States and Canada Credits: 3
A survey of the physical and human geography of the United States and Canada. The approach is strongly historical emphasizing interconnections, shared colonial backgrounds, and broader international contexts in the Americas and around the globe. This course is aimed at non-specialists.

GEOG 341 Geography of South America Credits: 3
A study of the physical and human geography of South America, with an emphasis on cultural processes and the historical record. Contemporary issues such as economic development, trade, urbanization, and geopolitical conflicts are discussed.

GEOG 342 Geography of Mexico, Central America and the Caribbean Credits: 3
A study of the physical and human geography of Middle America, with an emphasis on cultural processes and the historical record. Contemporary issues such as economic development, trade urbanization, and geopolitical conflicts are discussed.

GEOG 350 Geography of Europe Credits: 3
A survey of the physical and human geography of the regions and nations of Europe. The approach is strongly historical, emphasizing international interconnections and broad global contexts. The course is aimed at non-specialists.
GEOG 351 Regional Geography of the Middle East Credits: 3
A study of human imprint upon the land through settlement patterns, institutions of land organization, and types of economy. Strategies for the economic development of various regions in the Middle East are discussed.

GEOG 360 Principles of Biogeography Credits: 4
This course is an introduction to biogeography that explores the patterns of plant and animal distributions from both ecological and historical perspectives. We examine past geologic and climatic conditions, as well as interactions between organisms and their environment to explain modern distributions of flora and fauna. Human interactions with plants and animals have increasingly profound consequences on distributions of flora and fauna from destruction to management. We explore the increasing importance of issues and strategies in conservation. The laboratory portion of the course builds on core ecological concepts and provides experiences of field observation, data collecting and data analysis.

**Prerequisites:** ENV-SCI 110R.

GEOG 398 Field Trip Credit: 1
Three-day field trip in March or April (at student's expense) for department majors. An opportunity to observe and study physical and cultural features and collect materials. Brief descriptive report of trip required.

**Prerequisites:** 6-9 hours of upper-level geography.

GEOG 401 Advanced Geographic Information Science Credits: 4
This course is designed for the students knowledgeable in the fundamentals of geographic information systems, who wish to gain expertise in advanced topics and applications in geographic information systems, remote sensing, and related environmental informatics. Classes are organized to encourage active learning. Students are encouraged and guided to develop their research projects by integrating related techniques of geographic information science.

**Prerequisites:** GEOG 203.

GEOG 402 Environmental Remote Sensing and Digital Image Analysis Credits: 4
This course will provide students with innovative techniques for landscape-level environmental analysis, geographic and geological studies, earth science research, and environmental resources management using remotely sensed data including satellite images. Students will be taught basic remote sensing concepts and technical skills, including energy radiative transfer processes in remote sensing, sensors and resolutions, computer-based image processing and classification, and remote sensing/GIS integration.

**Prerequisites:** GEOG 203.

GEOG 403WI History and Philosophy of Geoscience Credits: 3
A survey of geoscientific thought since antiquity. The substance of geography, geology, and environmental studies will be sought primarily in scholarly treatise and formal analytical systems including cartography, but the course also addresses geoscientific principles emerging from the history of environment, government, law, economy, religion, literature, and material culture. Readings, lectures, discussions, research, writing.

**Prerequisites:** RooWriter.

**Cross Listings:** GEOG 5503WI.

GEOG 404 Biogeography and Landscape Ecology Credits: 3
Principles and applications of biogeography and landscape ecology, emphasizing distribution of major ecosystems and related plants and animal species on earth, biodiversity, landscape patterns and processes, and physical, biological, and human interactions. The course explores ecosystem and landscape analyses using advanced GIS, remote sensing, and spatial modeling methods for real problem solving in environmental and biological research, ecosystem conservation, and urban planning and studies.

**Prerequisites:** GEOG 203, GEOG 402 (or GEOG 5502).

GEOG 406 Global Environmental Change Credits: 3
This course will examine the current rates of global environmental change and potential causes in the context of Earth's natural climate variability. The course will follow a seminar format. Students will read and discuss published articles on current and emerging theories of forcing mechanisms in the Earth's systems.

GEOG 412 Global Tourism Credits: 3
This course is a regional survey of world tourism. Topics include the uniqueness of place, the marketing of tourist destinations, and the cultural, economic, and environmental impacts on host societies.

**Prerequisites:** GEOG 105 or GEOG 200 or GEOG 202.

GEOG 416 Understanding and Living with Volcanoes Credits: 3
This course will examine the distribution, tectonic setting, and morphology of a range of volcano types on Earth and a few examples from other planets. Students will study volcanic processes including explosive and passive processes and how we investigate them. This will involve discussion of volcanic hazards and hazard assessment, risk communication, and the challenges of volcanic crises response. The course will also cover how volcanoes impact the local and global economy and Earth's climate.

**Prerequisites:** GEOLOGY 220 or ENV-SCI 110R/110L, and GEOG 203 or GEOG 402.

GEOG 417 Special Topics Credits: 1-3
Individual research and study of a selected topic in geography, meteorology or earth science.
GEOG 426 Paleoecology: Microfossils and Climate Change Credits: 3
Paleoecology will focus on questions addressing past environments and past climates based on the ecology of microfossils. Micro-organisms are very sensitive to a wide variety of environmental conditions including temperature, precipitation, hydrology, water chemistry, salinity, habitat, and pollution. The fossil remains of these organisms are used as proxy indicators for reconstructing past environmental conditions, climate change, vegetation dynamics, and human impacts. Students will have the opportunity to process microfossils and make interpretations based on analysis data.

GEOG 430 Energy Resources Credits: 3
This course covers the distribution, origin, and utilization of all types of energy. Topics include exploration, production, storage, transportation and conservation of carbon-based fuels, hydrologic, nuclear energy, and alternate energy sources such as solar, wind, geothermal, and hydrogen. **Prerequisites:** ENV-SCI 110R (or GEOLOGY 220).

GEOG 435 Geochronology Credits: 3
This course examines geochronological methods used in reconstructing sites, settlement patterns, and paleoenvironments. Explores dating methods, soils, and stratigraphy as tools for studying landscape evolution and human occupation. **Prerequisites:** GEOG 314 (or GEOLOGY 314).

GEOG 437 Population Geography Credits: 3
This course analyzes human populations: how they grow, how their compositions change, and how and why people migrate from one place to another. Students will study basic demographic processes—mortality, fertility, and migration—and underline theory and techniques. Students will also examine relationships between population growth and population planning, immigration, urbanization and cities, and the environment.

GEOG 442 Quaternary Environments Credits: 3
This course reviews earth climatic history and focuses on major mechanisms for global and regional climate change. Methods of paleoclimatic reconstruction are examined, including analysis of proxy data and climate modeling. Application of these methods toward prediction of future climate change is also explored. **Prerequisites:** GEOG 314 or GEOLOGY 314.

GEOG 444 Spatial Data Analysis Credits: 4
Quantitative techniques and applications of spatial data analysis. The course will cover basic geospatial analysis techniques including hypothesis testing, kriging, variogram analysis, multivariate analysis and reliability analysis. Emphasis is on practical applications rather than theories. Intended for Geology, Geography, Environmental Studies, and relevant fields. Three hours lecture and one hour computer lab per week.

GEOG 448 Satellite Climatology Credits: 4
Use of satellite observations to study the climate system. Discussions consider the development of satellite climatology, sensors, platforms and methodologies used to estimate climate variables from radiance measurements. Aspects of climate that are emphasized include cloud climatologies, cloud systems, atmospheric moisture, radiation budget, and land-surface conditions. Three hours lecture and one hour lab per week. **Prerequisites:** GEOG 303.

GEOG 449 Global Water and Sustainability Credits: 3
This course examines the physical characteristics of water and its role in Earth systems. The challenges facing societies in as era of rapidly changing climate are explored. **Cross Listings:** ENV-SCI 449.

GEOG 450 GIS Fundamentals for Research Applications Credits: 4
This course will address the needs of upper level undergraduate and graduate students who desire to learn and apply fundamental Geographic Information Systems concepts and techniques for their research projects. This course will draw on the content of the introductory GIS course offered by the department but will also be flexible such that the individual needs or interest of students can be met through guided reading and/or tailored laboratory sessions. The Department of Geosciences GIS computer laboratory, with a variety of GIS and Remote Sensing software, will be available for this course. Only for upper-level undergraduate and graduate students.

GEOG 457 North American Prehistory Credits: 3
This class offers instruction in the archaeological survey of prehistoric North America from the Arctic to northern Mexico. The course outlines cultural developments within this region form the peopling of the Americas near the end of the last Ice Age to the arrival of Europeans more than 10,000 years later. The diversification of Native American societies across this time span is examined in relation to social and environmental challenges, including the transformation of hunter-gatherer groups into chiefdoms and complex agricultural societies. **Cross Listings:** ANTHRO 384.

GEOG 460 Transportation Geography Credits: 3
Relation between transportation and spatial organization, selected analytical models dealing with traffic demand, network configuration, and allocation of transport facilities; application to specific problem areas including commuting. Seminar with discussions of briefs and term paper.

GEOG 496 Geography Internship Credits: 1-6
Students obtain directed practical experience working with non-profits, governments, or private enterprises. Duties will vary based on contractual agreement between the student, host organization, and the professor. **Prerequisites:** Junior standing or higher.
GEOG 499WI Geography Seminar Credits: 3
Students critique geographic research and prepare a paper and an oral presentation on an approved topic. 
Prerequisites: Senior standing, RooWriter.

GEOG 5502 Environmental Remote Sensing and Digital Image Analysis Credits: 4
This course will provide students with innovative techniques for landscape-level environmental analysis, geographic and geological studies, earth science research, and environmental resources management using remotely sensed data including satellite images. Students will be taught basic remote sensing concepts and technical skills, including energy radiative transfer processes, in remote sensing, sensors and resolutions, computer-based image processing and classification, and remote sensing/GIS integration. 
Prerequisites: GEOG 203.

GEOG 5503WI History and Philosophy of Geoscience Credits: 3
A survey of geoscientific thought since antiquity. The substance of geography will be sought primarily in scholarly treatises, formal analytical systems, and cartography, but the course also addresses geographical principles emerging from the history of such matters as government, law economy, religion, and material culture. Readings, lectures, discussions, research, writing. 
Prerequisites: RooWriter.

Cross Listings: GEOG 403WI.

GEOG 5504 Biogeography and Landscape Ecology Credits: 3
Principles and applications of biogeography and landscape ecology, emphasizing distribution of major ecosystems and related plants and animal species on earth, biodiversity, landscape patterns and processes, and physical, biological, and human interactions. The course explores ecosystem and landscape analyses using advanced GIS, remote sensing, and spatial modeling methods for real problem solving in environmental and biological research, ecosystem conservation, and urban planning and studies. 
Prerequisites: GEOG 203, GEOG 402 (or GEOG 5502).

GEOG 5506 Global Environmental Change Credits: 3
This course will examine the current rates of global environmental change and potential causes in the context of Earth's natural climate variability. The course will follow a seminar format. Students will read and discuss published articles on current and emerging theories of forcing mechanisms in the Earth's systems. Additional in-depth research and written evaluation are required for graduate credit. 
GEOG 5507 Advanced Geographic Information Science Credits: 4 
Prerequisites: GEOG 203.

GEOG 5508 Archaeological Field Survey Methods Credits: 3
This class offers instruction in the basic skills required to conduct field surveys in archaeology and other geosciences disciplines. In the classroom, students learn about the development of archaeology as a scientific discipline and how to recognize some of the basic field data sought by archaeologists. Students earn about mapping and land navigation techniques. The field phase of instruction includes visits to archaeological sites in the region. 
GEOG 5509 Urban Geography Credits: 3
Historical development, morphology and functions of urban places, including intercity relationships and the relationship between cities and their hinterlands; emphasis on American cities. Students will complete a series of reports and a term paper. 
GEOG 5510 Landscape, Language, Literature, and Law Credits: 3
An examination of the geographic underpinnings and implications of languages, literatures, and jurisprudence. The course explores languages' historic rootedness in the interactions between human beings and their surroundings; the varying geographic expressiveness and discrimination of languages; the effect and significance of literary evocations of landscapes; and the cultural and environmental geographic content of the language of law. Readings, lectures, discussions, writing. 
Cross Listings: GEOG 410.

GEOG 5512 Global Tourism Credits: 3
This course is a regional survey of world tourism. Topics include the uniqueness of place, the marketing of tourist destinations, and the cultural, economic, and environmental impacts on host societies. 
Prerequisites: GEOG 105 (or GEOG 200, or GEOG 202).

GEOG 5515 History and Philosophy of Cartography Credits: 3
An examination of the techniques, assumptions, psychology, and cultural implications of mapping from the Stone Age to the age of satellites and the computerized Geographic Information System. Readings, lectures, discussions, writing. 
Prerequisites: Baccalaureate degree. 
Cross Listings: GEOG 415.
GEOG 5526 Paleoecology: Microfossils and Climate Change Credits: 3
Paleoecology will focus on questions addressing past environments and past climates based on the ecology of microfossils. Micro-organisms are very sensitive to a wide variety of environmental conditions including temperature, precipitation, hydrology, water chemistry, salinity, habitat, and pollution. The fossil remains of these organisms are used as proxy indicators for reconstructing past environmental conditions, climate change, vegetation dynamics, and human impacts. Students will have the opportunity to process microfossils and make interpretations based on analysis of data.

GEOG 5530 Location Theory Credits: 3
An analysis and evaluation of the basic theories that have been developed to account for the spatial arrangements of economic activity. Emphasis on urban areas as nodes of economic interaction. Three hours lecture and discussion per week.
Prerequisites: GEOG 311, six hours in economics or urban studies.

GEOG 5535 Geoarchaeology Credits: 3
This course examines geomorphological and archaeological methods used in reconstructing sites, settlement patterns, and paleo-environments; evaluating archeological site integrity; and assessing the impact of development, with the emphasis on geomorphological evidence. No archaeological background necessary.
Prerequisites: GEOG 150, GEOG 314.

Cross Listings: GEOG 435.

GEOG 5537 Population Geography Credits: 3
An analysis of human population: how they grow, their changing compositions, and how and why people migrate from one place to another. Basic demographic processes-mortality, fertility, and migration-and theory and techniques for their study are discussed. The relationships between population growth and population planning, immigration, urbanization and cities, and the environment.

GEOG 5542 Quaternary Environments Credits: 3
This course reviews earth climatic history and focuses on major mechanisms for global and regional climate change. Methods of paleoclimatic reconstruction are examined, including analysis of proxy data and climate modeling. Application of these methods toward prediction of future climate change is also explored.
Prerequisites: GEOG 314 (or GEOLOGY 314).

GEOG 5544 Advanced Spatial Data Analysis Credits: 4
This course will focus on advanced computation methods for the analysis and modeling of complex and often non-deterministic processes in the spatial and environmental sciences. Students will be introduced to innovative techniques for analyzing large datasets with attribute spaces of very high dimensionality, including hyper-spectral remote sensing data. Three hours lecture and one hour computer lab per week.
Prerequisites: GEOG 444, elementary statistics, or permission of instructor.

GEOG 5546 Global Water and Sustainability Credits: 3
This course examines the physical characteristics of water and its role in Earth systems. The challenges facing societies in an era of rapidly changing climate are explored.

GEOG 5548 Satellite Climatology Credits: 4
Use of satellite observations to study the climate system. Discussions consider the development of satellite climatology, sensors, platforms and methodologies used to estimate climate variables from radiance measurements. Aspects of climate that are emphasized include cloud climatologies, cloud systems, atmospheric moisture, radiation budget, and land-surface conditions. Three hours of lecture and one hour of lab per week.

GEOG 5597 Graduate Seminar in Geosciences Credits: 3
This graduate seminar examines emerging and current issues in Environmental and Urban Geosciences. Most environmental issues and their solutions are inherently multidisciplinary and are characterized by significant interactions between oceans, atmosphere, land, and society. In addition to examining these issues, this seminar engages students in the process of critically evaluating Earth and human systems studies. The course provides students with a fundamental background of today's important environmental challenges and experience doing the craft of science through critically reading, thinking, writing, and speaking.
Cross Listings: GEOLOGY 5597.

GEOG 5598 Special Topics in Geography Credits: 1-3
Advanced independent research in Cultural or Physical Geography.
Prerequisites: Baccalaureate degree.

GEOG 5598A Special Topics in Cultural Geography Credits: 1-3
Advanced independent research in Cultural Geography.
Prerequisites: Baccalaureate degree.

GEOG 5598B Special Topics in Physical Geography Credits: 1-3
Advanced independent research in Physical Geography.
Prerequisites: Baccalaureate degree.
GEOG 5598D Special Topics in Advanced GIS and Remote Sensing Credits: 1-3
Advanced independent research in geographic information science (GIS) and remote sensing.

GEOG 5598F Special Topics: Geostatistics and Modeling Credits: 1-3
Advanced independent research in geostatistics and modeling techniques.

GEOG 5598K Issues in Waste Management Credit: 1
This course focuses on the critical problems of managing the waste materials generated in our society. The course includes discussion of various types of waste—municipal solid waste, hazardous (industrial) waste, nuclear and medical wastes. Sources, handling, storage, transportation, treatment and disposal of these wastes are reviewed. Experts from government and the waste management industry give guest lectures.

GEOG 5599 Research and Thesis Geography Credits: 1-9
Students will conduct research and writing in support of a thesis topic, which will have been approved in advance by the appropriate graduate advisory committee. Credit load will also be approved in advance by the student's graduate advisor.

Prerequisites: Baccalaureate degree.

GEOG 5690 Special Research Topics Credits: 1-3
Student will produce a major research paper suitable for publication under the direction of their instructor.

GEOG 5699R Research And Dissertation Credits: 1-10
Research for dissertation in partial fulfillment of the Geosciences requirements for the Ph.D. degree.

Geology Courses

GEOLOGY 220 General Geology Credits: 3
Geology is the study of Earth, the materials that make up the Earth, and the forces and processes that build and shape the continents, oceans, and life on Earth. The goal of this course is for students to gain an understanding of the fundamental concepts and scientific principles that underlie the physical, chemical, and biological processes that shape our Earth and to learn to think critically about scientific information and how geologic processes affect us every day.

GEOLOGY 220 - MOTR GEOL 100: Geology

GEOLOGY 220L General Geology Laboratory Credits: 2
Laboratory and field investigations of principles of the geology designed to complement the topics covered in GEOLOGY 220 through the use of inquiry-based investigations in the laboratory and field.

Co-requisites: GEOLOGY 220.

GEOLOGY 250L Field Methods in Earth and Environmental Science Credits: 3
A field-based course covering basic methods used by earth scientists for environmental, geographic, and geologic investigations. Students will collect field data at off-campus sites, conduct periodic monitoring, and analyze samples using departmental and personal instrumentation. Students will work on collaborative projects and will present their results. Class will meet weekly for four hours in the field.

Prerequisites: ENV-SCI 110R (or GEOLOGY 220), ENV-SCI 110L (or GEOLOGY 220L).

GEOLOGY 250L - MOTR PHYS 110L: Essentials Physical Sciences w/Lab

GEOLOGY 251L Field Methods in Earth and Environmental Science: Off-Campus Credits: 3
This course will provide students with an introductory, inquiry-based learning experience that focuses on the application of field methods for understanding surface and subsurface earth processes and environmental issues. Students will collect field data at off-campus sites, conduct periodic monitoring, and analyze samples using departmental instrumentation. Students will work on collaborative projects and will present their results. Class will meet at an off campus location during break (added cost) plus have four on campus meetings. Prerequisites: GEOLOGY 220 (or ENV-SCI 110R), GEOLOGY 220L (or ENV-SCI 110L).

GEOLOGY 303 Weather and Climate Credits: 4
Overview of weather processes and the main components of the climate system. Emphasis is on the physical basis of daily weather patterns, seasonal climate variability and longer-term climate change at local, regional, and global scales. The theme throughout the course will be the importance of weather and climate as major drivers of environmental change.

Prerequisites: ENV-SCI 110R or GEOLOGY 220.

GEOLOGY 312 Mineralogy Credits: 4
Introduction to crystallography, mineral chemistry and the systematic classification and identification of minerals. Three hour lecture and discussion with two hours laboratory a week.

Prerequisites: CHEM 212R, GEOLOGY 220.
GEOLOGY 313 Evolution and the Geologic Record Credits: 4
An introduction to the history of life by studying the geologic record. Students will examine major features of the fossil record including: invertebrates, vertebrates, and plants. Students explore what the fossil record tells us about geologic time, evolution, past environments and distributions of organisms. Three hours of lecture and two hours of laboratory a week. The course will include field trips to collect and interpret fossils and paleoenvironments.

GEOLOGY 314 Principles of Geomorphology Credits: 4
Explores the processes that shape the earth's surface. Focuses on the development and description of fluvial, glacial, eolian, and coastal landforms. Studies the influence of tectonic and climatic factors. Three hours lecture and two hours lab per week. Field trip.
Prerequisites: ENV-SCI 110R (or GEOLOGY 220).

GEOLOGY 321 Climate Change Impact Assessment and Policy Response Credits: 3
This course introduces how scientists assess observed climate change and predict future climate change. Lectures, discussions, problem sets, and term papers help students explore interactions among climate change, human activities and policy responses. It helps students achieve an appreciation for the role of accurate scientific information as foundation for shaping political agreements and policies on climate change.
Prerequisites: ENV-SCI 110R.

GEOLOGY 325 Sedimentology/Stratigraphy Credits: 4
Study of sedimentary rocks with special emphasis given to hand specimen identification based on mineral composition and textural features. Characteristics of sediments, transportation and environment of sediment deposition. Principles of stratigraphy, facies analysis and interpretation. Measurement and description of stratified rocks. Three hours lecture and two hours lab per week. Field trips.
Prerequisites: GEOLOGY 220.

GEOLOGY 326CZ Archaeology of Ancient Disasters Credits: 3
Remarkable human achievements are revealed by archaeological research, but the human past was frequently shaped as well by disasters of natural and human origin. Drawing on case studies that include data from the geosciences, archaeological excavations, and historical sources, this class examines how earth processes, the biosphere, and human cultural behavior were all sources of catastrophe. We begin with the geological context of disaster, including earthquakes, volcanic eruptions, climate change, and soil depletion. Next, we examine how ancient societies responded to disease, an ever present threat from the biological environment. Finally, we look at how ancient human groups were changed by stresses of cultural origin, including overpopulation, depletion of vital resources, and warfare. The study of ancient disasters not only gives us a wider understanding of human history, it may offer lessons for coping with future catastrophes.

GEOLOGY 335 Introduction to Waste Management Credits: 3
Prerequisites: ENV-SCI 110R, GEOG 150, GEOLOGY 220.

GEOLOGY 342 Igneous and Metamorphic Petrology Credits: 4
Introduction to the principles governing the classification, occurrence and origins of igneous and metamorphic rocks. Three hours lecture and discussion with two hours laboratory a week.
Prerequisites: GEOLOGY 312.

GEOLOGY 350 Earth Structures and Tectonics Credits: 4
This course is designed to teach students the basic techniques and approaches for problem solving in structural geology. The course will cover the fundamentals of crustal deformation and discuss joints, faulted and folded rocks in their plate tectonic context. Two hours of lectures and three hours of laboratory a week. Course will include local field trips and one weekend field trip.
Prerequisites: GEOLOGY 220, PHYSICS 210 (or PHYSICS 240).

GEOLOGY 370R Hydrogeology Credits: 3
Geology and hydrologic factors controlling the occurrence, movement, quality, recovery and development of water supply and distribution. Problems relating to urbanization of flood plains.

GEOLOGY 384 Frauds, Myths and Mysteries in Archaeology Credits: 3
Using archaeological hoaxes, myths, and mysteries from around the world – including local and regional examples - students will use science to make good judgments about information they receive in today's world. This course will demonstrate how science approaches questions about human antiquity and will show where pseudoscience falls short. (Lecture/on-line asynchronous).
Cross Listings: CLASSICS 384.
GEOLOGY 398 Geology Midcontinent Field Trip Credit: 1
A study of a selected area of the midcontinent U.S. with emphasis on locations to be visited during a three-day field trip (at the student’s expense). An opportunity to observe and study physical features and collect materials. Several scheduled one-hour meetings in addition to field trip. Lectures, discussion and reading assignments provide a background to place the area covered by the field trip into the overall geologic framework of the Midcontinent U.S. Descriptive report or written examination. Limited enrollment.
Prerequisites: Junior or senior level.

GEOLOGY 407 Archaeological Resources Management Credits: 3
This class examines contemporary issues managing archaeological resources. This class is intended for students seeking work in Cultural Resources Management (CRM); those already working CRM, or student anthropology, environmental studies, geology, geography, public administration and other fields likely to deal with archaeological and historical resources in a research or employment setting. This class does not require a background in archaeology.

GEOLOGY 408 Archaeological Field Survey Methods Credits: 3
This class offers instruction in the basic skills required to conduct field surveys in archaeology and other geosciences disciplines. In the classroom, students learn about the development of archaeology as a scientific discipline and how to recognize some of the basic field data sought by archaeologists. Students learn about mapping and land navigation techniques, The field phase of instruction includes visits to archaeological sites in the region.

GEOLOGY 409 Field School in Archaeology Credits: 1-5
This class offers students an opportunity to attend a field school in archaeology. Students will be taught how to: design archaeological research, set-up excavation, keep a wide range of excavation records, make maps and drawings, take photographs related to excavation problems, identify and recover a broad spectrum if artifact and faunal remains, collect samples for specialized analysis and use a wide range of excavation tools. This course will also introduce students to recording and analyzing excavated materials in the archaeological laboratory. Class size limited to 20 students.

GEOLOGY 411 Mineral Deposits Credits: 3
Distribution, origin and environmental implications of extractable resources including non-metallic deposits, ores, and selected energy resources.

GEOLOGY 416 Understanding and Living with Volcanoes Credits: 3
This course will examine the distribution, tectonic setting, and morphology of a range of volcano types on Earth and a few examples from other planets. Students will study volcanic processes including explosive and passive processes and how we investigate them. This will involve discussion of volcanic hazards and hazard assessment, risk communication, and the challenges of volcanic crises response. The course will also cover how volcanoes impact the local and global economy and Earth’s climate. Recommended preparation: GEOG 314 / GEOLOGY 314 or GEOLOGY 325 or GEOLOGY 342.
Prerequisites: GEOLOGY 220 or ENV-SCI 110R/110L, and GEOG 203 or GEOG 402.

GEOLOGY 434 Hazardous Waste Operations Management Credits: 2
Overview of federal regulations dealing with hazardous waste management, toxicology, hazard communication, site management, air monitoring, operating procedures, and health and safety. The course includes hands-on training on spill control, equipment use and emergency response. Practical training involves physical stress and participants must be in good physical health. This course satisfies OSHA’s 40 hour training requirement for hazardous waste personnel.

GEOLOGY 441 Environmental Geophysics Credits: 3
Fundamental theory and near-surface applications of the geophysical methods; (1) seismic refraction, (2) seismic reflection, (3) gravity, and (4) magnetics. Emphasis will be placed on the use of these methods in environmental and engineering investigations, addressing such issues as water resources, contaminant transport, geotechnical properties and archaeological protection. Course will include a field component illustrating application of selected techniques to local environmental problem.

GEOLOGY 446 Petroleum Geology Credits: 3
Study of the origin, concentration, exploration for and recovery of petroleum.
Prerequisites: GEOLOGY 220.

GEOLOGY 456 Field Methods in 3D Imaging of the Environment Credits: 3
This course is designed to teach students techniques to create high-resolution, 3D images of the environment and detailed topographic maps using digital technologies. The class will include instruction on various aerial systems and hand-held photography and the software required for data acquisition, processing, and interpretation.

GEOLOGY 460 Introduction to Geochemistry Credits: 3
Basic principles governing the origin, distribution and migration of the elements and the geochemical cycles operating in the earth’s atmosphere, hydrosphere and lithosphere.
Prerequisites: CHEM 212R, GEOLOGY 312.

GEOLOGY 471 Tectonics Credits: 3
A detailed inquiry into plate tectonics and the geophysical and geological data that define the motion of lithospheric plates. Global examples of divergent, convergent, and transform plate boundaries will be studied through lectures, discussions, problem sets, and term papers.
Prerequisites: GEOLOGY 325, GEOLOGY 350.
GEOLOGY 472 Earthquake Geology Credits: 3
A detailed inquiry into the study of present and past earthquakes as they are preserved in the seismological, geophysical, and geologic record. Global examples of earthquakes will be studied through lectures, discussions, problem sets, term papers, field trips and field projects.

GEOLOGY 490 Geology Field Camp Credits: 6
Study and practical involvement in the methods of geological mapping. The six-week course is conducted during the summer, partially in a field camp away from the Kansas City area. Students pay their own travel expenses to and from the field. Participation in the course involves individual mapping in the field area and field reports.

GEOLOGY 498 Undergraduate Field Research Credits: 1-5
The student will collaborate with fellow students and instructors in collection of original field geologic data at a location remote from campus. Field research will be carried out during semester intersessions or summer semesters.

GEOLOGY 499WI Geology Seminar Credits: 3
Students participate in discussions; present formal talks; and prepare written papers on selected topics.

Prerequisites: Senior standing, RooWriter.

GEOLOGY 5507 Archeological Resources Management Credits: 3
This class examines contemporary issues managing archaeological resources. This class is intended for students seeking work in Cultural Resources Management (CRM); those already working CRM, or student anthropology, environmental studies, geology, geography, public administration and other fields likely to deal with archaeological and historical research or employment setting. This class does not require a background in archaeology.

GEOLOGY 5508 Archaeological Field Survey Methods Credits: 3
This class offers instruction in the basic skills required to conduct field surveys in archaeology and other geosciences disciplines. In the classroom, students learn about the development of archaeology as a scientific discipline and how to recognize some of the basic field data sought by archeologists. Students learn about mapping and land navigation techniques. The field phase of instruction includes visits to archeological sites in the region.

GEOLOGY 5509 Field Study in Archaeology Credits: 1-5
This class offers students an opportunity to attend a field school in archaeology. Students will be taught how to: design archaeological research, set-up excavation, keep a wide range of excavation records, make maps and drawings, take photographs related to excavation problems, identify and recover a broad spectrum of artifact and faunal remains, collect samples for specialized analyses and use a wide range of excavation tools. This course will also introduce students to recording and analyzing excavated materials in the archaeological laboratory.

GEOLOGY 5512 Geology and Hazardous Waste Management Credits: 3
Nature, sources and characterization of hazardous waste; collection, transportation and disposal of hazardous wastes. Fundamentals of toxicology and risk assessment. Application of geologic principles and methods in the assessments and remediation of abandoned hazardous waste sites and contaminated aquifers. Review of selected case histories. Experts from government and private organizations will be invited to deliver guest lectures. An out-of-town field trip to a hazardous waste site is required. A term paper based on library research or an approved experimental project is required for graduate credit.

Prerequisites: GEOLOGY 325, GEOLOGY 342, GEOLOGY 350.

GEOLOGY 5513 Advanced Mineral Deposits Credits: 3
Distribution, origin and environmental implications of extractable resources including non-metallic deposits, ores, and selected energy resources.

Prerequisites: GEOLOGY 312, GEOLOGY 325, graduate standing.

GEOLOGY 5516 Understanding and Living with Volcanoes Credits: 3
This course will examine the distribution, tectonic setting, and morphology of a range of volcano types on Earth and a few examples from other planets. Students will study volcanic processes including explosive and passive processes and how we investigate them. This will involve discussion of volcanic hazards and hazard assessment, risk communication, and the challenges of volcanic crises response. The course will also cover how volcanoes impact the local and global economy and Earth’s climate.

GEOLOGY 5521 Advanced Methods for Earth and Environmental Science Credits: 3
This course will provide students with an inquiry-based learning experience that focuses on the application of field methods for understanding surface and subsurface earth processes and environmental issues. Students will collect field data at off campus site, conduct periodic monitoring, and analyze samples using departmental instrumentation.

Prerequisites: GEOLOGY 220 (or ENV-SCI 110R), GEOLOGY 220L (or ENV-SCI 110L).

GEOLOGY 5525 Quaternary Geology Credits: 3
The study of Quaternary processes, surficial deposits, and land forms. Course content will cover both the glaciated and nonglaciated portions of the United States as well as the interrelations between Quaternary geology and urbanization. Three hour lecture. Field trips.

Prerequisites: GEOLOGY 314, baccalaureate degree in geology.

GEOLOGY 5531 X-Ray Diffraction and Fluorescence Methods: X-Ray Mthds Geol/Anly Credits: 2
Theory and practical application of x-ray diffraction and fluorescence methods in characterizing geologic materials. Two hours lecture and one 2-hour lab per week for 8 weeks.
GEOLOGY 5532 Icpms Applications in Geology Credits: 2
Theory and practical application of Inductively-Coupled Plasma Mass Spectrometry in the geosciences and environmental sciences. Two hours lecture and discussion, and one 2-hour lab per week for 8 weeks.

GEOLOGY 5534 Hazardous Waste Operation Management Credits: 2
Overview of federal regulations dealing with hazardous waste management, toxicology, hazard communication, site management, air monitoring, operating procedures, and health and safety. The course includes hands-on training on spill control, equipment use and emergency use and emergency response. Practical training involves physical stress and participants must be in good physical health. This course satisfies OSHA’s 40 hour training requirement for hazardous waste personnel.

Prerequisites: GEOG 335 (or GEOLOGY 335).

GEOLOGY 5535 Aqueous Geochemistry Credits: 3
This course is directed to two objectives. First it will equip the students with a basic understanding of the geochemical principles and calculations which are directly related to environmental problems and second, it will provide the student with a basic understanding of specific problem areas in environmental geochemistry.

Prerequisites: CHEM 211, CHEM 212R, Baccalaureate degree in geology.

GEOLOGY 5536 Introduction to Scanning Electron Microscopy Methods Credits: 2
Practical introduction to the use of the scanning electron microscope and its accessories, including image production, elemental analysis, and elemental mapping of solid materials. Geological applications will be emphasized, but the methods presented will be useful for microscopic examination of solid materials in any discipline. 2 hours of lecture and lab per week for 8 weeks.

Prerequisites: Permission of the instructor.

GEOLOGY 5541 Environmental Geophysics Credits: 3
Fundamental theory and near-surface applications of the geophysical methods including seismic methods, potential methods, and electrical methods. Emphasis will be placed on the use of these methods in environmental and engineering investigations, addressing such issues as water resources, contaminant transport, geotechnical properties, and archaeological protection. Course will include a field component illustrating application of selected techniques to a local environmental problem.

Prerequisites: Baccalaureate degree in geology.

GEOLOGY 5542 Electrical Methods in Environmental Geophysics Credits: 3
Fundamental theory and near-surface applications of the electrical geophysical methods; (1) electrical resistivity, (2) electromagnetics, (3) ground penetrating radar, and (4) induced polarization. Emphasis will be placed on the use of these methods in environmental and engineering investigations, addressing such issues as water resources, contaminant transport, geotechnical properties and archaeological protection. Course will include a field component illustrating application of selected techniques to a local environmental problem.

Prerequisites: Baccalaureate degree in Geology.

GEOLOGY 5546 Petroleum Geology Credits: 3
This course addresses the geological habitat of oil and natural gas, the impacts of petroleum on society, subsurface mapping techniques, and the acquisition and interpretation of subsurface and production data.

Prerequisites: GEOLOGY 220, baccalaureate degree in geology.

GEOLOGY 5551 Geotechnics Credits: 4
Integration of the basic principles and concepts from material sciences, rock and soil mechanics, and civil engineering. Mechanical properties, geologic aspects and engineering classifications of earth materials and the effects of physical forces on their engineering behavior will be emphasized. Three hours of lecture and two hours of laboratory each week. Field trips.

Prerequisites: PHYSICS 210, PHYSICS 220, GEOLOGY 350.

GEOLOGY 5555 Environmental Impact Analysis Credits: 3
A systematic analysis of the spectrum of environmental changes related to human use and occupancy in urban settings. Study of the nature of activities such as industrialization, mining, urbanization and transportation, and their effect on the specific site and general region. Methods of measuring aesthetic and economic quality of the urban areas will be explored in an attempt to facilitate writing environmental impact statements.

Prerequisites: Baccalaureate degree in geology.

GEOLOGY 5559 Inquiry-Based Field Studies for Teachers Credits: 3-6
Inquiry-based studies in environmental science, environmental chemistry and geology involving collaborations between course participants, practicing scientists and professional educators. The course is designed especially for pre- and in-service teachers of all levels and contact areas to enhance critical thinking, problem solving and process skills as defined by state and national standards. Projects will balance field and lab studies with analysis and presentation of results through electronic, oral and written means.
GEOLOGY 5561 Geologic Mapping Credits: 3
Analysis of the stratigraphic section in the greater Kansas City area by field investigation. Compilation of descriptive data and the construction of detailed geologic maps. Practical problems to determine the most beneficial use of the land in an area that is rapidly becoming urbanized. Previous field mapping experience highly recommended.
Prerequisites: Baccalaureate degree in geology.

GEOLOGY 5570 Advanced Hydrogeology Credits: 3
This course will focus on advanced groundwater hydrology with emphasis on flow equations and computational modeling in various geologic settings. Students will be introduced to basic analytical skills to derive dynamics of groundwater flow, comprehensive understanding of aquifer characteristics, and interpretation of field based groundwater data using computational simulations.
Prerequisites: Baccalaureate degree in Geosciences, GEOL 370R, or permission of instructor.

GEOLOGY 5571 Tectonics Credits: 3
A detailed inquiry into plate tectonics and the geophysical and geological data that define the motion of lithospheric plates. Global examples of divergent, convergent, and transform plate boundaries will be studied through lectures, discussions, problem sets, and term papers.
Prerequisites: GEOLOGY 325, GEOLOGY 350.

GEOLOGY 5572 Earthquake Geology Credits: 3
This course is detailed inquiry into the study of present and past earthquakes as they are preserved in the seismological, geophysical, and geological record. Global examples of earthquakes will be studied through lectures, discussions, problem sets, term papers, field trips and field projects.
Prerequisites: GEOLOGY 350.

GEOLOGY 5597 Graduate Seminar in Geosciences Credits: 3
This graduate seminar examines emerging and current issues in Environmental and Urban Geosciences. Most environmental issues and their solutions are inherently multidisciplinary and are characterized by significant interactions between oceans, atmosphere, land, and society. In addition to examining these issues, this seminar engages students in the process of critically evaluating Earth and human systems studies. The course provides students with a fundamental background of today's important environmental challenges and experience doing the craft of science through critically reading, thinking, writing, and speaking.
Cross Listings: GEOG 5597: Graduate Seminar in Geosciences II

GEOLOGY 5598 Special Topics in Urban Environmental Geology Credits: 1-3
Individual research into practical geoscience problems in the urban environment. Provides opportunity for individual research in applied geology. Topic and method to be established by student and academic supervisor prior to enrollment.

GEOLOGY 5598A Special Topics In Urban Environmental Geology: Petroleum Geology Credits: 1-3
GEOLOGY 5598B Spec Topics In Urban Environmental Geology: Soil/Rock Mechanics Credits: 1-3
GEOLOGY 5598C Sp Topics In Urban Environmental Geol: Stratigraphy/Paleontology Credits: 1-3
GEOLOGY 5598D Spec Topics In Urban Environmental Geology-Environmental Geology Credits: 1-3
GEOLOGY 5598E Special Topics in Energy and Mineral Resources Credits: 1-3
This course provides students an opportunity for advanced independent research in energy and mineral resources.

GEOLOGY 5598H Special Topics in Urban Environmental Geology - Geochemistry and Mineralogy Credits: 1-3
Special Topics In Urban Environmental Geology - Geochemistry and Mineralogy
GEOLOGY 5598I Special Topics In Urban Environmental Geology Credits: 1-3
GEOLOGY 5598J Special Topics In Urban Environmental Geology: Environmental Sci Credits: 1-3
GEOLOGY 5598K Issues in Waste Management Credit: 1
This course focuses on the critical problems of managing the waste materials generated in our society. The course includes discussion of various types of waste-municipal solid waste, hazardous (industrial) waste, nuclear and medical wastes. Sources, handling, storage, transportation, treatment and disposal of these wastes are reviewed. Experts from government and the waste management industry give guest lectures.

GEOLOGY 5598M Special Topics in Geostatistics and Modeling Credits: 1-3
Advanced independent research in geostatistics and modeling techniques.

GEOLOGY 5599 Research and Thesis: Geology Credits: 1-9
Individual directed research by the student leading to the preparation of a formal written thesis and oral defense.

GEOLOGY 5690 Special Research Topics Credits: 1-3
Student will produce a major research paper suitable for publication under the direction of their instructor.

GEOLOGY 5699R Research And Dissertation Credits: 1-10
Research for dissertation in partial fulfillment of the Geosciences requirements for the Ph.D. degree.

GEOLOGY 5899 Required Graduate Enrollment Credit: 1
Environmental Studies Program

Program Description
The Environmental Studies Program provides students with the most innovative preparation in urban environmental issues and sustainability. The ES program engages a diverse student body with a strong foundation in environmental and geosciences. It includes relationships between humans, society, and the environment. In addition to core courses in environmental science, environmental courses emphasizing the humanities and social sciences provide necessary balance for addressing physical Earth issues in a societal context. Undergraduate students gain essential life skills, an appreciation for complex environmental processes, and respect for the diversity of environmental challenges in both Environmental Studies BA and Environmental Science BS degrees.

The department has offered geography and geology courses since 1934. The department also offers a master of science degree in environmental and urban geosciences. Students who designate geosciences as their coordinating discipline for the interdisciplinary doctoral program must meet admission and other requirements available from the department. See the School of Graduate Studies section of the graduate catalog for more information about doctoral programs.

Faculty
Program Director:
Caroline P. Davies

Participating Architecture, Urban Planning and Design Faculty:
Joy Swallow, Michael Frisch, Sungyup Kim, and Jacob Wagner

Participating Biology Faculty:
Aaron Reed

Participating Business Faculty:
Sandy Price, David Renz, and Li Sun

Participating Chemistry Faculty:
Kathleen Kilway, and J. David VanHorn

Participating Engineering Faculty:
ZhiQiang Chen, John Kevern, Deborah O’Bannon, and Jerry Richardson

Participating Economics Faculty:
Mathew Forstater and Michael Kelsay

Participating Education Faculty:
A. Louis Odom

Participating Geosciences Faculty:
Jimmy Adegoke, Caroline Davies, Steven Driever, Syed Hasan, Alison Graettinger, Wei Ji, Jejung Lee, James Murowchick, Tina Niemi, and Fengpeng Sun

Participating History Faculty:
Brian Frehner and John Herron

Participating Law Faculty:
John Ragsdale and Irma Russell

Participating Philosophy Faculty:
James Sheppard

Participating Political Science Faculty:
Reginald Bassa
Bachelor of Arts: Environmental Studies

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

• Describe the components and function of Earth systems.
• Explain environmental policy and ethical approaches to environmental issues and global challenges such as climate change, global water scarcity and ocean acidification, energy, consumption and waste management, and urban sustainability.
• Explain environmental challenges from multiple cultural perspectives and through world experiences.
• Apply advanced geographical knowledge, quantitative, and analytical skills to new settings and complex problems.
• Characterize environmental elements analytically and communicate their findings effectively.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>Focus C</td>
<td>(May be satisfied by the Constitution course requirement below)</td>
<td></td>
</tr>
<tr>
<td>Focus Elective</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
</tbody>
</table>

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>3</strong></td>
</tr>
</tbody>
</table>

1  Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Arts and Humanities Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Science and Math Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
<td></td>
<td></td>
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<tr>
<td>Foreign Language (3rd Semester Level)</td>
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<td>9</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course; Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>Laboratory Science Experience (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>27</strong></td>
</tr>
</tbody>
</table>

1  ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

2  This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

Major Requirements

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Core Requirements</strong></td>
<td></td>
</tr>
</tbody>
</table>
ENVS 110R & ENV-SCI 110L
Understanding the Earth: Introduction to Environmental Science and Laboratory and Understanding the Earth Laboratory (Focus B)

ENV-SCI 210
Issues in Environmental Science (Focus B)

GEOG 203
Introduction to Geographic Information Systems

or UPD 203
GIS For Urban Planning

STAT 235/CJC 210/SOCIOL 263
Elementary Statistics

Select one of the following WI courses:
- ENV-STDY 499WI
- GEOG 499WI
- GEOLOGY 499WI
- GEOG 403WI

Required Supporting Social Sciences

Select four of the following from three different disciplines:
- ECON 420
  Environment, Resources And Economic Growth
- GEOG 406
  Global Environmental Change
  or GEOG 449
  Global Water and Sustainability
- HISTORY 365A
  American Environmental History
- PHILOS 370
  Environmental Ethics And Policy
- UPD 432
  Urban Environment Planning And Design

Select one of the following:

Divisions of Learning

Select three of the following (at least one from each division of learning):

Natural Sciences (NS):
- BIOLOGY 302
  General Ecology
- BIOLOGY 303
  Invertebrate Zoology
- BIOLOGY 305
  Marine and Freshwater Biology
- BIOLOGY 308
  Vertebrate Zoology
- BIOLOGY 346
  Plant Biology
- CIV-ENGR 454
  River Stability and Scour
- CHEM 211 & 211L
  General Chemistry I and Experimental General Chemistry I
- CHEM 212R & CHEM 212LR
  General Chemistry II and Experimental General Chemistry II
- ENV-SCI 332CZ
  Environmental Sustainability
  or ANCH 301
  Environmental Sustainability
- ENV-SCI 449
  Global Water and Sustainability
- ENV-SCI 496
  Environmental Internship
- ENV-STDY 430
  Soil and Groundwater Remediation

All Physical Geography courses are applicable as natural science electives:
- GEOG 303
  Weather and Climate
- GEOG 314
  Principles of Geomorphology
- GEOG 360
  Principles of Biogeography
- GEOG 401
  Advanced Geographic Information Science
- GEOG 402
  Environmental Remote Sensing and Digital Image Analysis
- GEOG 405
  Global Environmental Change
- GEOG 430
  Energy Resources
- GEOG 435
  Geoarchaeology
- GEOG 442
  Quaternary Environments
- GEOG 448
  Satellite Climatology

Any Geology course may be used for additional natural science electives, but the following courses are particularly relevant to the environmental studies major:
- GEOLOGY 312
  Mineralogy
- GEOLOGY 314
  Principles of Geomorphology
### Tools for Planning and Fulfilling Academic Requirements

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.
UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student's officially recorded (Office of Registration and Records) and "what if" plans of study. This evaluation is used to certify all graduation requirements.

UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Science: Environmental Science

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

- Describe the components and function of Earth systems.
- Explain environmental policy and ethical approaches to environmental issues and global challenges such as climate change, global water scarcity and ocean acidification, energy, consumption and waste management, and urban sustainability.
- Explain environmental challenges from multiple cultural perspectives and through world experiences.
- Apply advanced geographical knowledge, quantitative, and analytical skills to new settings and complex problems.
- Characterize environmental elements analytically and communicate their findings effectively.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I (^1)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II (^1)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III (^1)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
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<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A (^1)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied by the Constitution course requirement below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus Elective (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

‘Total credits’ in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 21

\(^1\) See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
Constitution Course Requirement

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<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
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<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
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</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

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<thead>
<tr>
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<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Arts and Humanities Division of CAS 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science and Math Division of CAS (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course; Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
<td></td>
</tr>
</tbody>
</table>

Laboratory Science Experience (Satisfied in program requirements below)

Total Credits 9

1 ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

2 This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

Major Requirements

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENV-SCI 110R</td>
<td>Understanding the Earth: Introduction to Environmental Science and Laboratory and Understanding the Earth Laboratory (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>ENV-SCI 210</td>
<td>Issues in Environmental Science (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>ENV-SCI/GEOG/GEOL 303</td>
<td>Weather and Climate</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 203</td>
<td>Introduction to Geographic Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>or UPD 203</td>
<td>GIS For Urban Planning</td>
<td></td>
</tr>
<tr>
<td>GEOL 250L</td>
<td>Field Methods in Earth and Environmental Science</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one of the following WI courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENV-STDY 499WI</td>
<td>Environmental Studies Practicum</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 499WI</td>
<td>Geography Seminar</td>
<td></td>
</tr>
<tr>
<td>GEOLOGY 499WI</td>
<td>Geology Seminar</td>
<td></td>
</tr>
<tr>
<td>GEOG 403WI</td>
<td>History and Philosophy of Geoscience</td>
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</tr>
</tbody>
</table>

**Required Supporting Sciences**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 108 &amp; 108L</td>
<td>General Biology I and General Biology I Laboratory (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>BIOLOGY 109 &amp; 109L</td>
<td>General Biology II and General Biology II Laboratory (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>or GEOG 360</td>
<td>Principles of Biogeography</td>
<td></td>
</tr>
<tr>
<td>CHEM 211 &amp; 211L</td>
<td>General Chemistry I and Experimental General Chemistry I (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 212R &amp; CHEM 212LR</td>
<td>General Chemistry II and Experimental General Chemistry II (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td>STAT 235/CJC 210/SOCIOU 263</td>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

Select three of the following (at least one from each of three division of learning):

9 credits

**Natural Sciences (NS):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 302</td>
<td>General Ecology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 303</td>
<td>Invertebrate Zoology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 305</td>
<td>Marine and Freshwater Biology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 308</td>
<td>Vertebrate Zoology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 346</td>
<td>Plant Biology</td>
<td></td>
</tr>
<tr>
<td>CHEM 387</td>
<td>Environmental Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CIV-ENGR 454</td>
<td>River Stability and Scour</td>
<td></td>
</tr>
<tr>
<td>ENV-SCI 332CZ</td>
<td>Environmental Sustainability</td>
<td></td>
</tr>
<tr>
<td>or ANCH 301</td>
<td>Environmental Sustainability</td>
<td></td>
</tr>
<tr>
<td>ENV-SCI 449</td>
<td>Global Water and Sustainability</td>
<td></td>
</tr>
<tr>
<td>ENV-SCI 496</td>
<td>Environmental Internship</td>
<td></td>
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</tbody>
</table>

All Physical Geography courses are applicable as natural science electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 314</td>
<td>Principles of Geomorphology</td>
<td></td>
</tr>
<tr>
<td>GEOG 360</td>
<td>Principles of Biogeography</td>
<td></td>
</tr>
<tr>
<td>GEOG 401</td>
<td>Advanced Geographic Information Science</td>
<td></td>
</tr>
<tr>
<td>GEOG 402</td>
<td>Environmental Remote Sensing and Digital Image Analysis</td>
<td></td>
</tr>
<tr>
<td>GEOG 406</td>
<td>Global Environmental Change</td>
<td></td>
</tr>
<tr>
<td>GEOG 426</td>
<td>Paleoeology: Microfossils and Climate Change</td>
<td></td>
</tr>
<tr>
<td>GEOG 430</td>
<td>Energy Resources</td>
<td></td>
</tr>
<tr>
<td>GEOG 435</td>
<td>Geoarchaeology</td>
<td></td>
</tr>
<tr>
<td>GEOG 444</td>
<td>Spatial Data Analysis</td>
<td></td>
</tr>
<tr>
<td>GEOG 448</td>
<td>Satellite Climatology</td>
<td></td>
</tr>
<tr>
<td>GEOG 449</td>
<td>Global Water and Sustainability</td>
<td></td>
</tr>
</tbody>
</table>

Any Geology course may be used for additional natural science electives, but the following courses are particularly relevant to the Environmental Studies major:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOLOGY 312</td>
<td>Mineralogy</td>
<td></td>
</tr>
<tr>
<td>GEOLOGY 313</td>
<td>Evolution and the Geologic Record</td>
<td></td>
</tr>
<tr>
<td>GEOLOGY 314</td>
<td>Principles of Geomorphology</td>
<td></td>
</tr>
<tr>
<td>GEOLOGY 326CZ</td>
<td>Cc:Archaeology of Ancient Disasters</td>
<td></td>
</tr>
<tr>
<td>or ANCH 302</td>
<td>Archaeology of Ancient Disasters</td>
<td></td>
</tr>
</tbody>
</table>
Math and Science Requirements

The Bachelor of Science degree requires a minimum of 60 hours in math and science coursework. The number of credit hours needed to meet this minimum requirement are listed below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Additional Math/Science Coursework</td>
<td>14</td>
</tr>
</tbody>
</table>

General Electives

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>21</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0

Total Credit Hours: 120

Tools for Planning and Fulfilling Academic Requirements

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.
UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student's officially recorded (Office of Registration and Records) and "what if" plans of study. This evaluation is used to certify all graduation requirements.

UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Environmental Studies Minor

Student Learning Outcomes

Students graduating from this program will:

• Environmental Studies students can describe the components and function of Earth systems, have knowledge of environmental policy and ethical approaches to environmental issues, and have engaged in global challenges such as climate change, global water scarcity and ocean acidification, energy, consumption and waste management, and urban sustainability.
• Environmental Studies students will be actively involved with diverse communities throughout their course work and understand environmental challenges from multiple cultural perspectives and through world experiences.
• Environmental Studies students will demonstrate this learning through the application, across the curriculum, of advanced geographical knowledge, quantitative, and analytical skills in their application to new settings and complex problems.
• Environmental Studies students will have the ability to characterize environmental elements analytically and communicate their findings effectively.

Environmental Studies Minor (B.A.)

B.A. Program Coordinator:
Caroline Davies, Geosciences, (816) 235-1335;

Students pursuing the bachelor of arts degree who wish to obtain a minor in environmental studies must take at least 18 credit hours of coursework from the following list, a minimum of nine credit hours at the 300- or 400-level and a minimum of nine credit hours at UMKC. The program of study is to be planned with a program coordinator.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENV-SCI 110R</td>
<td>Understanding the Earth: Introduction to Environmental Science and Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>ENV-SCI 110L</td>
<td>Understanding the Earth Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>ENV-SCI 210</td>
<td>Issues in Environmental Science</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives

Select a minimum of one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 420</td>
<td>Environment, Resources And Economic Growth 1</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 364R</td>
<td>Nature, Culture And The Human Experience 1</td>
<td>1</td>
</tr>
<tr>
<td>PHILOS 370</td>
<td>Environmental Ethics And Policy 1</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 435</td>
<td>Politics Of The Environment 1</td>
<td>1</td>
</tr>
</tbody>
</table>

See the electives listed under B.S. Environmental Studies

Total Credits: 18

1 May not be counted in both required and elective categories.

Courses which do not apply as credit in the Minor program are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 417</td>
<td>Special Topics</td>
<td>1</td>
</tr>
<tr>
<td>GEOG/GEOLOGY 398</td>
<td>Field Trip</td>
<td>1</td>
</tr>
<tr>
<td>GEOG/GEOLOGY 499WI</td>
<td>Geography Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

Environmental Studies Minor (B.S.)

Student Learning Outcomes

• Environmental Studies students can describe the components and function of Earth systems, have knowledge of environmental policy and ethical approaches to environmental issues, and have engaged in global challenges such as climate change, global water scarcity and ocean acidification, energy, consumption and waste management, and urban sustainability.
• Environmental Science/Studies students will be actively involved with diverse communities throughout their course work and understand environmental challenges from multiple cultural perspectives and through world experiences.
• Environmental Studies students will demonstrate this learning through the application, across the curriculum, of advanced geographical knowledge, quantitative, and analytical skills in their application to new settings and complex problems.
Environmental Studies students will have the ability to characterize environmental elements analytically and communicate their findings effectively.

**B.S. Program Coordinator:**
Caroline Davies, Geosciences, (816) 235-1335;

Students pursuing the bachelor of science degree who wish to obtain a minor in environmental studies must take at least 18 credit hours of coursework from the following list, a minimum of nine credit hours at the 300- or 400-level and a minimum of nine credit hours at UMKC. The program of study is to be planned with a program coordinator.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENV-SCI 110R</td>
<td>Understanding the Earth: Introduction to Environmental Science and Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>ENV-SCI 110L</td>
<td>Understanding the Earth Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>ENV-SCI 210</td>
<td>Issues in Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 160</td>
<td>Chemistry, Society, And The Environment</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives**

Select a minimum of one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 420</td>
<td>Environment, Resources And Economic Growth ¹</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 364R</td>
<td>Nature, Culture And The Human Experience ¹</td>
<td>1</td>
</tr>
<tr>
<td>PHILOS 370</td>
<td>Environmental Ethics And Policy ¹</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 435</td>
<td>Politics Of The Environment ¹</td>
<td>1</td>
</tr>
</tbody>
</table>

See the electives listed under B.S. Environmental Studies

Total Credits 18

¹ May not be counted in both required and elective categories.

Courses which do not apply as credit in the Minor program are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 417</td>
<td>Special Topics</td>
<td>1</td>
</tr>
<tr>
<td>GEOG/GEOLOGY 398</td>
<td>Field Trip</td>
<td>1</td>
</tr>
<tr>
<td>GEOG/GEOLOGY 499WI</td>
<td>Geography Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>
Environmental Sustainability Minor

Program Description

Global populations are becoming predominantly urban and the state of the environment is central to issues of quality of life, health and safety. The Sustainability minor program provides students with the most innovative preparation in urban environmental sustainability through course work that cross cuts multiple disciplines and focuses on integrative solutions. Students develop a foundation knowledge in Earth systems. Students engage the challenges of sustainability through course work and community problem solving in sustainable thinking, planning, policy, and design. Undergraduate students gain essential life skills, a foundation in complex environmental and human systems, and critical problem solving skills.

Student Learning Outcomes

Students graduating from this program will:

• Sustainability students can describe the interactions and feedbacks of Earth systems, have knowledge of environmental policy and urban planning, and are engaged in sustainability issues at many scales.

• Sustainability students will be actively involved with diverse communities throughout their course work, and assess sustainability challenges from multiple cultural perspectives and through world experiences.

• Sustainability students will demonstrate this learning through the application of advanced sustainable knowledge, quantitative, and analytical skills in their application to new settings and complex problems.

• Sustainability students will have the ability to characterize human-environmental interactions analytically and communicate their findings effectively.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Take three hours of the following:</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ENV-SCI 496</td>
<td>Environmental Internship</td>
<td></td>
</tr>
<tr>
<td>Earth Systems and Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>3-4</td>
</tr>
<tr>
<td>GEOG 406</td>
<td>Global Environmental Change</td>
<td></td>
</tr>
<tr>
<td>ENV-SCI 449</td>
<td>Global Water and Sustainability</td>
<td></td>
</tr>
<tr>
<td>GEOG 360</td>
<td>Principles of Biogeography</td>
<td></td>
</tr>
<tr>
<td>GEOG 430</td>
<td>Energy Resources</td>
<td></td>
</tr>
<tr>
<td>Sustainable Thinking</td>
<td></td>
<td>1-3</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENV-SCI 332CZ</td>
<td>Environmental Sustainability</td>
<td></td>
</tr>
<tr>
<td>or ANCH 301</td>
<td>Environmental Sustainability</td>
<td></td>
</tr>
<tr>
<td>HISTORY 364R</td>
<td>Nature, Culture And The Human Experience</td>
<td></td>
</tr>
<tr>
<td>PHILOS 370</td>
<td>Environmental Ethics And Policy</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 380</td>
<td>Political Science And Politics</td>
<td></td>
</tr>
<tr>
<td>Sustainable Planning and Policy</td>
<td></td>
<td>1-3</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UPD 340</td>
<td>Neighborhood And Community Development</td>
<td></td>
</tr>
<tr>
<td>UPD 430</td>
<td>Planning For Historic Preservation</td>
<td></td>
</tr>
<tr>
<td>Sustainable Design</td>
<td></td>
<td>1-4</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GEOG/GEOLOGY 335</td>
<td>Introduction to Waste Management</td>
<td></td>
</tr>
<tr>
<td>UPD 432</td>
<td>Urban Environment Planning And Design</td>
<td></td>
</tr>
<tr>
<td>Analytical Tools</td>
<td></td>
<td>3-4</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECON 420</td>
<td>Environment, Resources And Economic Growth</td>
<td></td>
</tr>
<tr>
<td>GEOG 401</td>
<td>Advanced Geographic Information Science</td>
<td></td>
</tr>
<tr>
<td>GEOG 450</td>
<td>GIS Fundamentals for Research Applications</td>
<td></td>
</tr>
<tr>
<td>GEOG 444</td>
<td>Spatial Data Analysis</td>
<td></td>
</tr>
</tbody>
</table>
Courses which do not apply as credit in the Minor program are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 417</td>
<td>Special Topics</td>
<td>1</td>
</tr>
<tr>
<td>GEOG/GEOLOGY 398</td>
<td>Field Trip</td>
<td>1</td>
</tr>
<tr>
<td>GEOG/GEOLOGY 499WI</td>
<td>Geography Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

**Requirements**

Minimum of 18 hours, Minimum of 9 hours from UMKC (not transferred)

Minimum of 9 Junior/Senior (300/400) level courses, Total hours determined by department. Academic Minors are optional. The minor will not appear on the Commencement Program or diploma but will be noted on the transcript.
Geography and Geology Programs

Program Description

The department has offered geography and geology courses since 1934. The geography and geology programs of the Department of Geosciences include both bachelor of arts and bachelor of science degrees.

Faculty

Professors:
Steven L. Driever (principal undergraduate geography advisor), Syed E. Hasan (Director, CAER), Wei Ji (graduate Geography advisor and GIS Program Director), Tina Niemi (principal undergraduate Geology advisor)

Associate Professors:
Jimmy Adegoke, Caroline P. Davies (undergraduate Environmental Studies advisor, BS; Director, Environmental Studies Program), Daniel P. Hopkins (undergraduate Environmental Studies advisor, B.A.), Jejung Lee (principal graduate advisor and IPhD Coordinator) and James B. Murowchick (Chair)

Associate Teaching Professors:
Julie L. Urbanik

Professors Emeriti:
Raymond M. Coveney, Jr., Richard J. Gentile, Paul L. Hilpman, Eldon J. Parizek
Bachelor of Science/Bachelor of Arts: Geography

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Bachelor of Arts: Geography

Student Learning Outcomes
Students graduating from this program will:

• Understand human-environmental relationships and their spatial dimensions in various geographic areas, from local places to the entire world.
• Integrate knowledge from the humanities, social sciences, and natural sciences and apply that information to places.
• Know how to design, produce, and interpret maps using modern technology. Evidence of success is provided by performance on our exit examinations, admission to graduate schools, and ultimately the successful careers in geosciences pursued by our graduates.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Focus B (Satisfied in program requirements below)
Focus C (May be satisfied by the Constitution course requirement below)
Focus Elective 1

1Total credits in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 24

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) ^1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) ^1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) ^1</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) ^1</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 3

^1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

• Take an equivalent course from the list above at a regionally accredited institution.
• Earn credit for one of the above courses through AP, IB, or CLEP.
• Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
• Have a previous bachelors degree (or higher) from a regionally accredited institution.
• Have an Associate of Arts degree from a regionally accredited institution.
• Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts and Humanities Division of CAS ^1</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Science and Math Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign Language (3rd Semester Level)</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course)</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>Laboratory Science Experience (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 30

^1 ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.
^2 This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

Major Requirements

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENV-SCI 110R</td>
<td>Understanding the Earth: Introduction to Environmental Science and Laboratory (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>ENV-SCI 110L</td>
<td>Understanding the Earth Laboratory</td>
<td>2</td>
</tr>
</tbody>
</table>
### Bachelor of Science/Bachelor of Arts: Geography

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 200</td>
<td>World Geography I</td>
<td>3</td>
</tr>
<tr>
<td>or GEOG 202</td>
<td>World Geography II</td>
<td></td>
</tr>
<tr>
<td>GEOG 203</td>
<td>Introduction to Geographic Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 398</td>
<td>Field Trip</td>
<td>1</td>
</tr>
<tr>
<td>GEOG 402</td>
<td>Environmental Remote Sensing and Digital Image Analysis</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 499WI</td>
<td>Geography Seminar</td>
<td>3</td>
</tr>
<tr>
<td>or GEOG 403WI</td>
<td>History and Philosophy of Geoscience</td>
<td></td>
</tr>
</tbody>
</table>

#### Human and Regional Geography

Select four of the following: **12**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 210</td>
<td>Human Geography</td>
</tr>
<tr>
<td>GEOG 309</td>
<td>Urban Geography</td>
</tr>
<tr>
<td>GEOG 332</td>
<td>Cultural Geography</td>
</tr>
<tr>
<td>GEOG 333</td>
<td>Geographic Elements of Urban Planning</td>
</tr>
<tr>
<td>GEOG 340</td>
<td>Geography of the United States and Canada</td>
</tr>
<tr>
<td>GEOG 341</td>
<td>Geography of South America</td>
</tr>
<tr>
<td>GEOG 342</td>
<td>Geography of Mexico, Central America and the Caribbean</td>
</tr>
<tr>
<td>GEOG 350</td>
<td>Geography of Europe</td>
</tr>
<tr>
<td>GEOG 403WI</td>
<td>History and Philosophy of Geoscience (if not satisfied in program requirements above)</td>
</tr>
</tbody>
</table>

Other Regional Courses: One or two 300-level courses

#### Physical Geography

Select three of the following: **9**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG/ENV-SCI/GEOLOGY 303</td>
<td>Weather and Climate</td>
</tr>
<tr>
<td>GEOG 314</td>
<td>Principles of Geomorphology</td>
</tr>
<tr>
<td>GEOG 335</td>
<td>Introduction to Waste Management</td>
</tr>
<tr>
<td>GEOG 336</td>
<td>Principles of Soil Science</td>
</tr>
<tr>
<td>GEOG 360</td>
<td>Principles of Biogeography</td>
</tr>
<tr>
<td>GEOG 401</td>
<td>Advanced Geographic Information Science</td>
</tr>
<tr>
<td>GEOG 402</td>
<td>Environmental Remote Sensing and Digital Image Analysis</td>
</tr>
<tr>
<td>GEOG 404</td>
<td>Biogeography and Landscape Ecology</td>
</tr>
<tr>
<td>GEOG 406</td>
<td>Global Environmental Change</td>
</tr>
<tr>
<td>GEOG 426</td>
<td>Paleoeocology: Microfossils and Climate Change</td>
</tr>
<tr>
<td>GEOG 430</td>
<td>Energy Resources</td>
</tr>
<tr>
<td>GEOG 435</td>
<td>Geoarchaeology</td>
</tr>
<tr>
<td>GEOG 442</td>
<td>Quaternary Environments</td>
</tr>
<tr>
<td>GEOG 444</td>
<td>Spatial Data Analysis</td>
</tr>
<tr>
<td>GEOG 448</td>
<td>Satellite Climatology</td>
</tr>
<tr>
<td>GEOG 450</td>
<td>Gis Fundamentals for Research Applications</td>
</tr>
</tbody>
</table>

#### Supporting Requisites

A fourth semester of a foreign language **3**

**Total Credits: 44**

---

1. Courses may be offered on a rotation basis, please consult your advisor for current availability.

### General Electives

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 450</td>
<td>Gis Fundamentals for Research Applications</td>
<td></td>
</tr>
</tbody>
</table>

**Minimum GPA: 2.0**

**Total Credit Hours: 120**
Bachelor of Science: Geography

Student Learning Outcomes

Students graduating from this program will:

• Understand human-environmental relationships and their spatial dimensions in various geographic areas, from local places to the entire world.
• Integrate knowledge from the humanities, social sciences, and natural sciences and apply that information to places.
• Know how to design, produce, and interpret maps using modern technology. Evidence of success is provided by performance on our exit examinations, admission to graduate schools, and ultimately the successful careers in geosciences pursued by our graduates.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>Focus C</td>
<td>(May be satisfied by the Constitution course requirement below)</td>
<td></td>
</tr>
<tr>
<td>Focus Elective</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
</tbody>
</table>

'Total credits’ in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

• Take an equivalent course from the list above at a regionally accredited institution.
• Earn credit for one of the above courses through AP, IB, or CLEP.
• Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
• Have a previous bachelors degree (or higher) from a regionally accredited institution.
• Have an Associate of Arts degree from a regionally accredited institution.
• Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

**College of Arts & Sciences Degree Requirements**

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
<td>Arts and Humanities Division of CAS</td>
<td>6</td>
</tr>
<tr>
<td>Science and Math Division of CAS</td>
<td>Social and Behavioral Sciences Division of CAS</td>
<td>6</td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course)</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>Laboratory Science Experience (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>21</td>
</tr>
</tbody>
</table>

1 ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

2 This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

**Major Requirements**

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Required Courses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENV-SCI 110R &amp; ENV-SCI 110L</td>
<td>Understanding the Earth: Introduction to Environmental Science and Laboratory and Understanding the Earth Laboratory (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td>GEOG 200</td>
<td>World Geography I</td>
<td>3</td>
</tr>
<tr>
<td>or GEOG 202</td>
<td>World Geography II</td>
<td></td>
</tr>
<tr>
<td>GEOG 203</td>
<td>Introduction to Geographic Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 303</td>
<td>Weather and Climate</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 398</td>
<td>Field Trip</td>
<td>1</td>
</tr>
<tr>
<td>GEOG 499WI</td>
<td>Geography Seminar</td>
<td>3</td>
</tr>
<tr>
<td>or GEOG 403WI</td>
<td>History and Philosophy of Geoscience</td>
<td></td>
</tr>
<tr>
<td><strong>Human and Regional Geography</strong></td>
<td>Select three of the following:</td>
<td>9</td>
</tr>
<tr>
<td>GEOG 210</td>
<td>Human Geography</td>
<td></td>
</tr>
<tr>
<td>GEOG 309</td>
<td>Urban Geography</td>
<td></td>
</tr>
<tr>
<td>GEOG 332</td>
<td>Cultural Geography</td>
<td></td>
</tr>
<tr>
<td>GEOG 333</td>
<td>Geographic Elements of Urban Planning</td>
<td></td>
</tr>
<tr>
<td>GEOG 340</td>
<td>Geography of the United States and Canada</td>
<td></td>
</tr>
<tr>
<td>GEOG 341</td>
<td>Geography of South America</td>
<td></td>
</tr>
<tr>
<td>GEOG 342</td>
<td>Geography of Mexico, Central America and the Caribbean</td>
<td></td>
</tr>
<tr>
<td>GEOG 350</td>
<td>Geography of Europe</td>
<td></td>
</tr>
<tr>
<td>GEOG 351</td>
<td>Regional Geography of the Middle East</td>
<td></td>
</tr>
<tr>
<td>GEOG 403WI</td>
<td>History and Philosophy of Geoscience (if not satisfied in program requirements above)</td>
<td></td>
</tr>
<tr>
<td><strong>Physical Geography</strong></td>
<td>Select four of the following:</td>
<td>12</td>
</tr>
<tr>
<td>GEOG/ENV-SCI/GEOL 303</td>
<td>Weather and Climate</td>
<td></td>
</tr>
<tr>
<td>GEOG 314</td>
<td>Principles of Geomorphology</td>
<td></td>
</tr>
<tr>
<td>GEOG 336</td>
<td>Principles of Soil Science</td>
<td></td>
</tr>
<tr>
<td>GEOG 360</td>
<td>Principles of Biogeography</td>
<td></td>
</tr>
</tbody>
</table>
GEOG 401  Advanced Geographic Information Science
GEOG 402  Environmental Remote Sensing and Digital Image Analysis
GEOG 406  Global Environmental Change
GEOG 426  Paleoenecology: Microfossils and Climate Change
GEOG 430  Energy Resources
GEOG 435  Geoarchaeology
GEOG 442  Quaternary Environments
GEOG 444  Spatial Data Analysis
GEOG 448  Satellite Climatology
GEOG 450  Gis Fundamentals for Research Applications (with lab)

Supporting Requisites
STAT 235  Elementary Statistics (Focus B)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Credits</td>
<td>44</td>
</tr>
</tbody>
</table>

Courses may be offered on a rotation basis, please consult your advisor for current availability.

Math and Science Requirements
The Bachelor of Science degree requires a minimum of 60 hours in math and science coursework. The number of credit hours needed to meet this minimum requirement are listed below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Additional Math/Science Coursework</td>
<td>19</td>
</tr>
</tbody>
</table>

General Electives
Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>12</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0
Total Credit Hours: 120

Tools for Planning and Fulfiling Academic Requirements
UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Science/Bachelor of Arts: Geology

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Bachelor of Arts: Geology

Student Learning Outcomes

Students graduating from this program will:

- Be able to identify minerals and rocks.
- Be able to interpret stratigraphy based on multiple lines of evidence.
- Be able to analyze data to quantify geological features and structures.
- Be able to utilize field data to produce maps used in solving geological problems.
- Be able to report effectively on critically evaluated geological data.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Focus B (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied by the Constitution course requirement below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus Elective (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits

21

1

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
<td>Arts and Humanities Division of CAS</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Science and Math Division of CAS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social and Behavioral Sciences Division of CAS</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Foreign Language (3rd Semester Level)</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Junior/Senior-Level Writing Intensive Course (Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 110, MATH 116, or any 200-level or above Math/Stat course (Satisfied in program requirements below)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Laboratory Science Experience (Satisfied in program requirements below)</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 24

1 ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

2 This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

Major Requirements

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses 1</td>
<td>General Geology and General Geology Laboratory (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td>GEOLOGY 220 &amp; 220L</td>
<td>Field Methods in Earth and Environmental Science (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>or GEOLOGY 251L</td>
<td>Field Methods in Earth and Environmental Science: Off-Campus</td>
<td></td>
</tr>
</tbody>
</table>
Bachelor of Science/Bachelor of Arts: Geology

**Bachelor of Science/Bachelor of Arts: Geology**

**GEOLOGY 312**  
Mineralogy  
Credit: 4

**GEOLOGY 325**  
Sedimentology/Stratigraphy  
Credit: 4

**GEOLOGY 350**  
Earth Structures and Tectonics  
Credit: 4

**GEOLOGY 490**  
Geology Field Camp  
Credit: 6

**GEOLOGY 499WI**  
Geology Seminar  
Credit: 3

**B.A. Supporting Requisites**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 108 &amp; 108L</td>
<td>General Biology I and General Biology I Laboratory (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 211 &amp; 211L</td>
<td>General Chemistry I and Experimental General Chemistry I (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 212R &amp; CHEM 212LR</td>
<td>General Chemistry II and Experimental General Chemistry II (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td>GEOG 444</td>
<td>Spatial Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>or STAT 235</td>
<td>Elementary Statistics</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 210</td>
<td>General Physics I (Focus B)</td>
<td>4</td>
</tr>
</tbody>
</table>

**Electives**

Select four of the following courses:  
Credit: 12

- GEOG 203: Introduction to Geographic Information Systems
- GEOG 435: Geoarchaeology
- GEOLOGY 313: Evolution and the Geologic Record
- GEOLOGY/GEOG 314: Principles of Geomorphology
- GEOLOGY 342: Igneous and Metamorphic Petrology
- GEOLOGY 370R: Hydrogeology
- GEOLOGY 411: Mineral Deposits
- GEOLOGY/GEOG/ENV-SCI 416: Understanding and Living with Volcanoes
- GEOLOGY 441: Environmental Geophysics
- GEOLOGY 456: Field Methods in 3D Imaging of the Environment
- GEOLOGY 460: Introduction to Geochemistry
- GEOLOGY 471: Tectonics
- GEOLOGY 472: Earthquake Geology

**Total Credits: 62**

1. Students must receive a grade of no lower than C- in all major required courses and major elective courses; and achieve an overall minimum GPA of 2.0 in the major with the exception of the supporting requisites section above.

2. High school biology satisfies this requirement.

**General Electives**

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>10</td>
</tr>
</tbody>
</table>

**Minimum GPA: 2.0**

**Total Credit Hours: 120**

**Bachelor of Science: Geology**

**Student Learning Outcomes**

Students graduating from this program will:

- Be able to identify minerals and rocks.
- Be able to interpret stratigraphy based on multiple lines of evidence.
• Be able to analyze data to quantify geologic features and structures.
• Utilize field data to produce maps used in solving geological problems.
• Be able to report effectively on critically evaluated geological data.

Program Requirements
Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td>(Satisfied in program requirements below)</td>
<td>3</td>
</tr>
<tr>
<td>Focus C</td>
<td>(May be satisfied by the Constitution course requirement below)</td>
<td></td>
</tr>
<tr>
<td>Focus Elective</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
</tbody>
</table>

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement
Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:
• Take an equivalent course from the list above at a regionally accredited institution.
• Earn credit for one of the above courses through AP, IB, or CLEP.
• Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
• Have a previous bachelors degree (or higher) from a regionally accredited institution.
• Have an Associate of Arts degree from a regionally accredited institution.
• Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements
Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.
### Bachelor of Science/Bachelor of Arts: Geology

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arts and Humanities Division of CAS</td>
<td>[1]</td>
<td>6</td>
</tr>
<tr>
<td>Science and Math Division of CAS (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course; Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>Laboratory Science Experience (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

1. ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.
2. This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

### Major Requirements

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses [1]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GEOLOGY 220</td>
<td>General Geology and General Geology Laboratory (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td>&amp; 220L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GEOLOGY 250L or GEOLOGY 251L</td>
<td>Field Methods in Earth and Environmental Science: Off-Campus</td>
<td>3</td>
</tr>
<tr>
<td>GEOLOGY 312</td>
<td>Mineralogy</td>
<td>4</td>
</tr>
<tr>
<td>GEOLOGY 325</td>
<td>Sedimentology/Stratigraphy</td>
<td>4</td>
</tr>
<tr>
<td>GEOLOGY 350</td>
<td>Earth Structures and Tectonics</td>
<td>4</td>
</tr>
<tr>
<td>GEOLOGY 490</td>
<td>Geology Field Camp</td>
<td>6</td>
</tr>
<tr>
<td>GEOLOGY 499WI</td>
<td>Geology Seminar</td>
<td>3</td>
</tr>
<tr>
<td>B.S. Supporting Requisites</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 108</td>
<td>General Biology I and General Biology I Laboratory (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 108L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 211 &amp; 211L</td>
<td>General Chemistry I and Experimental General Chemistry I (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 212R &amp; CHEM 212LR</td>
<td>General Chemistry II and Experimental General Chemistry II (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td>GEOG 444 or STAT 235</td>
<td>Spatial Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Precalculus</td>
<td>5</td>
</tr>
<tr>
<td>MATH 210</td>
<td>Calculus I (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>PHYSICS 210 or PHYSICS 240</td>
<td>General Physics I (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>PHYSICS 220 or PHYSICS 250</td>
<td>General Physics II (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>Major Electives [1]</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Select four of the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANCH 318</td>
<td>From Oil Gushers to Fracking: A History of American Petroleum</td>
<td></td>
</tr>
<tr>
<td>GEOG 203</td>
<td>Introduction to Geographic Information Systems</td>
<td></td>
</tr>
<tr>
<td>GEOG 435</td>
<td>Geoarchaeology</td>
<td></td>
</tr>
<tr>
<td>GEOLOGY 313</td>
<td>Evolution and the Geologic Record</td>
<td></td>
</tr>
<tr>
<td>GEOLOGY/GEOG 314</td>
<td>Principles of Geomorphology</td>
<td></td>
</tr>
</tbody>
</table>
GEOLOGY/GEOG/ENV-SCI 321  Climate Change Impact Assessment and Policy Response
GEOLOGY 326CZ/ANCH 302  Cc:Archaeology of Ancient Disasters
GEOLOGY 342  Igneous and Metamorphic Petrology
GEOLOGY 370R  Hydrogeology
GEOLOGY 411  Mineral Deposits
GEOLOGY/GEOG/ENV-SCI 416  Understanding and Living with Volcanoes
GEOLOGY 441  Environmental Geophysics
GEOLOGY 456  Field Methods in 3D Imaging of the Environment
GEOLOGY 460  Introduction to Geochemistry
GEOLOGY 471  Tectonics
GEOLOGY 472  Earthquake Geology

Total Credits 75

1 Students must receive a grade of no lower than C- in all major required courses and major elective courses; and achieve an overall minimum GPA of 2.0 in the major.

Math and Science Requirements
The Bachelor of Science degree requires a minimum of 60 hours in math and science coursework. The number of credit hours needed to meet this minimum requirement are listed below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Additional Math/Science Coursework (Satisfied in program requirements above)</td>
<td></td>
</tr>
</tbody>
</table>

General Electives
Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>9</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0

Total Credit Hours: 120

Tools for Planning and Fulfilling Academic Requirements
UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student's officially recorded (Office of Registration and Records) and "what if" plans of study. This evaluation is used to certify all graduation requirements.

UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Minors in Geography and Geology

Academic minors are offered in geography (18 hours) and in geology (18 hours). At least nine of the hours needed for the minor must be taken at UMKC. The minor programs are sufficiently flexible to enable students with diverse backgrounds to choose relevant coursework from the department’s offerings. The programs are structured to ensure that students gain an appreciation of the breadth of the minor field. The minor should be declared as early as possible, but not later than the beginning of the student’s senior year. Up to eight hours of coursework may simultaneously count in both the major and minor areas, where applicable. This applies to departmental and non-departmental students.

Student Learning Outcomes

Students graduating from this program will:

- Understand human-environmental relationships and their spatial dimensions in various geographic areas, from local places to the entire world.
- Integrate knowledge from the humanities, social sciences, and natural sciences and apply that information to places.
- Know how to design, produce, and interpret maps using modern technology. Evidence of success is provided by performance on our exit examinations, admission to graduate schools, and ultimately the successful careers in geosciences pursued by our graduates.

Minor in Geography

A minor in geography may be obtained with a minimum of 18 semester hours of coursework in this discipline (at least nine of which must be at the 300- and 400-level).

Either ENV-SCI 110R (5 hours with lab) or GEOG 105 (3 hours) is required.

Note: GEOG 398, GEOG 417, and GEOG 499WI do not count as credit in a minor program in geography.

Student Learning Outcomes

Students graduating from this program will:

- Understand the forces and processes that build and shape the Earth.
- Be able to identify minerals and rocks and understand their formation processes.
- Understand evolution, earth history, and the role of fossils in geologic time.
- Be able to utilize techniques to describe the three-dimensional geometry of Earth layers and deformation processes.
- Collect and interpret field data, produce maps, and use them to solve geologic and environmental problems.
- Be able to critically analyze published literature and have experience with technical writing and presentations.

Minor in Geology

A minor in geology may be obtained with a minimum of 18 semester hours of coursework in this discipline (at least nine of which must be at the 300- and 400-level).

GEOLOGY 220 (5 hours with lab) and GEOLOGY 250L (3 hours) are required.

Note: GEOLOGY 398, and GEOLOGY 499WI do not count as credit in a minor program in geology.
Undergraduate Certificate Program in GIS

Student Learning Outcomes

Students graduating from this program will:

- Identify geospatial issues and technical needs in problem-solving in relation to relevant academic disciplines, industrial production, or public services.
- Design geospatial technical approaches for problem-solving.
- Analyze geospatial data and produce maps using relevant GIS software.
- Present geospatial study findings with oral presentation and written reports.

Geographic Information Systems (GIS) and related geospatial techniques are fast-growing and increasingly applied to almost all sectors of our society. Examples include environmental mapping, urban planning, and public resource management. This Missouri State-approved, transcripted undergraduate certificate program offers GIS-related multidisciplinary courses through several academic programs of the College of Arts & Sciences, such as Geosciences, Urban Planning and Design, Sociology, Economics, and Criminal Justice and Criminology. The curriculum is designed to prepare students for a variety of careers in the rapidly growing job market.

This undergraduate certificate program is open to any degree-seeking undergraduate students at UMKC with appropriate academic backgrounds.

For completion of the certificate program, the student is required to finish the coursework of 17-18 credit hours with a 3.0 GPA or higher.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 203</td>
<td>Introduction to Geographic Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 401</td>
<td>Advanced Geographic Information Science</td>
<td>4</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>9-10</td>
</tr>
<tr>
<td>ECON 411</td>
<td>Geographic Information Systems (GIS) for Urban Economic Development</td>
<td></td>
</tr>
<tr>
<td>GEOG 402</td>
<td>Environmental Remote Sensing and Digital Image Analysis</td>
<td></td>
</tr>
<tr>
<td>GEOG 404</td>
<td>Biogeography and Landscape Ecology</td>
<td></td>
</tr>
<tr>
<td>GEOG 417</td>
<td>Special Topics</td>
<td></td>
</tr>
<tr>
<td>GEOG 444</td>
<td>Spatial Data Analysis</td>
<td></td>
</tr>
<tr>
<td>GEOG 448</td>
<td>Satellite Climatology</td>
<td></td>
</tr>
<tr>
<td>GEOLOGY 456</td>
<td>Field Methods in 3D Imaging of the Environment</td>
<td></td>
</tr>
<tr>
<td>SOCIOL 434</td>
<td>Spatial Thinking in Social Science</td>
<td></td>
</tr>
<tr>
<td>UPD 300</td>
<td>Quantitative Planning Methods And Techniques</td>
<td></td>
</tr>
<tr>
<td>UPD 400</td>
<td>Advanced GIS For Urban Planning</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 17-18
Graduate Certificate Program in GIS

Student Learning Outcomes

• Students will be able to identify geospatial issues and technical needs in problem-solving in relation to relevant academic disciplines, industrial production, or public services
• Students will be able to design geospatial technical approaches for problem-solving
• Students will be able to analyze geospatial data and produce maps using relevant GIS software
• Students will be able to present geospatial study findings with oral presentation and written reports

Geographic Information Systems (GIS) and related geospatial techniques are fast-growing and increasingly applied to almost all sectors of our society. Examples include environmental mapping, urban planning, and public resource management. This Missouri State-approved, transcripted graduate certificate program offers GIS-related multidisciplinary courses through several academic programs of the College of Arts & Sciences, such as Geosciences, Urban Planning and Design, Sociology, Economics, and Criminal Justice and Criminology. The curriculum is designed to prepare students for a variety of careers in the rapidly growing job market.

This graduate certificate program is open to any students with a bachelor’s or a graduate degree and appropriate academic backgrounds, such as degree-seeking graduate students and working professionals.

For completion of the certificate program, the student is required to finish the coursework of 17-20 credit hours with a 3.0 GPA or higher.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 450</td>
<td>Gis Fundamentals for Research Applications</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 5507</td>
<td>Advanced Geographic Information Science</td>
<td>4</td>
</tr>
<tr>
<td>Electives</td>
<td>Select three of the following:</td>
<td>9-12</td>
</tr>
<tr>
<td>GEOG 5502</td>
<td>Environmental Remote Sensing and Digital Image Analysis</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 5504</td>
<td>Biogeography and Landscape Ecology</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 5544</td>
<td>Advanced Spatial Data Analysis</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 5548</td>
<td>Satellite Climatology</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 5598D</td>
<td>Special Topics in Advanced GIS and Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>CJC 5592</td>
<td>Advanced GIS For Crime Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ECON 5511</td>
<td>Geographic Information Systems (GIS) for Urban Economic Development</td>
<td>3</td>
</tr>
<tr>
<td>UPD 5740</td>
<td>Advanced GIS for Urban Planning</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 5534</td>
<td>Spatial Thinking in Social Science</td>
<td>3</td>
</tr>
</tbody>
</table>
Master of Science: Environmental and Urban Geosciences

The Department of Geosciences offers a Master of Science degree in Environmental and Urban Geosciences (M.S. EUG). This program prepares students for advanced study in natural hazards, paleoseismology, geology, geochemistry, climate variability, water resources, wetland dynamics, air and water pollution, geoarcheology, paleoenvironments, geography, urban and human systems, GIS, and environmental remote sensing. The program provides students with either a thesis or non-thesis option. All students must complete the core curriculum and additional coursework.

Admissions Requirements

For full admission to the graduate degree program in environmental and urban geosciences, the following requirements must be met:

1. Completion of an undergraduate degree with a major in a geosciences field (such as Environmental Sciences or Studies, Geography, and/or Geology) and a grade-point average of at least 3.0 (A = 4.0) overall, as well as in the major.
2. Submission of scores on the Graduate Record Examination (GRE) is not required but highly recommended. GRE scores may be used to award assistantships.
3. Two letters of recommendation from academic and/or professional references.
4. The student must declare either a thesis or non-thesis degree option in his or her application. If you are declaring a thesis option admission, you must secure a thesis advisor in the Geosciences Department before admission and declare this in your application. For assistance, contact the Graduate Advisor.
5. All application materials must be submitted to the Admissions Office by March 31 for fall semester and October 1 for spring semester for final consideration.
6. All admitted M.S. EUG students must take a mandatory assessment during “Orientation” before the first day of class each semester.

With department approval, students with non-geoscience undergraduate degrees may be provisionally admitted on a non-regular degree-seeking basis. After successfully completing recommended courses for the appropriate undergraduate geoscience degree, provisionally-admitted students may be granted degree-seeking status.

Graduate Assistantships

Teaching assistantships are awarded on a competitive basis only to incoming fully-admitted, graduate students in the thesis option degree program. Assistantship applications and all supporting materials should be submitted by March 31 for fall enrollment and October 1 for spring enrollment. International Graduate Teaching Assistants (GTA) must be certified by the School of Graduate Studies (http://sgs.umkc.edu) prior to serving in any GTA position. Interested international students should contact the School of Graduate Studies for more information.

Student Learning Outcomes

Students graduating from this program will:

• be able to conduct an independent geospatial research project.
• be able to analyze and interpret environmental data.
• review ethics in research and career goals, conduct literature searches, and critically evaluate scholarly information.
• assess and defend research findings through oral and written communication.

Core Curriculum

Hours (Total 11 Credit Hours)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 5507</td>
<td>Advanced Geographic Information Science</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 5544</td>
<td>Advanced Spatial Data Analysis</td>
<td>4</td>
</tr>
<tr>
<td>GEOG/GEOLGY 5597</td>
<td>Graduate Seminar in Geosciences</td>
<td>3</td>
</tr>
</tbody>
</table>

Thesis Option Program

An additional 19 credit hours of graduate-level geosciences courses must be taken, of which 3-6 credit hours must be GEOG 5599 or GEOLOGY 5599. These courses will be selected in consultation with your thesis advisor.

Non-Thesis Option Program

An additional 19 credit hours of graduate-level geosciences courses must be taken. Please choose from the following courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENV-SCI 5550</td>
<td>Ecotoxicology</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 5502</td>
<td>Environmental Remote Sensing and Digital Image Analysis</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 5504</td>
<td>Biogeography and Landscape Ecology</td>
<td>3</td>
</tr>
</tbody>
</table>
Master of Science: Environmental and Urban Geosciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 5506</td>
<td>Global Environmental Change</td>
<td>3</td>
</tr>
<tr>
<td>GEOG/GEOLOGY 5508</td>
<td>Archaeological Field Survey Methods</td>
<td>3</td>
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<tr>
<td>GEOG 5509</td>
<td>Urban Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 5526</td>
<td>Paleoeecology: Microfossils and Climate Change</td>
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<tr>
<td>GEOG 5535</td>
<td>Geoarchaeology</td>
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<tr>
<td>GEOG 5542</td>
<td>Quaternary Environments</td>
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</tr>
<tr>
<td>GEOG 5546</td>
<td>Global Water and Sustainability</td>
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</tr>
<tr>
<td>GEOG 5548</td>
<td>Satellite Climatology</td>
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<tr>
<td>GEOLOGY 5507</td>
<td>Archaeological Resources Management</td>
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<td>GEOLOGY 5509</td>
<td>Field Study in Archaeology</td>
<td>1-5</td>
</tr>
<tr>
<td>GEOLOGY 5513</td>
<td>Advanced Mineral Deposits</td>
<td>3</td>
</tr>
<tr>
<td>GEOLOGY 5521</td>
<td>Advanced Methods for Earth and Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>GEOLOGY 5531</td>
<td>X-Ray Diffraction and Fluorescence Methods: X-Ray Mthds Geol/Anly</td>
<td>2</td>
</tr>
<tr>
<td>GEOLOGY 5534</td>
<td>Hazardous Waste Operation Management</td>
<td>2</td>
</tr>
<tr>
<td>GEOLOGY 5535</td>
<td>Aqueous Geochemistry</td>
<td>3</td>
</tr>
<tr>
<td>GEOLOGY 5536</td>
<td>Introduction to Scanning Electron Microscopy Methods</td>
<td>2</td>
</tr>
<tr>
<td>GEOLOGY 5541</td>
<td>Environmental Geophysics</td>
<td>3</td>
</tr>
<tr>
<td>GEOLOGY 5551</td>
<td>Geotechnics</td>
<td>4</td>
</tr>
<tr>
<td>GEOLOGY 5570</td>
<td>Advanced Hydrogeology</td>
<td>3</td>
</tr>
<tr>
<td>GEOLOGY 5571</td>
<td>Tectonics</td>
<td>3</td>
</tr>
<tr>
<td>GEOLOGY 5572</td>
<td>Earthquake Geology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Requirements for Retention**

1. For newly admitted graduate students, elimination of all undergraduate deficiencies (if any) in the undergraduate major and its supporting prerequisites is required upon or before the completion of the first 12 hours of coursework for graduate credit.
2. A 3.0 (B) average or better must be maintained in all graduate coursework. In addition, a 3.0 (B) average and a satisfactory balance of grades must be maintained in the approved program of study, or the student will be subject to either probationary status or dismissal from the program.
3. Thesis-option M.S. EUG students are required to pass a qualifying examination administered by the department during first year orientation.

**Requirements for Graduation**

1. Formal acceptance of a Program of Study, including thesis research proposal for thesis option students, is required by the department and the School of Graduate Studies upon completion of the GEOG/GEOLOGY 5597.
2. No more than 12 credit hours of the program may be 300- to 400-level courses, and at least 18 credit hours must be at the 5000-level or above.
3. A formal written thesis and final oral examination are required of thesis option M.S. EUG students. The format of the thesis must be in accordance with guidelines of the School of Graduate Studies.
4. Satisfactory compliance with all applicable requirements of the School of Graduate Studies is required, including continuous enrollment and residency. Please refer to the General Graduate Academic Regulations and Information (p. 1189) section of this catalog.
With the rapid aging of the population along with the consequences this brings to nearly every sector of our lives, it is important to prepare for the ways in which population changes will change our world. Studying gerontology can prepare students to understand and address the challenges of an aging world. UMKC offers gerontology programs at both the graduate and undergraduate levels.

For more information about Gerontology and our programs, please see our website (http://aging.umkc.edu/academic-programs).

**Undergraduate**
- Minor in Gerontology (p. 385)

**Graduate**
- Graduate Certificate in Gerontology (p. 384)
Graduate Certificate in Gerontology

A graduate Gerontology certificate can be a way to begin to explore a new career or it can bring added value to an existing career. This eighteen-credit program can be taken either as a free-standing certificate or integrated with a graduate degree program at UMKC, such as the Master of Arts in Liberal Studies (p. 434). Students from such diverse fields as social work, counseling, nursing, psychology, pharmacy, dental hygiene, sociology, law, architecture, and education have completed the certificate. Students should contact the Program Director to discuss enrollment and a plan of study.

Student Learning Outcomes

Students graduating from this program will:

- Utilize gerontological frameworks to examine human development and aging.
- Relate biological theory and science to understanding senescence, longevity, and variation in aging.
- Relate psychological theory and science to understanding adaptation, stability, and change in aging.
- Relate social theory and science to understanding heterogeneity, inequality, and context as they relate to aging.
- Distinguish factors related to aging outcomes, both intrinsic and contextual, through critical thinking and empirical research.
- Adhere to ethical principles to guide work with and on behalf of older persons.
- Engage, through communication with older persons, their families, and the community in personal and public issues in aging.
- Engage collaboratively with others to promote integrated approaches to aging.

Curriculum

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interdisciplinary Core</td>
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</tr>
<tr>
<td>A&amp;S 5500</td>
<td>Interdisciplinary Colloquium On Aging</td>
<td>3</td>
</tr>
<tr>
<td>Sociology Core</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCIOL 5550</td>
<td>Sociology Of Aging</td>
<td>3</td>
</tr>
<tr>
<td>Psychology Core</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSYCH 5543</td>
<td>Adult Development And Aging</td>
<td>3</td>
</tr>
<tr>
<td>Health/Biology Core</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A&amp;S 5515</td>
<td>The Aging Body: Causes and Consequences</td>
<td>3</td>
</tr>
<tr>
<td>Field Practicum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A&amp;S 5592</td>
<td>Field Practicum In Aging ^1</td>
<td>3</td>
</tr>
<tr>
<td>Elective(s)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

^1 The practicum requirement should be enrolled in after all other core requirements are completed.

^2 Students should contact the Program Director to identify appropriate course(s).
Minor in Gerontology

Undergraduate students in any major in the College of Arts and Sciences may seek an interdisciplinary minor in gerontology designed to increase awareness of issues of our aging population. The minor will augment a variety of career paths, including service provision, administration, psychology, the health professions, and education or research. Students should contact the Program Director to discuss the required 18-credit plan of study. The minor may also be integrated with the Bachelor of Health Sciences or the Bachelor of Liberal Arts degree.

Student Learning Outcomes

Students graduating from this program will:

- Students will be able to describe what is known about biological, psychological, and sociocultural factors involved in adult development and aging processes.
- Students will be able to describe physical, cognitive, and social role changes associated with aging and major theories associated with each.
- Students will be able to explain and analyze variations in aging due to such factors as gender, social class, race/ethnicity, LGBT status, and mental health status.
- Students will demonstrate an understanding of attitudes and stereotypes regarding aging, their sources, and potential for change (both in themselves and others).
- Students will be able to apply knowledge from their aging courses to a practice setting.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sociol Core</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCIOL 410R</td>
<td>Aging In Contemporary Society</td>
<td>3</td>
</tr>
<tr>
<td>Psychology Core</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSYCH 441</td>
<td>Adult Development and Aging</td>
<td>3</td>
</tr>
<tr>
<td>Health/Biology Core</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A&amp;S 415</td>
<td>The Aging Body: Causes and Consequences</td>
<td>3</td>
</tr>
<tr>
<td>Field Practicum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A&amp;S 492</td>
<td>Field Practicum In Aging 1</td>
<td>3</td>
</tr>
<tr>
<td>Elective Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electives 2</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

1 The practicum requirement should be enrolled in after all other core requirements are completed.
2 Six elective credit hours can be taken to complete the program. Students should contact the gerontology program director to identify appropriate electives.
Healing and Humanities

Scofield Hall (http://www.umkc.edu/virtualtour/scofield-hall.asp), Room 9
711 E. 51st Street

Faculty Coordinator/Program Advisor:
Cassandra Shaffer Johnson, Coordinator of Pre-Health Programs, (816) 235-6085, shafferjohnsonc@umkc.edu

The interdisciplinary minor in healing and humanities enables students to explore the complicated nature of health care issues by integrating knowledge from the arts and humanities with the social and natural sciences. The minor is particularly appropriate for students considering health-related professions, complementing other scientific, clinical and professional preparation. Health care careers are projected to be among the fastest-growing fields in the 21st century. America’s changing health care environment increasingly calls for individuals who understand the complexity of factors affecting healing and who are able to take a humane, holistic approach.

Undergraduate
Minor in Healing and Humanities

Student Learning Outcomes

Students graduating from this program will:

• Analyze the complexity of factors affecting healing
• Explain an understanding of holistic and biopsychosocial dimensions of patient care
• Develop an interdisciplinary foundation for future careers in the world of health care

The healing and humanities curriculum enables pre-health and health professional students to develop an interdisciplinary foundation for a future health care career.

Requirements

To earn a minor in healing and humanities:

• Students must earn at least 18 credit hours from the list of approved courses below and other courses as approved by the program advisor
• Three core courses are required for all students seeking the minor:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHILOS 221</td>
<td>Contemporary Moral Issues</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 211</td>
<td>Social And Psychological Development Through The Life Cycle</td>
<td>3</td>
</tr>
<tr>
<td>or NURSE 252</td>
<td>Human Growth and Development</td>
<td></td>
</tr>
<tr>
<td>COMM-ST 431</td>
<td>Colloquium In Interpersonal Dynamics</td>
<td>3</td>
</tr>
</tbody>
</table>
• At least nine credit hours must be upper-division (i.e., 300-499)
• At least nine hours must be earned at UMKC

Students may select from among a wide variety of courses offered by many participating departments. The program advisor is available to provide academic advice on course selection and degree requirements, as well as career guidance. Students interested in the healing and humanities minor should consult with the program advisor to plan a program of study.

Approved Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Required Coursework</strong></td>
<td></td>
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</tr>
<tr>
<td>COMM-ST 431</td>
<td>Colloquium In Interpersonal Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>PHILOS 221</td>
<td>Contemporary Moral Issues</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 211</td>
<td>Social And Psychological Development Through The Life Cycle</td>
<td>3</td>
</tr>
</tbody>
</table>

<p>| <strong>Elective Coursework</strong>                          |                                                  |         |
| ANTHRO 328 | Body and Society                                |         |
| A&amp;S 365P   | Introduction To Substance Abuse Counseling: Theory And Practice |         |
| A&amp;S 492    | Field Practicum In Aging                        |         |
| BIOLOGY 319 | Global Health: New and Emerging Infectious Diseases |         |
| CHEM 206   | Human Nutrition                                 |         |
| CLASSICS 391WI | Ancient Greek and Roman Medicine              |         |</p>
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>COMM-ST 140</td>
<td>Principles Of Communication</td>
</tr>
<tr>
<td>COMM-ST 344</td>
<td>Communication In Organizational Settings</td>
</tr>
<tr>
<td>COMM-ST 377</td>
<td>Interpersonal Communication</td>
</tr>
<tr>
<td>COMM-ST 444WI</td>
<td>Intercultural Communication</td>
</tr>
<tr>
<td>HISTORY 428A</td>
<td>History Of The Body</td>
</tr>
<tr>
<td>HISTORY 428B</td>
<td>Gender &amp; Medicine: Patients &amp; Practitioners From Antiquity to Present</td>
</tr>
<tr>
<td>NURSE 230</td>
<td>Health In Aging</td>
</tr>
<tr>
<td>NURSE 252</td>
<td>Human Growth and Development</td>
</tr>
<tr>
<td>PHILOS 321</td>
<td>Ethics</td>
</tr>
<tr>
<td>PHILOS 451</td>
<td>History and Philosophy of Bioethics</td>
</tr>
<tr>
<td>PHILOS 452</td>
<td>Healthcare Law and Policy</td>
</tr>
<tr>
<td>PHILOS 453</td>
<td>Clinical Ethics and Case Consultation</td>
</tr>
<tr>
<td>PSYCH 320</td>
<td>Ethnic and Minority Perspectives in Psychology</td>
</tr>
<tr>
<td>PSYCH 328</td>
<td>Psychology Of Human Sexual Behavior</td>
</tr>
<tr>
<td>PSYCH 331</td>
<td>Introduction to Health Psychology</td>
</tr>
<tr>
<td>PSYCH 405</td>
<td>Motivation and Emotion</td>
</tr>
<tr>
<td>PSYCH 406P</td>
<td>Introduction To Developmental Disabilities</td>
</tr>
<tr>
<td>PSYCH 407P</td>
<td>Developmental Disabilities And Community Life</td>
</tr>
<tr>
<td>PSYCH 418</td>
<td>Brain and Behavior I</td>
</tr>
<tr>
<td>PSYCH 419</td>
<td>Biopsychology II (formally Biopsychology II)</td>
</tr>
<tr>
<td>PSYCH 433</td>
<td>Abnormal Psychology</td>
</tr>
<tr>
<td>PSYCH 440</td>
<td>The Psychology Of Aging</td>
</tr>
<tr>
<td>PSYCH 441</td>
<td>Adult Development and Aging</td>
</tr>
<tr>
<td>RELIG-ST 494RS</td>
<td>Death In The History Of Religions</td>
</tr>
<tr>
<td>RELIG-ST 496RS</td>
<td>The Body In The History Of Religions</td>
</tr>
<tr>
<td>SOCIOL 316</td>
<td>Sociology Of Death And Dying</td>
</tr>
<tr>
<td>SOCIOL 317</td>
<td>Policies Of Drug Use And Control</td>
</tr>
<tr>
<td>SOCIOL 328</td>
<td>Body and Society</td>
</tr>
<tr>
<td>SOCIOL 410R</td>
<td>Aging In Contemporary Society</td>
</tr>
<tr>
<td>SOCIOL 440R</td>
<td>Sociology Of Medicine</td>
</tr>
<tr>
<td>SPANISH 216</td>
<td>Spanish For The Health Sciences</td>
</tr>
<tr>
<td>WGS 201</td>
<td>Introduction To Women's, Gender, and Sexuality Studies</td>
</tr>
</tbody>
</table>

Total Credits: 18
Department of History
Cockefair Hall, Room 203
5121 Rockhill Road
(816) 235-1631
Fax: (816) 235-5723
history@umkc.edu
http://cas.umkc.edu/history

Department Chair:
Diane Mutti Burke

Professors Emeriti:
Jesse V. Clardy, James S. Falls, John T. Graham, Herman M. Hattaway, Carla L. Klausner, Stanley B. Parsons, Patrick A. Peebles, Louis W. Potts, Joseph P. Schultz

Professors:
Andrew Stuart Bergerson, Gary L. Ebersole, Miriam Forman-Brunell, John Herron, Dennis Merrill, Linda Mitchell, Diane Mutti Burke, Lynda Payne

Associate Professors:
William B. Ashworth Jr., David Freeman, Brian Frehner, Viviana Grieco, Matthew Warner Osborn, Massimiliano Vitiello

Assistant Professors:
Sandra Enríquez

Associate Teaching Professor:
Rebecca Miller Davis

Department Description
History is an essential component of a liberal arts education. As an important part of the curriculum, historical study enables students to understand the interaction of many aspects of state, society and culture, and the dynamics of human change. History offers a valuable perspective on contemporary problems as well as knowledge of the past for its own inherent interest.

Departmental offerings, at the undergraduate and graduate levels, include the major areas of historical concern such as American history and ancient, medieval, and modern European history. In recognition of the role of a university in its community, the department also offers courses in urban and social history, the history of science, Classics, Asian history, Latin American history, environmental history, religious studies, women’s, gender, and sexualities studies, girls studies, African American history, Latinx history, as well as public history. The department is also vitally involved in interdisciplinary courses and programs.

Desirable Preparation for Undergraduate Admission
Students wishing to major in history should acquire as broad a background as possible in subjects related to their historical interests. Both secondary school and community college courses in history should be supplemented with courses in other social sciences and the humanities. Students interested in the history of science should emphasize studies in physical and biological sciences.

The discipline is broad in scope and methods. Faculty members believe a logical and systematic selection of courses in other disciplines will complement the study of history. They encourage prospective majors to consult with them in preparing an integrated course of study.

Career Implications of the Bachelor's Degree
The bachelor of arts degree in history provides students with general preparation for a wide range of occupations. Most majors follow business and professional careers and receive benefits both personally and professionally from the development of analytical skills and examination of relevant subject matter in history courses. A common misconception is that the only thing available after graduation is to teach history. That is a possible path, but certainly not your only option.

Among the many jobs you can consider are: advertising, analyst, archivist, broadcaster, campaign worker, consultant, congressional aide, editor, foreign service, foundation staffer, information specialist, intelligence, journalist, legal assistant, lobbyist, museum curator, nonprofit leader, personnel manager, public relations... the list is almost endless. It sounds cliché, but the career path for a history majors is limited only by your imagination.

More specifically, with your degree in history you can work as an educator (primary, secondary or post-secondary schools, historic sites and museums); as a researcher (museums, think tanks, cultural resources management, preservation); as a communicator (writers, archivists, librarians); as an advocate (lawyers, legislative staff, foundations); and in business (contract historians, nonprofits, corporation staff).

Why so many opportunities? Consider this: the study of history trains us how to think—not in a small or proscribed way, but in an analytical way. In our courses, you will discover that a flexible and perceptive mind is the most practical tool imaginable. You will become excellent writers and
communicators with the ability to analyze complex problems with dexterity and finesse, a skill that will help you regardless of your chosen career path. Beyond this—and this remains a much less practical concern—as we hope you discover, history is more than names and dates. At best, the study of history can be a cure for ignorance, prejudice, and provincialism. And at the very least, it is an interesting story about who we are as a community, a nation, and a people.

If your interests remain in the academic world, know that our students have gone on to many top-flight colleges and universities. Recent UMKC history majors have pursued graduate study at the state universities of Virginia, Texas, Connecticut, Iowa, New York, Mississippi, Nebraska, Kansas, Colorado, Kentucky, Florida, Michigan, and California-Berkeley, as well as Yale University, Brown University, Columbia University, Emory University, Georgetown University, Northwestern University, London School of Economics, Ohio State, Southern Methodist, Marquette, Norte Dame, University of British Columbia, Texas Tech, Queen’s College-Belfast, King’s College-London, and Cambridge University.

Individuals seeking careers as teachers and professional historians may pursue advanced degrees on this campus. The department offers the Master of Arts degree and participates in the Interdisciplinary Ph.D. program. Students interested in graduate studies should contact the principal graduate advisor, Miriam Forman-Brunell, forman-brunellm@umkc.edu, or Massimiliano Vitiello, vitiellom@umkc.edu; or for the Interdisciplinary Ph.D. program, contact Lynda Payne, paynel@umkc.edu, or Matthew Osborn, osbornmw@umkc.edu.

**Departmental Activities**

**Advising**
Advising is key to a meaningful and profitable course of study in the department. Students should consult their principal advisor regarding selection of courses and for help in academic matters. Undergraduate students may select a faculty advisor, or an advisor can be appointed by the principal undergraduate advisor. Faculty office hours and prospective schedules of courses are posted in the department office, located in 203 Cockefair Hall and on the department website at http://cas.umkc.edu/history. The department offers printed guides to the requirements for its degrees.

**Principal Undergraduate Advisors**
David Freeman, freemandf@umkc.edu; Rebecca Davis, davisrebe@umkc.edu; and Dennis Merrill, merrilld@umkc.edu

**Principal Masters Advisors**
Massimiliano Vitiello, vitiellom@umkc.edu; and Miriam Forman-Brunell, forman-brunellm@umkc.edu

**Interdisciplinary Ph.D. Program Advisors**
Lynda Payne, paynel@umkc.edu; and Matthew Osborn, osbornmw@umkc.edu

**Special Programs**

**Teaching Certification in Social Studies**
Certification as a middle school (grades 5-9) or secondary (grades 9-12) social studies teacher in either Kansas or Missouri requires that a student complete specific requirements in history, political science, economics, geography, behavioral sciences and the School of Education. A separate application for teacher education is required. For further information about the program, consult the School of Education (p. 1018) section of this catalog or contact the Education Student Services Office at (816) 235-2234.

**Public History**
Courses offered by the department prepare graduates for a variety of careers in historical agencies or in the study and preservation of cultural artifacts. For further information, consult Sandra Enríquez, enriquezs@umkc.edu.

**The History Club**
Founded in 1999, with the purpose of promoting the study of history, the History Club is open to all UMKC students, history majors and non-majors. The club sponsor is Dennis Merrill, merrilld@umkc.edu.

**The History Graduate Student Association**
Students participating in the Master’s and Interdisciplinary Ph.D. program are automatically members of the History Graduate Student Association (HGSA). Each year the HGSA sponsors two events: the Graduate Student Orientation and the Graduate Student Conference. The faculty advisor is Dennis Merrill, merrilld@umkc.edu.

**Faculty**

William B. Ashworth, Jr. Associate Professor of History; B.A. (Wesleyan University); Ph.D. (University of Wisconsin).

Andrew Bergerson2,3 Professor of History; B.A. (Cornell University); M.A. (University of Edinburgh); Ph. D. (University of Chicago).

Diane Mutti Burke2,3 Department Chair; professor of history; B.A. (Dartmouth College); M.A., Ph.D. (Emory University).

Rebecca Miller Davis2 Associate Teaching Professor of History; B.A., M.A. (James Madison University); Ph.D. (University of South Carolina).

Gary L. Ebersole2,3 Professor of History and Director of Religious Studies; B.A. (Dickinson College); M.A., Ph.D. (University of Chicago).
Sandra Enríquez\textsuperscript{2,3} Assistant Professor of History; Director of Public History emphasis; B.A., M.A. (University of Texas, El Paso); Ph.D. (University of Houston).

Miriam Forman-Brunell\textsuperscript{2,3} Professor of History; A.B., M.A. (Sarah Lawrence College); Ph.D. (Rutgers University).

David Freeman\textsuperscript{2,3} Associate Professor of History; B.A. (University of Minnesota-Duluth); M.A., Ph.D. (Emory University).

Brian Frehner\textsuperscript{2,3} Associate Professor of History; B.A. (University of California, Los Angeles); M.A. (University of Nevada, Las Vegas); Ph.D. (University of Oklahoma).

Viviana L. Greico\textsuperscript{2,3} Associate Professor of History; B.A. (Universidad de Buenos Aires); M.A., Ph.D. (Emory University).

John Herron\textsuperscript{2,3} CAS Associate Dean; Professor of History; B.A., M.A. (Montana State University), Ph.D. (University of New Mexico).

Dennis Merrill\textsuperscript{2,3} Curators' Teaching Professor of History; B.A. (Providence College); M.A., Ph.D. (University of Connecticut).

Linda Mitchell\textsuperscript{2,3} Professor of History; Martha Jane Phillips Starr/Missouri Distinguished Professor of Women's and Gender Studies; B.A. (Sarah Lawrence College); M.A., Ph.D. (Indiana University).

Matthew Osborn\textsuperscript{2,3} Associate Professor of History; B.A. (University of California Santa Cruz); M.A. and Ph.D. (University of California Davis).

Lynda Payne\textsuperscript{2,3} Professor of History; M.A. (University of Edinburgh); Ph.D. (University of California, Davis).

Massimiliano Vitiello\textsuperscript{2,3} Associate Professor of History; Royall Professor; M.A. (University of Rome); Ph.D. (University of Messina); postdoctoral license in medieval studies (Pontifical Institute of Mediaeval Studies-Toronto).

\textsuperscript{1} Associate or Adjunct Graduate Faculty
\textsuperscript{2} Members of UMKC Graduate Faculty
\textsuperscript{3} Members of UMKC Doctoral Faculty

Undergraduate

Undergraduate Degrees:
- Bachelor of Arts: History (p. 407)
- Minor in History (p. 413)

Graduate

Graduate Degrees:
- Master of Arts: History (p. 414)
- Interdisciplinary Ph.D. in History (p. 419)
- Graduate Certificate in Holocaust Studies

Courses

HISTORY 101 U.S. History to 1877 Credits: 3
This course offers a broad survey of American history up to 1877.
HISTORY 101 - MOTR HIST 101: American History I

HISTORY 102 U.S. History Since 1877 Credits: 3
This course covers American history from the end of Reconstruction to the present.
HISTORY 102 - MOTR HIST 102: American History II

\textsc{MOTR Transfer Guaranteed}
HISTORY 201 European History to 1600 Credits: 3
This course surveys the political, social and cultural history of Europe from ancient times to 1600. Beginning with a brief description of the riverine civilizations of the ancient Near East, the course then examines the political and cultural evolution of classical Greco-Roman civilization, the medieval world, the rise of the national state, and the essential characteristics of the eras of the Renaissance and Reformation.
HISTORY 201 - MOTR WCIV 101: Western Civilization I

HISTORY 202 European History since 1600 Credits: 3
This course surveys the political, economic, social, intellectual, and cultural history of Europe from about 1600 to the present. Emphasis is given to themes of continuity and change in European culture through the experience of political, scientific and industrial revolutions, conservative reactions, liberal reforms, nation building, imperialism, two world wars, fascism, communism and the Cold War.
HISTORY 202 - MOTR WCIV 102: Western Civilization II

HISTORY 206 World History To 1450 Credits: 3
This course surveys the cultural, social, economic, and political history of the world to 1450. It studies the development of civilizations in isolation as well as the origins, nature, and consequences of global forms of interaction and exchange.
HISTORY 206 - MOTR HIST 201: World History I

HISTORY 208 World History since 1450 Credits: 3
This course surveys the social, economic, political history of the world from 1450 to the present. It studies the development of civilizations in isolation as well as the origins, nature, and consequences of global forms of interaction and exchange.
HISTORY 208 - MOTR HIST 202: World History II

HISTORY 213 Researching Kansas City Credits: 3
Researching Kansas City is an interdisciplinary undergraduate research course open to honors and other high-achieving students. It will introduce students to scholarly research and analysis through the exploration of important issues of the past and present in Kansas City. 
Prerequisite: Honors Program Student.

HISTORY 215 Getting High: Alcohol & Drugs in American History Credits: 3
This class will investigate historical transformations in how American society has defined and responded to problematic drinking and drug use. The class will analyze what controversies surrounding various forms of intoxication indicate about the nature of American society and culture.
HISTORY 300B Special Studies In History Credits: 1-3
HISTORY 300BB Special Studies in History Credits: 1-3
HISTORY 300BL Special Studies In History Credits: 1-3
HISTORY 300C Special Studies Credits: 1-3
HISTORY 300D Special Studies Credits: 1-3
HISTORY 300F Special Studies Credits: 1-3
HISTORY 300G Special Studies Credits: 1-3
HISTORY 300H Special Studies Credits: 1-3
HISTORY 300J Special Studies Credits: 1-3
HISTORY 300K Special Studies History Credits: 1-3
HISTORY 300L Special Studies Credits: 1-3
HISTORY 300MC Special Studies Credits: 1-3
HISTORY 300MM Special Studies Credits: 1-3
HISTORY 300P Special Studies Credits: 1-3
HISTORY 300R Special Studies Credits: 1-3
HISTORY 300RA Special Studies Credits: 1-3
HISTORY 300RB Special Studies Credits: 1-3
HISTORY 300RH Special Studies Credits: 1-3
HISTORY 300SS Special Studies Credits: 1-3
HISTORY 300W Special Studies History Credits: 1-3
HISTORY 300WY Decade of Dissent: The 1960s Credits: 3
The social movements and conflicts that developed during the 1960s continue to define American culture. Questions of racial and gender equity, a greater willingness to challenge authority, concerns about the environment, and a new openness about issues of sexuality all developed during the sixties and remain as arenas of debate today. This course will examine the origins, contexts, and major themes of these social and cultural movements.

HISTORY 301WI Historiography and Method Credits: 3
This basic course is required of all history majors at the beginning of the junior year. Content includes: 1) what history is; 2) its value and usefulness; 3) the diversity of our fields, approaches, and methods; and 4) the techniques of preparing and writing history papers. Texts and reading are approved by the Department (i.e.: Turabian for style). Although the emphasis is general instead of particular, the instructor will be assisted by other historians representing their main special interest areas.

Prerequisites: RooWriter.

HISTORY 302 Colonial North America, 1492–1763 Credits: 3
This course examines European colonization in North America, from the voyage of Christopher Columbus to the eve of the American Revolution. Students will consider the Atlantic-world context of colonization, the environmental factors that shaped colonial development, and the complex interactions of European, African, and Indian peoples.

HISTORY 303 The American Revolution, 1763-1789 Credits: 3
This course examines the history of the American Revolution, from the explosive political crisis of the 1760s to the struggle over ratification of the Constitution. Students will consider the origins and conduct of the war, as well as the Revolution’s far-reaching political, social, and economic consequences.

HISTORY 304 America, 1783-1828: The National Experience Credits: 3
The two major threads of this course are the formation and implementation of the Constitution and the cultural adolescence of the new nation. Topics considered include the political bequest of the framers’ generation, the growing pains of territorial expansion and industrialism, the paradoxical development of regionalism and nationalism.

HISTORY 305 America, 1828-1852: The Jacksonian Period Credits: 3
An analysis of the political, social, economic, and intellectual factors in American society, 1828-1852. The period featured the presidency of Andrew Jackson, the shaping of a new democratic ideology, the culmination of manifest destiny, the quickening of the antislavery impulse, the Mexican War, the growing sectional split, and the Compromise of 1850.

HISTORY 306 America, 1850-1877: Civil War and Reconstruction Credits: 3
A survey of the political, social and economic factors leading to the dissolution of the federal union is followed by a consideration of the major features and developments of the war period. This, in turn, leads to an analysis of the major factors and relationships involved in the “reconstruction” of the federal union. The course covers the years 1850 to 1877.
HISTORY 306A History of Christianity to the Middle Ages Credits: 3
This course examines the cultural, historical and theological development of Christianity from its origins to the High Middle Ages. The main themes follow the mechanisms and conditions shaping Christianity's expansion into a major cultural, social, institutional, and intellectual force in Western Europe with a focus on patterns of crisis and reform.

HISTORY 307 America 1877-1917: Development of Industrial America Credits: 3
This course deals with the reactions of different groups of Americans to the industrialization and urbanization of the United States from 1877 to 1917, using concepts associated with modernization upon the behavior of the business community, farmers, laborers, immigrants, professionals and major ethno-cultural groupings. Other contemporary proposals for the adjustment to industrialism are explained as well as the programs which each group eventually used to adjust to modern society.

HISTORY 307A History of Christianity from the Middles Ages to Present Credits: 3
This course examines the cultural, historical and theological development of Christianity from the High Middle Ages to the present. The main themes follow the development of foundational Christian theological thought and practice into what are now mainstream Western Christian theologies, the institutional histories of Western Christianity, and the cultures of Western civilization.

HISTORY 308A America: 1914-1945: The Era Of The World Wars Credits: 3
This course examines United States social, intellectual, economic, political and diplomatic history from the beginning of World War I to the end of World War II. Special emphasis is placed on the coexistence of realism and idealism in American foreign policy, the evolution of power shifts within the American federal system, and the causes and consequences of rapid urban growth and increased industrial sophistication. Students examine the material and social texture of life during the two world wars, the so-called "roaring 20s", and the Great Depression through contemporary art forms (especially novels) and historical monographs.

HISTORY 308B Cold War, Conformity, and Dissent: America, 1945-1989 Credits: 3
This course examines United States social, cultural, intellectual, economic, political, and transformational history from the end of World War II in 1945 to the collapse of the Berlin Wall in 1989. Given our focus on the recent past, special emphasis is placed upon the importance of the historical perspective to an understanding of contemporary affairs. Major themes include: America's rise to the world power, the development of the Keynesian welfare state, the concentration of corporate wealth and power, the persistence of poverty amidst plenty, and the changing status of American women and racial and ethnic minority groups.

HISTORY 309 World War II Film and Propaganda Credits: 3
This course examines film and propaganda, including posters, political cartoons, speeches, and other media, created in prewar or wartime conditions by both the Allies and Axis powers from 1933 to 1945 as it affected World War II.

HISTORY 334 History of Technology Credits: 3
The course examines technology as it shapes and is shaped by human society. Students will consider technology as a product of historically-specific and sometimes overlapping contexts shaped by culture, economics, natural environments, and social processes.

HISTORY 348 Missouri/Kansas Border Wars Credits: 3
This course explores the history of the Civil War on the Missouri/Kansas border, where residents first shed blood over the issue slavery. An exploration of this most uncivil of wars provides insight into the ways in which societies can be fragmented by ideology and ultimately rebuilt upon different lines.

HISTORY 349 Civil War in Memory and Film Credits: 3
This course explores how the era of the Civil War and Reconstruction has been portrayed in film, literature, and art, and if the popular memory of the war accurately reflects the history. We also will discuss how the understanding of this pivotal event in American History has changed over time and how cultural artifacts often say more about the time in which they were produced than the actual history of the Civil War.

HISTORY 354R Women in Modern America Credits: 3
This course traces the part women have played in the processes of industrialization and urbanization. It looks at the general demographic, economic and social changes affecting women of all classes, as well as the role of middle-class women in the progressive, prohibition and suffrage movements. The course will also study the impact of the two world wars and the Depression upon the roles of women.

HISTORY 355BA Indians of North America to 1789 Credits: 3
The history of the native peoples of North America from their origins to the era of the American Revolution.

HISTORY 355BB Indians of North America Since 1879 Credits: 3
The history of the native people of North America (Indians and Inuit) and their interaction with the European invaders since 1789. This course is the sequel to HISTORY 355BA, Indians of North America to 1789.

HISTORY 356 Rise of the City in the U.S. Credits: 3
This course treats the background and major developments of the urbanization of the United States. Includes the American urban tradition, the scope of urbanization, colonial beginnings, urban rivalries, promotion, case studies of cities, the growth of urban services, the slum, problems of government, population trends, urban planning, and suburban growth. Consideration is also given to the methods and techniques of urban research and history of the development of this field.

HISTORY 356R Kansas City: History of a Regional Metropolis Credits: 3
This course uses Kansas City as an urban laboratory to help students better understand the dynamics of the urbanization process in America. It features lectures and discussions on such subjects as early settlement patterns, the battle for the first bridge over the Missouri River, the development of an economy based on agricultural pursuits, the City Beautiful Movement, the social fabric, the Pendergast Machine, and the impact of World War II and after. The course fits Kansas City into the larger framework of the American urban mosaic.
HISTORY 357 The American West Credits: 3
This course deals with the relationship of the American West to the social and economic development of the United States. Major emphasis is placed on the role of the trans-Mississippi West in the economic growth of the national economy. Related cultural and political events are evaluated in the terms of the many Western frontiers. Emphasis will be placed on the Turner thesis, the Indian heritage, frontier violence, and the cow town experience.

HISTORY 358 History of the American South I Credits: 3
A study of the political, intellectual, cultural, economic, and social development of the American South up to and including the Civil War. Special topics discussed will be the plantation system, slavery, abolition, secession, the Confederacy, and the interaction of the region with the nation.

HISTORY 358R Constitutional History of the United States Credits: 3
The general question covered is: how does American society govern itself? Topics include the fusion of Anglo traditions and American environment, creation of the American republic under the Constitution of 1787, the struggle for sovereignty during the Marshall-Taney era, and the Supreme Court's utilization of the 14th Amendment to adapt the Constitution to modernity.

HISTORY 361 America and the World in the Global Age: 1900 to the Present Credits: 3
Following a rapid survey of American diplomatic and transnational affairs before 1900, this course analyzes America's increasingly complex encounters with the world - by government officials and non-state actors - since that date. Attention is given to the interrelationships of domestic and international contexts, with an attempt to discover political, geographic, technological, cultural, and economic influences that have shaped this area of American development.

HISTORY 364R Nature, Culture And The Human Experience Credits: 3
This course is an introduction to various interpretations of nature with a focus on American culture and society. We will consider ideas about nature from diverse perspectives including history, literature, philosophy and religion in order to understand how human perceptions and uses shape relations with the natural world. Specific themes include such diverse topics as the aesthetic tradition, environmental thought, and environmental justice.

HISTORY 365A American Environmental History Credits: 3
This course examines the changing relationships between human beings and the natural world through time. The main argument of this course will be that American History looks very different through an environmental lens. Nature is an important category of historical analysis as well as a topic worthy of historical study itself and this course will examine themes as diverse as Native American ecology to the modern environment crusade.

HISTORY 366RR American Labor History Credits: 3
This course examines the history of work and the working class in the U.S. from 1750 to the present. We will focus on the transformation of the workplace, the rise of the union movement, the nature of cultural and political organizations, workers' relationships with other social groups, and the role played by gender, race, and ethnicity in uniting or dividing the working class.

HISTORY 368 Children and Youth in American History Credits: 3
This course which brings a gendered perspective to the history of childhood and the study of youth focuses on the changing construction of girlhood and boyhood from precontact to the present. We will examine the variety of forces that have scripted the lives of children and adolescents and explore the active role they have played in shaping their lives and American culture. We will make use of the scholarly literature on childhood and youth as well as examine such primary sources as childbearing manuals, laws, literature, cartoons, and toys as material culture.

HISTORY 369 Women and Work in Early America Credits: 3
This course examines the ways in which gender, race, region, and class have shaped the historical experiences of American women. Students will trace women's lives from pre-European contact to 1877 through an examination of a wide variety of social, cultural, economic, and political forces and factors.

HISTORY 370 Introduction to Material Culture Credits: 3
This course will consider the ways in which material culture contributes to our understanding of history. Scholars have increasingly recognized the significance of "the things they left behind," particularly as they provide insights to the lives of those who did not leave extensive written records. Students will consider all aspects of material culture, drawing largely on examples from American history: architecture, domestic utensils and furnishings, clothing, tools, and good agricultural practices. The courses will emphasize the process of handicraft technology as well as the product, and will consider the impact of modernization upon both process and product.

HISTORY 371 American History Through Film Credits: 3
This course will move through the twentieth century and highlight major themes and developments that reveal the contours of American history as depicted in film. Students will examine the ways in which filmmakers have presented history, paying particular attention to the presentation of political, cultural, and social conflicts.

HISTORY 379 Museums, Monuments, and American Life: An Introduction to Public History Credits: 3
This course will investigate the ways America commemorates, invokes, and misremembers its history—what scholars call public history. Students will learn the skills professionals use to communicate historical scholarship to wider audiences, and will grapple with the political and ethical issues that arise when we expand the discipline's stakeholders.

HISTORY 391 Archival Methods Credits: 3
This combined discussion and research course will examine the research potential of primary-source materials in the custody of archival depositories and the methodology employed to utilize effectively these resources. An analysis of archival method, specifically in the areas of arrangement, description and preservation, will be emphasized during the discussion portion of the course. Most of the course will be devoted to independent research in various collections of the Regional Archives of the Kansas City Federal Records Center. The course will meet at such places as the Federal Records Center, 2306 Bannister Road, or the Truman Library for both the discussion and research segments.
HISTORY 392A Archival Internship Credits: 1-3
Students work directly with professional archivists and other personnel at the Kansas City Federal Records Center, the Truman Library, Jackson County Historical Society, and similar facilities in the area. Emphasis will be given to areas of arrangement, description and preservation of archival materials. Each student must make individual arrangements through the department.

HISTORY 392B Public History Internship Credits: 1-3
Students work directly with public history and editorial personnel at the Kansas City Museum, the Kansas City Pitch Weekly, the Truman Library, and similar facilities in the area. Depending on the institutional affiliation, emphasis will be given to museum operations and displays, editing, fund-raising, historical research and writing. Each student must make individual arrangements through the department.

HISTORY 393 Museum Studies Credits: 3
This course is designed to acquaint students with specific careers in museums and historical agencies; to introduce students to the wide range of operating issues facing those working in the museum profession on a day-to-day basis; and to familiarize students with the organizations, reference works and resources available to develop the skills and training required for those who choose to make this their profession.

HISTORY 394 African American History Before 1877 Credits: 3
This course is a survey of the African American experience from Pre-Columbian exploration through Reconstruction. The course focuses on the trans-Atlantic slave trade, slavery in the colonies as well as resistance and abolition movements.

HISTORY 395 African American History Since 1877 Credits: 3
This course is a survey of African Americans in the United States from 1877 to the present. The course explores the post-reconstruction era, civil rights and black nationalistic movements; the concepts of racism, desegregation/integration and separation. Contemporary issues facing a multiracial and pluralistic society are also addressed.

HISTORY 398 Black Civil Rights in the 20th and 21st Centuries Credits: 3
This course examines the fight for black civil rights in the United States in the 20th and 21st centuries, focusing on the Jim Crow period, the fight to end segregation, and the enduring problem of race in the United States.

HISTORY 400 Special Studies Credits: 1-3
Courses on subjects which are not a part of the regular department offering. The courses result from one or more of the following: (1) The expressed desire of students; (2) the broadened or refocused scholarship of a member of the history faculty; (3) the temporary presence of a scholar whose specialization is not reflected in the department’s regular offerings; (4) the conclusion by the department that the course meets a community need; (5) the effort of the history faculty to provide an interdisciplinary approach to an era or topic. The course is experimental in the sense that it is a one-time offering with the potential of repetition or modification—depending upon student, faculty and community response.

HISTORY 400B Special Studies Credits: 1-3
HISTORY 400C Special Studies Credits: 1-3
HISTORY 400CC Special Studies Credits: 3
HISTORY 400CL Special Studies Credits: 1-3
HISTORY 400CW Cluster Course: Critical Issues in Women’s & Gender Studies Credits: 3
What does it mean to grow up female in America? How does being female influence the body, the mind, identity? This course is an interdisciplinary exploration of the issues that have shaped the lives of American women throughout the life cycle and across the timeline. This course examines the role that culture and society have played in shaping and defining what it means to be an American girl and woman.

Cross Listings: ENGLISH 300CW.
HISTORY 401A Religion in America Credits: 3
An in-depth examination of selected aspects of the history of religions in America from the colonial period to the present. Special emphasis will be given to methodological issues in the study of American religious history.

HISTORY 404 Women and Gender in Latin America Credits: 3
This course studies gender in Latin America from the eve of conquest by the Portuguese and Spanish in the fifteenth century to the present. It examines how ideas about gender affected the lives of Latin American men and women. This course additionally analyzes how gender and race contributed to the creation of a hierarchical social order. Finally, it discusses the exercise of authority within and outside households and its impact on private and public spaces.

HISTORY 405 Colonial Latin America (From the Encounter to the Early 19th Century) Credits: 3
This course discusses the conquest and colonization of Latin America by the Spanish and the Portuguese imperial powers from the time of the encounter to the early nineteenth century. It studies the Iberian, Indigenous and African cultures and their influence in the creation of a hierarchical imperial order. Emphasis is given to the impact of the conquest, the economics of exploitation, race, sexual and gender identities and, religious and legal domination.

HISTORY 406 Modern Latin America Credits: 3
This course studies social, political, economic and cultural trends in Latin America in the nineteenth and twentieth centuries. Discussion topics include nation building after independence with an emphasis on gender and race in the creation of national identities and new forms of social stratification; integration of national economies into the world economic system; the expansion of political participation and citizenship; immigration (national and transnational) and the tensions caused by the forces of modernization and tradition. Although the course is to provide a general background for a large and diverse region (more than 20 countries), case studies from Argentina, Mexico and Brazil will illustrate the above-mentioned themes and will provide the basis for a comparative regional perspective.

HISTORY 407 Latin American Crises and Opportunities Credits: 3
This course studies why Latin America has experienced in the 20th and 21st centuries recurrent economic and political crises – and why it is still a land of enormous opportunity. While this is primarily a history course, it undertakes a multidisciplinary examination of the region’s strengths and weaknesses by discussing theories of economic development, political and sociological models as well as the influence of crime and violence. Case studies anchored in representative countries will be used to illustrate historical trends and theories.

HISTORY 408 Gender, Health, and Development in Senegal Credits: 3
This course examines women’s economic empowerment, health education initiatives, philanthropy, and social entrepreneurship in West Africa and Senegal in particular. In the main city of Dakar we will visit indigenous and global nonprofits to study their policies and processes. The culture, both urban and rural, will be experienced in order to provide a unique perspective on the Senegalese and their culture.

Prerequisites: Junior or Senior standing - must meet requirements established by study abroad office.

HISTORY 411A Medieval Civilization I Credits: 3
This course covers the period between the decline of the Roman Empire in the West and the Investiture Controversy. Topics include the rise of Christianity and early church-state relationships; the barbarian invasions and the various Germanic kingdoms; the age of Charlemagne; monasticism and feudalism. There will also be special sessions on the civilizations of Islam and Byzantium.

HISTORY 411B Medieval Civilization II Credits: 3
Medieval Civilization II.

HISTORY 412A Medieval Women & Children Credits: 3
This course explores the roles of women in the social, economic, political and cultural environments of medieval and early modern Europe. We examine the lives of women in all areas of life, from the ordinary to the extraordinary, in urban and rural environments, from the centers of religious and political power to the margins of society. Focus will be on the world of work for urban and peasant women and on the legal and social institutions of marriage, kinship and the family. The course makes extensive use of primary sources by and about women during this period.

HISTORY 413 Renaissance Credits: 3
Beginning with a definition and exploration of the Renaissance as a period of gradual transition between the Middle Ages and the beginning of modern culture, this course concerns itself primarily with the rise and spread of Humanism; the revival of interest in antiquity; the growth of individualism; and the rise of secularism, as well as with the artistic achievements of the period.

HISTORY 414 Reformation Credits: 3
Beginning with a description and analysis of the social, intellectual and political aspects of the later Middle Ages, the course continues with an examination of those profound religious, social and political changes which mark the 16th century as the end of the Middle Ages and the beginning of the modern secular era.

HISTORY 415B 17th and 18th Century European History Credits: 3
This course is designed to present the upper-division undergraduate with a firm grasp of the major intellectual, cultural, political and economic developments of 17th and 18th century Europe. It considers the bitter Thirty Years War in Central Europe, the rise of the Netherlands, the fall of Italy and Spain, the rise of constitutional and absolutist styles of government, the scientific revolution, the colonization by European of the Pacific and Indian Ocean Basins, Enlightenment political philosophy, the Agricultural Revolution, and the French Revolution.
HISTORY 416R The French Revolution and Napoleon Credits: 3
Narrative history concentrating on the explosive and colorful events and personalities in France, but also showing the European and Western context and impact of the revolution and Napoleon. Illustrated accounts cover such "great days" as the storming of the Bastille, the fall of Robespierre, and Napoleon's Coup of 18 Brumaire, and great battles. Main periods are: the origins of the revolution (economic, social, political, intellectual); revolution and reconstruction (1789-92); through terror to Thermidor (Jacobins and sans-culottes); Napoleon's wars and reconstruction (France and Europe). Cinema, slides and martial music periodically. Discussion of major authors and interpretations.

HISTORY 417R Nations & Empires: 19th Century Europe Credits: 3
This upper-division course will survey significant trends in warfare, politics, economics, social relations and culture in 19th century Europe, paying particular attention to the rise of modern ideologies and identities, world hegemony, and the social technologies of dehumanization that foreshadowed the unprecedented inhumanities of the 20th century.

HISTORY 418R The Age of Extremes 20th Century History Credits: 3
This upper-division course traces the history of Europe in the 20th century. It will survey significant trends in warfare, politics, economics, social relations and culture, paying particular attention to the issues of modernity and post-modernity, imperialism and decolonization, dehumanization and genocide as well as the role of ordinary people in these systems of mass destruction.

HISTORY 419R Contemporary Europe: 1930-2000 Credits: 3
This upper-division course traces the history of Europe in the period of living memory. It will survey significant trends in warfare, politics, economics, social relations and culture, paying particular attention to the rise of globalization and the condition of postmodernity, decolonization and neocolonization, European unification and everyday life.

HISTORY 420CC World War I in Film: The World made Modern Credits: 3
This cluster course examines World War I and its legacy through the lenses of international history and film studies. It explores the origins and conduct of the "Great War," as it was called at the time, as well as its transforming effects on the modern international relations and the ongoing process of globalization. It also examines how the war spurred the growth of an infant motion picture industry, and how movies produced during the decades that followed helped shaping popular memories of the conflict-reflecting and shaping cultural discourses regarding the myth or reality of modern civilizational progress; the ethics of modern weaponry; the individual's placed in mass society; constructions of class, race, and gender; and the meaning of national identity in a globalizing world. The class will draw on selected history texts and an array of films and film clips.

HISTORY 425R European Criminal Justice History, 500-1900 Credits: 3
This course will survey European crime, criminal procedure, policing and punishment between 500 and 1900. Particular attention will be given to changing methods of proof (oaths, ordeals, juries); changing type of criminal activity (banditry, vagrancy, witchcraft, professional theft) and changing penal strategies (the stocks, breaking on the wheel, the workhouse, the prison, the penitentiary). English experiences are emphasized.

HISTORY 426R The Scientific Revolution, 1500-1700 Credits: 3
An analysis of the intellectual and social currents which culminated in the Scientific Revolution. After presenting the Renaissance world view, the course will examine the influence of humanism, art, religion, and the voyages of discovery on science, as a prelude to understanding the achievements of Galileo, Harvey, Newton, and the scientific societies of the 17th century.

HISTORY 427R The Darwinian Revolution, 1650-1900 Credits: 3
An inquiry into the intellectual background of Darwin's "Origin of Species." The course will examine 18th- and 19th-century attitudes toward time, species, change, race, the age of the earth, the nature of fossils, creation, and evolution, as background to understanding the achievement of Darwin and the reception of his work.

HISTORY 428A History Of The Body Credits: 3
This advanced course will explore the new field of the history of the body, with particular attention to sexuality and gender. Topics will include the history of sexualities, the body and society, body disciplines, medical practices and representations of illness, beauty and fashion, and the relationship between sexualities and nationalisms.

HISTORY 428B Gender & Medicine: Patients & Practitioners From Antiquity to Present Credits: 3
This course explores, in a selective fashion, the role of women in Western medicine both as health care providers and patients. The subject of the history of medicine is too broad to be covered comprehensively in a semester, and so we will focusing on diseases or physical conditions which were believed to be limited to women--childbirth, certain mental health conditions, reproductive health, breast cancer-- as well as the increasing marginalization of women within the profession of health care providers to those branches concerned primarily with "women's problems.

HISTORY 430A 'We Are The Dead': The Great War Experience Through its Artifacts Credits: 3
World War One was the "war to end all wars"; all previous wars were indeed eclipsed by its scale of destruction. And yet, it was a war that initiated a century of continual bloodshed and crimes against humanity. This course will explore the causes, nature and consequences of the Great War of 1914-18. It will be taught on different themes each Winter semester at the National World War One Memorial Museum at Liberty Memorial.

HISTORY 431R Medieval England, 1066 To 1485 Credits: 3
Beginning with the Norman conquest of England in 1066, this course traces the history of Medieval England through the establishment of the Tudor dynasty. Covered will be such items as the rise of the Angevin Empire, the conflict between monarch nobility, the evolution of Parliament, as well as the Anglo-French rivalry which culminated in the Hundred Years' War.

HISTORY 432R Tudor England, 1485-1603 Credits: 3
This course covers England from the accession of Henry VII, the first Tudor, to the death of Elizabeth I in 1603 Topics to be covered are: transformation of England into a modern state, the Reformation, the role of Parliament, conflicts with European powers, especially Spain, etc.
HISTORY 433R History of Britain 1603-1832 Credits: 3
This course surveys the history of Britain from the rise of the Stuart dynasty through the Industrial Revolution, with particular emphasis on the cultural aspects of political, social, economic, and military changes. Topics include: the domination of the aristocracy; the rise of the Navy; the exploration of the Pacific; the monarchy of George III; the loss of the American colonies; the wars with Napoleon; the Agricultural and early Industrial Revolutions; and the social changes they brought in both Britain and the Empire.

HISTORY 434R History of Britain 1832-Present Credits: 3
This course surveys the history of the British Isles from the industrial revolution to the present day, with a particular emphasis on the cultural aspects of political, social, economic, and military changes. Topics include Victorian society, the rise of the class system, imperialism, the domestic impact of the two world wars, the reaction to the loss of the Empire, pop culture, and contemporary issues.

HISTORY 436R Modern German History Credits: 3
This course traces the history of Central Europe from the fall of Bismarck to the reunification of Germany one century later. It will ask students to think critically about the relationship between state and society, elites and 'ordinary' Germans, in the various German-speaking regimes that existed over the course of this era: two empires, two interwar republics, two fascist dictatorships, and three post-fascist republics. All assigned readings will be in English; a background knowledge of European history is recommended.

HISTORY 437AWI Imperial Germanies, 1848-1918 Credits: 3
This course traces the history of German-speaking Central Europe from the Revolutions of 1848 to the collapse of the Hohenzollern and Habsburg empires at the end of World War One. It will ask students to think critically about the relationship between state and society and the role played by 'elite' and 'ordinary' people in shaping German history. This reading and writing-intensive course will be run as a seminar. Final grades will be based on a portfolio of assignments of which students will select what they consider to be the best examples of their work.

Prerequisites: HISTORY 202, HISTORY 208.

HISTORY 437BWI First German Republics, 1917-1935 Credits: 3
This course traces the history of the two German Republics during the inter-war years-the First Austrian Republic and the so-called Weimar Republic-from the peace movements of the First World War to the solidification of fascist dictatorships. It will ask students to think critically about the relationship between state and society and the role played by "elite" and "ordinary" people in shaping German history. This reading and writing-intensive course will be run as a seminar. Final grades will be based on a portfolio of assignment of which students will select what they consider to be the best portfolio of assignments of which students will select what they consider to be the best examples of their work.

Prerequisites: HISTORY 202, HISTORY 208, RooWriter.

HISTORY 437CWI The Third Reich, 1930-1950 Credits: 3
This course traces the history of the Third Reich--its origins, nature, and crimes against humanity--from its first electoral successes in the Great Depression to the trials of its leaders for various war crimes. At its center stand the challenging questions of the ethical and historical responsibility for the Holocaust. It will ask students to think critically about the relationship between state and society and the roles played by 'elite' and 'ordinary' people in shaping German history. This reading-and-writing-intensive course will be run as a seminar. Final grades will be based on a portfolio of assignments of which students will select what they consider to be the best examples of their work.

Prerequisites: HISTORY 202, HISTORY 208, RooWriter.

HISTORY 437DWI Cold War Germanies, 1941-1991 Credits: 3
This course traces the history of the three postwar German Republics-- the Second Austrian Republic, the German Democratic Republic, and the Federal Republic of Germany-- from the initial plans of the Allies for postwar reconstruction to the Reunification of Germany in 1991. It will ask students to think critically about relationship between state and society and the role played by 'elite' and 'ordinary' people in shaping German history. This reading-and-writing-intensive course will be run as a seminar. Final grades will be based on a portfolio of assignments of which students will select what they consider to be the best examples of their work.

Prerequisites: HISTORY 202, HISTORY 208, RooWriter.

HISTORY 437EWI Imperial Germanies, 1848-1918 Credits: 3
This course traces the history of German-speaking Central Europe from the Revolutions of 1848 to the collapse of the Hohenzollern and Habsburg empires at the end of World War One. It will ask students to think critically about the relationship between state and society and the role played by "elite" and "ordinary" people in shaping German history. This reading-and-writing-intensive course will be run as a seminar. Final grades will be based on a portfolio of assignments of which students will select what they consider to be the best examples of their work.

Prerequisites: HISTORY 202, HISTORY 208, RooWriter.

HISTORY 437FWI The Third Reich, 1930-1950 Credits: 3
This course traces the history of the Third Reich--its origins, nature, and crimes against humanity--from its first electoral successes in the Great Depression to the trials of its leaders for various war crimes. At its center stand the challenging questions of the ethical and historical responsibility for the Holocaust. It will ask students to think critically about the relationship between state and society and the roles played by 'elite' and 'ordinary' people in shaping German history. This reading-and-writing-intensive course will be run as a seminar. Final grades will be based on a portfolio of assignments of which students will select what they consider to be the best examples of their work.

Prerequisites: HISTORY 202, HISTORY 208, RooWriter.

HISTORY 437GWI Cold War Germanies, 1941-1991 Credits: 3
This course traces the history of the three postwar German Republics-- the Second Austrian Republic, the German Democratic Republic, and the Federal Republic of Germany-- from the initial plans of the Allies for postwar reconstruction to the Reunification of Germany in 1991. It will ask students to think critically about relationship between state and society and the role played by 'elite' and 'ordinary' people in shaping German history. This reading-and-writing-intensive course will be run as a seminar. Final grades will be based on a portfolio of assignments of which students will select what they consider to be the best examples of their work.

Prerequisites: HISTORY 202, HISTORY 208, RooWriter.

HISTORY 444R Islam and the Arabs: The Formative Period Credits: 3
The first semester of a three-semester sequence begins with a brief overview of the geography and topography of the Middle East. The course proceeds with a discussion of the conditions of pre-Islamic Arabia; the appearance of Muhammad and his mission; the rise and spread of Islam; the establishment and consolidation of the Arab dynasties in the Middle East, North Africa and Spain; Islamic institutions; and Islamic society and culture. The time span will be approximately 500 A.D. to the Mongol conquest of Baghdad in 1258.

Cross Listings: HISTORY 5544.

HISTORY 445 The Ottoman Empire in the Middle East to World War I Credits: 3
The second semester of a three-semester sequence covers the transition from Arab to Turkish hegemony in most of the Middle East as well as the restoration of native Persian dynasties in Iran and their subsequent development. The emphasis is on the rise and decline of the Ottoman Turkish Empire. Attention is given to the Ottoman provinces and to the national movements of subject peoples. The course ends with an overview of World War I and the peace treaties which marked the dissolution of the Ottoman Empire.
HISTORY 446R The Middle East from World War I to the Present Credits: 3
The third semester of a three-semester sequence deals with the emergence of the modern countries of the Middle East after World War I and their history and course of development to the present day. There will be a general survey of the government and politics, economic situation, and social and cultural characteristics of each important country in the area. In addition, special topics will be discussed such as the modernization process, ideological alternatives, relations with the great powers, the economics and politics of oil, and the Arab-Israeli conflict.

HISTORY 462J Japanese Civilization Credits: 3
A survey of Japanese civilization and cultural history from the prehistorical period to the present. Emphasis on the interplay between religion, the arts, politics, and social structure.

HISTORY 464 Medieval Methods and Paleography Credits: 3
This course examines the methodology and historiography of Medieval Studies. Through an introduction to paleography, the study of medieval handwritings, it prepares students for advanced work in Medieval and Renaissance studies. Using an interdisciplinary approach, this course will examine the historical and cultural settings for medieval texts, their physical form and production, as well as the tradition of textual transmission in the medieval world. In addition to gaining familiarity with the many different types of primary sources, such as literary, artistic, legal, and notarial sources, students will be exposed to methods for practical archival work in various European nations.

Prerequisites: LATIN 110.

HISTORY 468R Archaeology and the History of Antiquity Credits: 3
This course will analyze the contributions of archaeology to the understanding of ancient history. It will cover archaeological excavations and their pertinence to classical civilization in the Near East and Greece. The techniques and methodology of field archaeologists will be discussed and demonstrated. Archaeological excavations relating to the Hittite capital, to the Ugaritic tablets, to the Minoan-Mycenaean civilization and its link to the Near East will be treated.

HISTORY 469 Archeology and Biblical History Credits: 3
An examination of ancient Israel as she emerges from the ruins of the past, both lapidary and literary. Through a study of the "mute documents," artifacts man-made (storied cities, household utensils, inscribed shards from Jericho to Jerusalem) we gain an insight indispensable for Biblical studies, for ancient Near Eastern history.

HISTORY 470 Ancient Egypt Credits: 3
This course describes the political, social and cultural evolution of ancient Egypt from pre-dynastic times, with major emphasis upon the Old, Middle, and New Kingdoms (especially the 18th dynasty and the reign of Akhenaton).

HISTORY 470P Ancient World: The Social History Of The Ancient World Credits: 4
The optional four-credit-hour component (modified independent study) will concern the social aspects of these civilizations, i.e., their daily lives. Readings and audiovisual aids will be used to help the student who will be expected to choose one aspect of each civilization, such as women, slavery, merchants, education, medicine, etc., and write a five-page paper about that topic for each period, i.e., Mesopotamia, Egypt, Greece and Rome.

HISTORY 471 Ancient Greece Credits: 3
This course begins with a survey of the pre-classical Minoan and Mycenaean civilizations and then describes the rise of prominent Greek city-states (with particular emphasis upon the evolution of Sparta and the political, social and cultural contributions of Athens). The course concludes with the rise of Macedon and Alexander's conquests and significance.

HISTORY 471P Ancient World: The Political Structure Of The Ancient World Credits: 4
The four-hour lecture period on weeknights will emphasize the historical aspects of the ancient civilizations. The lectures will be chronologically organized to focus upon their evolution from their rise to their collapse.

HISTORY 472 Ancient Rome Credits: 3
This course covers Roman history from its origins (including the Etruscans) to the decline of the imperial system. Particular emphasis is placed upon the political, social and economic developments in the Republic, the death of the Republic, the early Principate, and the factors that led to Rome's decline in the ancient world.

HISTORY 472P Ancient World: The Cul/Intellectual Dimension Of Ancient Civi Credits: 4
The four weekend periods will provide the students with a general picture of these civilizations: society, religion, economics, and culture (w.f., arts, literature, philosophy, science, etc.). Guest lecturers, slides, films and video cassettes will be used to introduce the varied aspects of these ancient peoples.

HISTORY 474 Late Antiquity: The transformation of the Mediterranean World (200–600 AD) Credits: 3
The decline of the Roman Empire and the barbarian invasions transformed the Mediterranean and European worlds, forming the foundation of Europe and the Islamic world. Students will investigate the multicultural society of Late Antiquity and become familiar with the primary sources for the period.

HISTORY 475WI The History of Ancient Israel Credits: 3
Judaism has had a tremendous impact on our civilization and yet most Americans are only dimly aware of its origins and development. This course will trace the roots of the Jewish religion in its historical context from its beginnings through the formation of rabbinic culture. The rise of Christianity will be examined in its original Judaic context, and recent discoveries, particularly those pertaining to the Dead Sea Scrolls, will be interpreted.

Prerequisites: RooWriter.
HISTORY 476 Medieval Jewish History Credits: 3
This course covers the general period from the decline of the Roman Empire to the dawn of early modern times. It is concerned with Jewish centers of life and learning in the Diaspora, both East and West. The course considers the Jews under Islamic rule from the time of Mohammed through the Golden Age of Moorish Spain. The focus then shifts to the situation of the Jews in Christian Europe, from the period of Constantine to the expulsions from England, France and Christian Spain. The Jews in the Ottoman Empire are mentioned and the course ends with the episode of Sabbatai Zevi, the false Messiah.

HISTORY 477 Modern Jewish History Credits: 3
This course surveys modern Jewish history from the Napoleonic period to World War II. Analyzing the social status of the Jews in Medieval Europe, it proceeds towards a discussion of the growth of the national state and the breakup of the Holy Roman Empire and analyzes the growth of socialism, integral nationalism, and liberalism as they affected the Jewish communities in Europe and America. The course serves as a survey of modern political and economic trends as they affect a distinct group.

HISTORY 494 #Heartlandia: Digital Histories of the Midwest Credits: 3
What is the Midwest? The course will consider the political, economic, and religious history of mid-America in order to define the Midwest. Students will collaboratively contribute to an ongoing digital history project like a podcast or virtual exhibit, gaining an understanding of the region as well as new technical skills.

HISTORY 496 Historical Research Project Credits: 1-3
Working extensively with an individual faculty member actively engaged in his/her research, students practice the multiple facets of investigating the sources of history, developing a comprehensive analysis from such sources, and composing a persuasive interpretation.
Prerequisites: HISTORY 301WI.

HISTORY 497 Special Topics and Readings Credits: 1-6
Intensive reading and/or research in an area selected by the student in consultation with the instructor. May be repeated for credit when the topic varies.

HISTORY 497XCA Special Topics and Readings Credits: 1-6
Special Topics and Readings

HISTORY 498WI Senior Capstone Credits: 3
This is the capstone course in the department and is required for majors in the senior year. It consists of tutorial sessions with a regular faculty member and independent research leading to a major paper using original source materials. Performance in this course will weigh heavily in the award of departmental honors.
Prerequisites: HISTORY 301WI, RooWriter.

HISTORY 5500B Special Topics In History For Graduate Studies Credits: 1-3
HISTORY 5500BB Special Topics in History for Graduate Students Credits: 3
HISTORY 5500C Special Topics In History For Graduate Studies Credits: 3
HISTORY 5500CL Cluster Course: Nordic Culture Credits: 3
HISTORY 5500CP Special Topics In History For Graduate Studies Credits: 1-3
HISTORY 5500CZ Special Studies History Credits: 1-3
HISTORY 5500D Special Topics in History For Graduate Studies Credits: 1-3
HISTORY 5500E Special Topics In History For Graduate Studies Credits: 3
HISTORY 5500G Special Topics in History for Graduate Students Credits: 3
HISTORY 5500GB Special Topics in History for Graduate Students Credits: 3
HISTORY 5500GR Special Topics in History For Graduate Studies Credits: 1-3
HISTORY 5500H Special Topics In History For Graduate Studies Credits: 1-3
HISTORY 5500JCA Special Topics in History for Graduate Students Credits: 3
HISTORY 5500LA Special Topics in History for Graduate Students Credits: 3
HISTORY 5500P Special Topics In History For Graduate Studies Credits: 1-3
HISTORY 5500R Special Topics in History for Graduate Studies Credits: 1-3
Cross Listings: HISTORY 400.
HISTORY 5500RC Special Topics In History For Graduate Studies Credits: 1-3
HISTORY 5500RD Special Topics In History For Graduate Studies Credits: 1-3
HISTORY 5500RJ Special Topics In History For Graduate Studies Credits: 1-3
HISTORY 5500SS Special Topics In History For Graduate Studies Credits: 1-3
HISTORY 5500W Special Topics in History for Graduate Students Credits: 3
HISTORY 5500Z Special Studies: Labor In Industrial America Credits: 3
This course examines the history of work and the working class in the U.S. from 1877 to the present. We will focus on the transformation of the workplace, the rise of the union movement, the nature of cultural and political organizations, workers’ relationships with other social groups, and the role played by gender, race, and ethnicity in uniting or dividing the working class.

HISTORY 5501A Religion in America Credits: 3
This course examines the history of religions in America from the colonial period to the present. Special emphasis will be given to methodological issues in the study of American religious history.

HISTORY 5502 America,1000-1763: The Formative Era Credits: 3
Early American history encompasses the formative era of many institutions and attitudes which still persist in present-day America. A study of how these patterns and policies emerged will enlighten us as to our current ways our society seeks to adapt to change.

HISTORY 5503 America, 1763-1783: The Revolutionary Heritage Credits: 3
The American Revolution created American history by creating a new nation. What the American Revolution was depends to a large extent upon what Americans think they are or ought to be. The goals of this course, therefore, are twofold: (1) to probe the nature, causes and consequences of the American Revolution; (2) to assess the intentions and behavior of both the Framers of the Constitution in 1763-1783 and the inheritors of modern America.

HISTORY 5504 America, 1783-1828: The National Experience Credits: 3
Cross Listings: HISTORY 304.

HISTORY 5505 America, 1828-1852: The Jacksonian Period Credits: 3
Cross Listings: HISTORY 305.

HISTORY 5506 America, 1850-1877: Civil War and Reconstruction Credits: 3
Cross Listings: HISTORY 306.

HISTORY 5506A History of Christianity to Middle Ages Credits: 3
This course examines the historical and theological development of Christianity from its origins to the High Middle Ages. The main themes follow the mechanisms and conditions shaping Christianity’s expansion into a major social, institutional, and intellectual force with a focus on pattern of crisis and reform. This course is based on the study of primary sources (both texts and objects) and modern scholarship.

HISTORY 5507 America 1877-1917: Development of Industrial America Credits: 3

HISTORY 5507A The History of Christianity from the Middle Ages to the Present Credits: 3
This course examines the historical and theological development of Christianity from the High Middle Ages to the present. The main themes follow the mechanisms and conditions shaping Christianity’s expansion into a major social, institutional and intellectual force with a focus on patterns of crisis and reform. This course is based on the study of primary sources (both texts and objects) and modern scholarship.

HISTORY 5508A America 1914-1945: The Era of the World Wars Credits: 3
Cross Listings: HISTORY 308B.

HISTORY 5508B America 1945-Present: Our Times Credits: 3
Cross Listings: HISTORY 308B.

HISTORY 5511 Medieval Civilization I Credits: 3
Medieval Civilization I

HISTORY 5512 Medieval Civilization II Credits: 3
Medieval Civilization II

HISTORY 5512A Medieval Women & Children Credits: 3
This course explores the roles of women in the social, economic, political, and cultural environments of medieval and early modern Europe. We examine the lives of women in all areas of life, from the ordinary to the extraordinary, in urban and rural environments, from the centers of religious and political power to the margins of society. Focus will be on the world of work for urban and peasant women and on the social and legal institutions of marriage, kinship, and the family. The course makes extensive use of primary source by and about women during this period.

HISTORY 5513 Renaissance Credits: 3
Cross Listings: HISTORY 413.
HISTORY 5514 Reformation Credits: 3
Cross Listings: HISTORY 414.

HISTORY 5515B 17Th And 18Th Century European History Credits: 3
This course is designed to present the upper-division undergraduate with a firm grasp of the major intellectual, cultural, political and economic development of 17th and 18th century Europe. It considers the bitter Thirty Years War in Century Europe, the rise of the Netherlands, the fall of Italy and Spain, the rise of constitutional and absolutist styles of government, the scientific revolution, the colonization by Europeans of the Pacific and Indian Ocean Basins, Enlightenment political philosophy, the Agricultural Revolution, and the French Revolution. Also offered for undergraduates as 415B. Graduate students will be held to a higher standard in terms of additional, in-depth historiographic research, writing, and discussion.

HISTORY 5516 The French Revolution and Napoleon Credits: 3
Cross Listings: HISTORY 416R.

HISTORY 5517 19th Century European History Credits: 3
This upper-division course will survey significant trends in warfare, politics, economics, social relations and culture in 19th century Europe, paying particular attention to the rise of modern ideologies and identities, world hegemony, and the social technologies of dehumanization that foreshadowed the unprecedented inhumanities of the 20th century. Graduates will be held to a higher standard in terms of additional, in-depth historiographic research, writing, and discussion.

HISTORY 5518 20th Century European History Credits: 3
This upper-division course traces the history of Europe in the 20th century. It will survey significant trends in warfare, politics, economics, social relations and culture, paying particular attention to the rise of globalization and the condition of postmodernity, imperialism and decolonization, dehumanization and genocide as well as the role of ordinary people in these systems of mass destruction. Graduate students will be held to a higher standard in terms of additional, in-depth historiographic research, writing, and discussion.

HISTORY 5519 Contemporary European History: 1950-2000 Credits: 3
This upper-division course traces the history of Europe in the period of living memory. It will survey significant trends in warfare, politics, economics, social relations and culture, paying particular attention to the rise of globalization and the condition of postmodernity, decolonization and neo-colonization, European unification and everyday life. Graduate students will be held to a higher standard in terms of additional, in-depth historiographic research, writing, and discussion.

HISTORY 5521 Oral History Credits: 3
This course focuses on the methods, theories, ethics, practices, and applications of tools in documenting and recovering the experiences of people hidden from the “traditional records.” Through lectures, readings, discussions, and fieldwork, students will learn the various steps in developing a robust oral history project. Students will go out into the community to capture the histories of communities in Kansas City.

HISTORY 5525R European Criminal Justice History, 500-1900 Credits: 3
This course will survey European crime, criminal procedure, policing and punishment between 500 and 1900. Particular attention will be given to changing methods of proof (oaths, ordeals, juries); changing type of criminal activity (banditry, vagrancy, witchcraft, professional theft) and changing penal strategies (the stocks, breaking on the wheel, the workhouse, the prison, the penitentiary). English experiences are emphasized.

HISTORY 5526 Modern Latin America Credits: 3
This course studies social, political, economic and cultural trends in Latin America in the nineteenth and twentieth centuries. Discussion topics include nation building after Independence with an emphasis on gender and race in the creation of national identities and new forms of social stratification; integration of national economies into the world economic system; the expansion of political participation and citizenship; immigration (national and transnational) and the tensions caused by the forces of modernization and tradition. Although the purpose of the course is to provide a general background for a large and diverse region (more than 20 countries), case studies from Argentina, Mexico and Brazil will illustrate the above-mentioned themes and will provide the basis for a comparative regional perspective.

HISTORY 5526R The Scientific Revolution 1500-1700 Credits: 3
Cross Listings: HISTORY 426R.

HISTORY 5527 The Darwinian Revolution, 1650-1900 Credits: 3
Cross Listings: HISTORY 427R.

HISTORY 5528A History Of The Body Credits: 3
This advanced course will explore the new field of the history of the body, with particular attention to sexuality and gender. Topics will include the history of sexualities, the body and society, body disciplines, medical practices and representations of illness, beauty, and fashion, and the relationship between sexualities and nationalisms.
HISTORY 5528B Women & Medicine: Patients & Practitioners From Antiquity-Present Credits: 3
This course explores, in a selective fashion, the role of women in Western Medicine both as health care providers and patients. The subject of the history of medicine is too broad to be covered comprehensively in a semester, and so we will focus on diseases or physical conditions which were believed to be limited to women-childbirth, certain mental health conditions, reproductive health, breast cancer-as well as the increasing marginalization of women within the profession of health care providers to those branches concerned primarily with women's problems.

HISTORY 5531 Medieval England, 1066 to 1485 Credits: 3
Cross Listings: HISTORY 431R.

HISTORY 5532 Tudor-England, 1485-1688 Credits: 3
This course covers the history of England from the accession of Henry VII in 1485 to the crowning of William and Mary in the Glorious Revolution. Its main emphasis is the Tudor dynasty 1485-1603 with special reference to the transformation of England into a modern state, Re-Reformation, the role of Parliament, etc. The course concludes with the major characteristics of the early Stuart period.

HISTORY 5533 History of Britain 1603-1832 Credits: 3
This course analyzes the rise and fall of the Stuart dynasty and the effects of civil war, rebellion, and religious turmoil on the peoples of Britain. The domination of politics and culture by the aristocracy in the eighteenth century is examined. The rise of the Navy due to constant warfare and the exploration of the Pacific are discussed. The monarchy of George III, the loss of the American colonies, and the wars with Napoleon are examined. Finally, the Agricultural and early Industrial Revolutions are considered through an analysis of the social changes they brought in Britain and the Empire.

HISTORY 5534 History of Technology Credits: 3
The course examines technology as it shapes and is shaped by human society. Students will consider technology as a product of historically-specific and sometimes overlapping contexts shaped by culture, economics, natural environments, and social processes.

HISTORY 5536 Modern German History: 1890-1990 Credits: 3
This course traces history of Central Europe from the fall of Bismarck to the reunification of Germany one century later. It will ask students to think critically about the relationship between state and society, elites and 'ordinary' Germans, in the various German-speaking regimes that existed over the course of this era: two empires, two interwar republics, two fascist dictatorships, and three post-fascist republics. All assigned readings will be in English; a background knowledge of European history is recommended.

HISTORY 5537 Nazi Germany Credits: 3
Nazi Germany

HISTORY 5544 Islam & the Arabs: The Formative Period Credits: 3
Cross Listings: HISTORY 444R.

HISTORY 5545 The Ottoman Empire in the Middle East to WWI Credits: 3
Cross Listings: HISTORY 445.

HISTORY 5546 The Middle East from World War I to the Present Credits: 3
Cross Listings: HISTORY 446R.

HISTORY 5548 Missouri/Kansas Border Wars Credits: 3
This course explores the history of the Civil War on the Missouri/Kansas border, where residents first shed blood over the issue slavery. An exploration of this most uncivil of wars provides insight into the ways in which societies can be fragmented by ideology and ultimately rebuilt upon different lines. Prerequisites: undergraduate degree.

HISTORY 5549 Civil War in Memory and Film Credits: 3
This course explores how the era of the Civil War and Reconstruction has been portrayed in film, literature, and art, and if the popular memory of the war accurately reflects the history. We also will discuss how the understanding of this pivotal event in American History has changed over time and how cultural artifacts often say more about the time in which they were produced than the actual history of the Civil War.

HISTORY 5552 Latin American History through the Movies Credits: 3
This course explores the national cinemas and film industries of various regions in Latin America. Students will analyze films both as artistic endeavors and as sociological documents that provide a window into the socio-historical context of the nation in question. This course will also examine the history of Latin American cinema from the beginnings of sound to present.

HISTORY 5554 Women in Modern America Credits: 3
Cross Listings: HISTORY 354R.

HISTORY 5556 Rise of the City in the U.S. Credits: 3
Cross Listings: HISTORY 356.

HISTORY 5556R Kansas City: History of a Regional Metropolis Credits: 3
Cross Listings: HISTORY 356R.
HISTORY 5557 The American West Credits: 3
Cross Listings: HISTORY 357.

HISTORY 5558 Black Civil Rights in the 20th and 21st Centuries Credits: 3
This course examines the fight for black civil rights in the United States in the 20th and 21st centuries, focusing on the Jim Crow period, the fight to end segregation, and the enduring problem of race in the United States.

HISTORY 5558R History of the American South Credits: 3
History of the American South

HISTORY 5559 World War II Film and Propaganda Credits: 3
This course examines film and propaganda, including posters, political cartoons, speeches, and other media, created in prewar or wartime conditions by both the Allies and Axis powers from 1933 to 1945 as it affected World War II.

HISTORY 5561R American Foreign Relations Credits: 3
Cross Listings: HISTORY 361.

HISTORY 5562J Japanese Civilization Credits: 3
A survey of Japanese civilization and cultural history from the prehistorical period to the present. Emphasis on the interplay between religion, the arts, politics, and social structure.

HISTORY 5563R Military History of the U.S. Credits: 3
Military History of the U.S.

HISTORY 5566R American Economic History Since 1865 Credits: 3
The course deals with the emergence of Industrial America since 1865. It will cover the rise to dominance of the large modern corporation, with the problem of economic and social instability and stability, with the rise of trade associations, cartels, and government regulation in an unstable economy, and with the evolution of American economic policy and national economic planning.

HISTORY 5566RR American Labor History Credits: 3
This course examines the history of work and the working class in the U.S. from 1750 to the present. We will focus on the transformation of the workplace, the rise of the union movement, the nature of cultural and political organizations, workers’ relationships with other social groups, and the role played by gender, race, and ethnicity in unifying or dividing the working class.

HISTORY 5569 Women and Work in Early America Credits: 3
This course examines the ways in which gender, race, region, and class have shaped the historical experiences of American women. Students will trace women’s lives from pre-European contact to 1877 through an examination of a wide variety of social, cultural, economic, and political forces and factors.

HISTORY 5570 Introduction to Material Culture Credits: 3
Cross Listings: HISTORY 370.

HISTORY 5570R Ancient Egypt Credits: 3
Cross Listings: HISTORY 470.

HISTORY 5571 American History Through Film Credits: 3
This course will move through the twentieth century and highlight major themes and developments that reveal the contours of American history as depicted in film. Students will examine the ways in which filmmakers have presented history, paying particular attention to the presentation of political, cultural, and social conflicts.

HISTORY 5571R Ancient Greece Credits: 3
Cross Listings: HISTORY 471.

HISTORY 5572R Ancient Rome Credits: 3
Cross Listings: HISTORY 472.

HISTORY 5574 Late Antiquity: The Transformation of the Mediterranean World (200-600 AD) Credits: 3
The decline of the Roman Empire and the barbarian invasions transformed the Mediterranean and European worlds, forming the foundation of Europe and the Islamic world. Students will investigate the multicultural society of Late Antiquity and become familiar with the primary sources for the period.

HISTORY 5575 Ancient Israel Credits: 3
Judaism has had a tremendous impact on our civilization and yet most Americans are only dimly aware of its origins and development. This course will trace the roots of the Jewish religion in its historical context from its beginning through the formation of rabbinic culture. The rise of Christianity will be examined in its original Judaic context, and recent discoveries, particularly those pertaining to the Dead Sea Scrolls, will be interpreted.

HISTORY 5575R The History of Ancient Israel Credits: 3
The History of Ancient Israel

HISTORY 5576R Medieval Jewish History Credits: 3
Cross Listings: HISTORY 476.
HISTORY 5577R Modern Jewish History Credits: 3
Cross Listings: HISTORY 477.

HISTORY 5578R The Holocaust and the State of Israel Credits: 3
The Holocaust and the State of Israel

HISTORY 5579 Public History: Theory and Method Credits: 3
This course explores the theoretical and methodological challenges that surround the public preservation and presentation of history in spaces like museums and historical societies. Students will learn the skills professionals use to communicate historical scholarship to wider audiences and will grapple with the issues around expanding history's stakeholders.

HISTORY 5580 The History Of The American South I Credits: 3
A study of the political, intellectual, cultural, economic, and social development of the American South up to and including the Civil War. Special topics discussed will e the plantation system, slavery, abolition, secession, the Confederacy and the interaction of the region with the nation.

HISTORY 5581 Research Methodologies Credits: 3
An introduction to a variety of research tools and techniques including such topics as evidence, critical method, verification, bibliography, book review, computers, statistics, and archival methods.

HISTORY 5581GR How To - History I Credits: 3
This foundational course in the doing of history will use the “great books” of historical scholarship to introduce graduate students to historical questions, methods, theories, and rhetorical strategies. The goal of the course is for the student to learn how to engage in historical criticism and formulate historical questions for themselves. This required course must be taken in the first year of graduate study in history.

HISTORY 5582 Colloquium In American History I Credits: 3
These courses are designed to acquaint the graduate student with the writings and theories of major American historians. Faculty lectures are combined with student bibliographical essays and the reading of important historical works in order to prepare the student for the final examination taken upon completion of M.A. course work. Books read in the course compose a large proportion of the departmental reading list.

HISTORY 5582GR How To - History II Credits: 3
This foundational course in the doing of history will introduce graduate students to professional obligations and research methodologies of academic historians. Pragmatic in focus, it will prepare students for all stages of research and teaching through all aspects of an historical career from graduate school to full professorship or other directions. This required course must be taken in the first year of graduate study in history and it fulfills the SGS recommendation for ethical instruction.

Prerequisites: HISTORY 5581GR.

HISTORY 5583 Colloquium In American History II Credits: 3
These courses are designed to acquaint the graduate student with the writings and theories of major American historians. Faculty lectures are combined with student bibliographical essays and the reading of important historical works in order prepare the student for the final examination taken upon completion of M.A. course work. Books read in the course compose a large proportion of the departmental reading list.

HISTORY 5583GR Medieval Methods & Paleography Credits: 3
This course examines the methodology and historiography of Medieval and Renaissance Studies. Through an introduction to paleography, the study of handwritings, it prepares students for advanced work in these fields. Using an interdisciplinary approach, this course examines the historical and cultural settings for texts, their physical form and production, as well as the tradition of textual transmission in the medieval and early modern world. In addition to gaining familiarity with many different types of primary sources, such as literary, artistic, legal, and notarial sources, students will be exposed to methods for archival work in various European nations.

HISTORY 5584R Colloquium In European History I Credits: 3
The European History Colloquium I will examine some of the crucial problems or watersheds in European history from antiquity through the Reformation. Course requirements include weekly discussions on specific topics and a research paper or project due by the end of the semester.

HISTORY 5585 Colloquium In European History II Credits: 3
The European History Colloquium II will examine some of the crucial problems or watersheds in European history from the Reformation through the 20th century. The course seeks to provide an in-depth study of specific topics and of the associated bibliography.

HISTORY 5585GR Colloquium in U.S. History Credits: 3
Students read broadly in the historiography of a particular historical problem, place, period, or specialization in U.S. History in order to master the relevant literature and hone their skills of historical criticism.

Co-requisites: HISTORY 5581GR.

HISTORY 5586GR Colloquium in World History Credits: 3
Students read broadly in the historiography of a particular historical problem, place, period, or specialization in world history in order to master the relevant literature and hone their skills of historical criticism.

Co-requisites: HISTORY 5581GR.

HISTORY 5587R Research Seminar Credits: 3
Students in this course will produce a major research paper under the direction of the instructor: a self-contained thesis chapter, an article for publication or the equivalent.
HISTORY 5587RA Research Seminar Credits: 3
HISTORY 5587RB Research Seminar Credits: 3
HISTORY 5590 History Of The American South II Credits: 3
A study of the political, intellectual, cultural, economic, and social development of the American South since the Civil War. Topics discussed will be the molding of a "New South; twentieth century internal developments and the interaction of the region with the nation.
HISTORY 5591 Archival Methods Credits: 3
HISTORY 5592 Public History Internship Credits: 1-3
HISTORY 5593 Museum Studies Credits: 3
This course is designed to acquaint students with specific careers in museums and historical agencies; to introduce students to the wide range of operating issues facing those working in the museum profession on a day-to-day basis; and to familiarize students with the organizations, reference works and resources available to develop the skills and training required for those who choose to make this their profession.
HISTORY 5594 Public History and New Media Credits: 3
This course provides students with an understanding of how new media can advance the work of cultural heritage. While contributing to an ongoing digital project, the course will consider how historians utilize digital technology to analyze primary sources as well as how museums use social media to reach broader audiences.
HISTORY 5597 Non-Thesis Research/Reading Credits: 1-6
Individual direction of student reading or research by selected, consenting faculty. This course can be taken only when faculty supervision is unavailable in colloquia or seminars.
HISTORY 5599R Thesis Credits: 1-6
A contribution to knowledge based upon extensive research and reflective of careful analysis. Before writing a thesis, the student must clear the topic and research design with the Supervisory committee.
HISTORY 5680 Doctoral Colloquium Credits: 3
This course will examine the writings and theories of major historians in a particular field of history. The authors, works and intellectual currents which form the basis of the colloquium will vary from semester to semester, depending upon the professor's expertise and design for the course.
HISTORY 5687 Doctoral Research Seminar Credits: 3
Students in this course will produce a major research paper under the direction of the instructor. This shall consist of a self-contained chapter of the dissertation or a work of publishable quality. May be repeated for credit.
HISTORY 5687RB Doctoral Research Seminar Credits: 3
Students in this course will produce a major research paper under the direction of the instructor. This shall consist of a self-contained chapter of the dissertation or a work of publishable quality. May be repeated for credit.
HISTORY 5697 Doctoral-Level Independent Reading Credits: 1-6
Individual reading under the supervision of members of the History Doctoral Faculty in preparation for the Comprehensive Examination for the Ph.D.
HISTORY 5699R Dissertation Credits: 1-15
Course credits in dissertation.
HISTORY 5899 Required Graduate Enrollment Credit: 1
HISTORY 5990 Capstone Credits: 1-6
HISTORY H497 Special Topics and Readings Credits: 1-6
Intensive reading and/or research in an area selected by the student in consultation with the instructor. May be repeated for credit when the topic varies.
Bachelor of Arts: History

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

• Knowledge of the Past: Acquire knowledge of the world’s civilizations and peoples, and their political, economic, social and cultural histories.
• Knowledge of the Past: Gain in-depth knowledge of a historical field by specializing in one of several departmental interest areas.
• Knowledge of the Past: Gain exposure to a range of historical subjects outside the concentration.
• Knowledge of the Past: Complete at least one course that examines a non-western society.
• Perspectives: Develop a historical understanding of an increasingly multicultural society and interdependent world.
• Perspectives: Understand the variety and complexity of the human experience and foster an appreciation for processes of change.
• Perspectives: Comprehend how constructions of class, race and gender dynamically shape social structures, national identities and all forms of human relationships.
• Perspectives: Realize the interlocking relationships among science, technology, the environment and society.
• Perspectives: Appreciate the value of interdisciplinary perspectives and methods.
• Analysis and Interpretation: Critically evaluate secondary, textual evidence by identifying a thesis, noting sources and methods used in argument, discerning the conclusions and determining the perspective, bias and reliability of the argument.
• Analysis and Interpretation: Think critically, and master the art of interpretive analysis based on the widest possible array of primary sources: written, material and other cultural texts.
• Research and Communication: Locate printed and online information sources to research a topic exhaustively.
• Research and Communication: Write clear, well organized, properly documented and grammatical prose.

The Department of History has developed a set of carefully crafted learning objectives. Simply put, history majors are expected to acquire specified levels of knowledge, perspectives and skills through the study of the past. The learning objectives are designed to help students succeed in their undergraduate history major, as independent, creative and self-directed learners. More important, they will help students to be successful in their pursuit of a career and to hold a lifelong appreciation for the humanities and social sciences.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Anchor I</td>
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<tr>
<td>Anchor II</td>
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<tr>
<td>Anchor III</td>
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<td>3</td>
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<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
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</table>
DISC 200  Discourse II: Culture and Diversity (Writing and Speech) 3
DISC 300  Discourse III: Civic and Community Engagement (Speech and Writing) 3

Focus A (Satisfied in program requirements below)
Focus B (Satisfied in program requirements below)
Focus C (May be satisfied by the Constitution course requirement below)
Focus Elective (Satisfied in program requirements below)

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 18

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
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<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
<td></td>
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<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
<td></td>
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<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) 1</td>
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</tr>
</tbody>
</table>

Total Credits 3

Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ALEKS Math Placement</td>
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<tr>
<td>Arts and Humanities Division of CAS 1</td>
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<tr>
<td>Science and Math Division of CAS</td>
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<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
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<td>6</td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
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<tr>
<td>Foreign Language (3rd Semester Level)</td>
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<tr>
<td>MATH 110 or MATH 116 or MATH 120</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course) 2</td>
<td>3</td>
</tr>
<tr>
<td>Laboratory Science Experience</td>
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</tr>
</tbody>
</table>

Total Credits 31
Major Requirements
The History major consists of 36 total credit hours, but no credit will be given toward the major for courses in which the grade is below C-.

Two courses, or 6 credit hours, are required in survey courses, including United States History (HISTORY 101 or HISTORY 102), European History (HISTORY 201 or HISTORY 202), or World History (HISTORY 206 or HISTORY 208). Students will select one course, or 3 credit hours, from two of these three categories (United States, European, or World) for a total of two courses, or 6 credit hours. These courses may also fulfill UMKC general education requirements.

At least four courses, or 12 credits, inside the student's interest area. The history department divides all upper division courses into four interest areas: Antiquity and Medieval; Early Modern and Modern Europe; United States; and Asia, Middle East and Latin America. All majors should select a primary interest area in order to gain an in-depth understanding of their topic. A student can also devise a thematic interest area with approval by the Undergraduate History Advisor.

Students will also take additional courses from other interest areas to enlarge the scope of their historical knowledge. At least three courses, or 9 credits, should be outside of the student’s primary interest area, and at least one non-western course, or 3 credits, should be taken covering Africa, Asia, Latin America, Middle East, and/or indigenous North Americans.

The final two courses, or 6 credits, come from HISTORY 301WI and HISTORY 498WI. These courses cannot be taken in the same semester and are not offered in the summer. NOTE: Students must complete the RooWriter before enrolling in any writing intensive courses.

Independent-study courses (HISTORY 496, HISTORY 497) and Internship classes (HISTORY 392B) may also help fulfill History electives. Enrollment in these courses is granted only by the supervising instructor.

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Two Surveys, selecting one from two different categories:</td>
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<tr>
<td>Category 1: U.S. History</td>
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<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
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<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
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<tr>
<td>Category 2: European History</td>
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<tr>
<td>HISTORY 201</td>
<td>European History to 1600 (Focus A)</td>
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<tr>
<td>HISTORY 202</td>
<td>European History since 1600 (Focus A)</td>
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<tr>
<td>Category 3: World History</td>
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<tr>
<td>HISTORY 206</td>
<td>World History To 1450 (Focus A)</td>
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<tr>
<td>HISTORY 208</td>
<td>World History since 1450 (Focus A)</td>
<td></td>
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<tr>
<td>At least four 300- or 400-level courses inside the student's interest area, chosen in consultation with department advisor (see below).</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>At least three 300- or 400-level courses outside of the student's interest area.</td>
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<td>9</td>
</tr>
<tr>
<td>At least one 300- or 400-level non-western course.</td>
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<td>3</td>
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<tr>
<td>Methods Course:</td>
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<tr>
<td>HISTORY 301WI</td>
<td>Historiography and Method</td>
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<tr>
<td>Capstone Course:</td>
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<tr>
<td>HISTORY 498WI</td>
<td>Senior Capstone</td>
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<tr>
<td>Total Credits</td>
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<td>36</td>
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</table>

Please note that no more than 6 hours from outside the department may be used as major electives.

General Electives
Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>32</td>
</tr>
</tbody>
</table>
Minimum GPA: 2.0
Total Credit Hours: 120

Interest Areas
Interest area electives may be taught on a rotation basis, please see advisor for current availability.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tr>
<td>HISTORY 306A</td>
<td>History of Christianity to the Middle Ages</td>
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<tr>
<td>HISTORY 400CL</td>
<td>Special Studies (See Advisor for Topics)</td>
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<tr>
<td>HISTORY 411A</td>
<td>Medieval Civilization I</td>
<td></td>
</tr>
<tr>
<td>HISTORY 411B</td>
<td>Medieval Civilization II</td>
<td></td>
</tr>
<tr>
<td>HISTORY 412A</td>
<td>Medieval Women &amp; Children</td>
<td></td>
</tr>
<tr>
<td>HISTORY 431R</td>
<td>Medieval England, 1066 To 1485</td>
<td></td>
</tr>
<tr>
<td>HISTORY 444R</td>
<td>Islam and the Arabs: The Formative Period</td>
<td></td>
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<tr>
<td>HISTORY 464</td>
<td>Medieval Methods and Paleography</td>
<td></td>
</tr>
<tr>
<td>HISTORY 468R</td>
<td>Archaeology and the History of Antiquity</td>
<td></td>
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<tr>
<td>HISTORY 469</td>
<td>Archeology and Biblical History</td>
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<tr>
<td>HISTORY 470</td>
<td>Ancient Egypt</td>
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<td>HISTORY 471</td>
<td>Ancient Greece</td>
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<td>HISTORY 472</td>
<td>Ancient Rome</td>
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<td>HISTORY 474</td>
<td>Late Antiquity: The transformation of the Mediterranean World (200–600 AD)</td>
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<td>HISTORY 475WI</td>
<td>The History of Ancient Israel</td>
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<td>HISTORY 476</td>
<td>Medieval Jewish History</td>
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<td>HISTORY 300D</td>
<td>Special Studies (See Advisor for Topics)</td>
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<tr>
<td>HISTORY 300RH</td>
<td>Special Studies</td>
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<td>HISTORY 400CL</td>
<td>Special Studies</td>
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<tr>
<td>HISTORY 404</td>
<td>Women and Gender in Latin America</td>
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<td>HISTORY 405</td>
<td>Colonial Latin America (From the Encounter to the Early 19th Century)</td>
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<td>HISTORY 406</td>
<td>Modern Latin America</td>
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<tr>
<td>HISTORY 444R</td>
<td>Islam and the Arabs: The Formative Period</td>
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<tr>
<td>HISTORY 445</td>
<td>The Ottoman Empire in the Middle East to World War I</td>
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<td>HISTORY 446R</td>
<td>The Middle East from World War I to the Present</td>
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<td>HISTORY 462J</td>
<td>Japanese Civilization</td>
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<td>HISTORY 300F</td>
<td>Special Studies (See Advisor for Topics)</td>
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<td>HISTORY 307A</td>
<td>History of Christianity from the Middles Ages to Present</td>
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<td>HISTORY 400C</td>
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<td>HISTORY 413</td>
<td>Renaissance</td>
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<td>HISTORY 414</td>
<td>Reformation</td>
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<td>HISTORY 415B</td>
<td>17th and 18th Century European History</td>
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<td>HISTORY 416R</td>
<td>The French Revolution and Napoleon</td>
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<td>HISTORY 417R</td>
<td>Nations &amp; Empires:19th Century Europe</td>
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<td>HISTORY 418R</td>
<td>The Age of Extremes 20th Century History</td>
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<td>HISTORY 419R</td>
<td>Contemporary Europe: 1930-2000</td>
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<td>HISTORY 425R</td>
<td>European Criminal Justice History, 500-1900</td>
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<tr>
<td>HISTORY 426R</td>
<td>The Scientific Revolution, 1500-1700</td>
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<td>HISTORY 427R</td>
<td>The Darwinian Revolution, 1650-1900</td>
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<td>HISTORY 428A</td>
<td>History Of The Body</td>
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<tr>
<td>HISTORY 430RA</td>
<td>'We Are The Dead': The Great War Experience Through its Artifacts</td>
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<td>HISTORY 432R</td>
<td>Tudor England, 1485-1603</td>
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<tr>
<td>HISTORY 433R</td>
<td>History of Britain 1603-1832</td>
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<td>HISTORY 434R</td>
<td>History of Britain 1832-Present</td>
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<td>HISTORY 436R</td>
<td>Modern German History</td>
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<td>HISTORY 437AWI</td>
<td>Imperial Germanies, 1848-1918</td>
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<td>HISTORY 437BWI</td>
<td>First German Republics, 1917-1935</td>
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<td>HISTORY 437CWI</td>
<td>The Third Reich, 1930-1950</td>
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<td>HISTORY 437DWI</td>
<td>Cold War Germanies, 1941-1991</td>
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<td>HISTORY 445</td>
<td>The Ottoman Empire in the Middle East to World War I</td>
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<td>HISTORY 446R</td>
<td>The Middle East from World War I to the Present</td>
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<td>HISTORY 477</td>
<td>Modern Jewish History</td>
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<thead>
<tr>
<th>United States</th>
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<tbody>
<tr>
<td>HISTORY 300C</td>
<td>Special Studies (See Advisor for Topics)</td>
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<tr>
<td>HISTORY 300WY</td>
<td>Decade of Dissent: The 1960s</td>
</tr>
<tr>
<td>HISTORY 302</td>
<td>Colonial North America, 1492–1763</td>
</tr>
<tr>
<td>HISTORY 303</td>
<td>The American Revolution, 1763-1789</td>
</tr>
<tr>
<td>HISTORY 304</td>
<td>America, 1783-1828: The National Experience</td>
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<tr>
<td>HISTORY 305</td>
<td>America, 1828-1852: The Jacksonian Period</td>
</tr>
<tr>
<td>HISTORY 306</td>
<td>America, 1850-1877: Civil War and Reconstruction</td>
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<tr>
<td>HISTORY 307</td>
<td>America 1877-1917: Development of Industrial America</td>
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<tr>
<td>HISTORY 308A</td>
<td>America: 1914-1945: The Era Of The World Wars</td>
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<tr>
<td>HISTORY 308B</td>
<td>Cold War, Conformity, and Dissent: America, 1945-1989</td>
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<tr>
<td>HISTORY 309</td>
<td>World War II Film and Propaganda</td>
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<td>HISTORY 334</td>
<td>History of Technology</td>
</tr>
<tr>
<td>HISTORY 343</td>
<td>Oral History</td>
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<tr>
<td>HISTORY 348</td>
<td>Missouri/Kansas Border Wars</td>
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<tr>
<td>HISTORY 349</td>
<td>Civil War in Memory and Film</td>
</tr>
<tr>
<td>HISTORY 354R</td>
<td>Women in Modern America</td>
</tr>
<tr>
<td>HISTORY 356</td>
<td>Rise of the City in the U.S.</td>
</tr>
<tr>
<td>HISTORY 356R</td>
<td>Kansas City: History of a Regional Metropolis</td>
</tr>
<tr>
<td>HISTORY 357</td>
<td>The American West</td>
</tr>
<tr>
<td>HISTORY 358</td>
<td>History of the American South I</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
</tr>
<tr>
<td>HISTORY 361</td>
<td>America and the World in the Global Age: 1900 to the Present</td>
</tr>
<tr>
<td>HISTORY 365A</td>
<td>American Environmental History</td>
</tr>
<tr>
<td>HISTORY 366RR</td>
<td>American Labor History</td>
</tr>
<tr>
<td>HISTORY 368</td>
<td>Children and Youth in American History</td>
</tr>
<tr>
<td>HISTORY 369</td>
<td>Women and Work in Early America</td>
</tr>
<tr>
<td>HISTORY 370</td>
<td>Introduction to Material Culture</td>
</tr>
<tr>
<td>HISTORY 371</td>
<td>American History Through Film</td>
</tr>
<tr>
<td>HISTORY 379</td>
<td>Museums, Monuments, and American Life: An Introduction to Public History</td>
</tr>
<tr>
<td>HISTORY 392A</td>
<td>Archival Internship</td>
</tr>
<tr>
<td>HISTORY 392B</td>
<td>Public History Internship</td>
</tr>
<tr>
<td>HISTORY 393</td>
<td>Museum Studies</td>
</tr>
<tr>
<td>HISTORY 394</td>
<td>African American History Before 1877</td>
</tr>
<tr>
<td>HISTORY 395</td>
<td>African American History Since 1877</td>
</tr>
<tr>
<td>HISTORY 398</td>
<td>Black Civil Rights in the 20th and 21st Centuries</td>
</tr>
<tr>
<td>HISTORY 400</td>
<td>Special Studies (See Advisor for Topics)</td>
</tr>
<tr>
<td>HISTORY 401A</td>
<td>Religion in America</td>
</tr>
</tbody>
</table>
UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Minor in History

Student Learning Outcomes

Students graduating from this program will:

- Knowledge of the Past: Acquire knowledge of the world’s civilizations and peoples, and their political, economic, social and cultural histories.
- Knowledge of the Past: Gain in-depth knowledge of a historical field by specializing in one of several departmental interest areas.
- Knowledge of the Past: Gain exposure to a range of historical subjects outside the interest area.
- Knowledge of the Past: Complete at least one course that examines a non-western society.
- Perspectives: Develop a historical understanding of an increasingly multicultural society and interdependent world.
- Perspectives: Understand the variety and complexity of the human experience and foster an appreciation for processes of change.
- Perspectives: Comprehend how constructions of class, race and gender dynamically shape social structures, national identities and all forms of human relationships.
- Perspectives: Realize the interlocking relationships among science, technology, the environment and society.
- Perspectives: Appreciate the value of interdisciplinary perspectives and methods.
- Analysis and Interpretation: Critically evaluate secondary, textual evidence by identifying a thesis, noting sources and methods used in argument, discerning the conclusions and determining the perspective, bias and reliability of the argument.
- Analysis and Interpretation: Think critically, and master the art of interpretive analysis based on the widest possible array of primary sources: written, material and other cultural texts.
- Research and Communication: Locate printed and online information sources to research a topic exhaustively.
- Research and Communication: Write clear, well organized, properly documented and grammatical prose.

Studying history provides students with unique opportunities to develop their intellectual passions, interests, abilities, skills (critical thinking, research, writing, and oral communication) and sensibilities—insight, empathy, and perspective.

Understanding the past provides students with a rich foundation of learning and valuable skills upon which more specialized knowledge can be built. A history background can help students build toward a range of careers—from business to government to education to the law—and facilitate the pursuit of alternative paths especially valuable in a fluid labor market.

Program Requirements

A minor in history may be earned with a minimum of 18 credit hours of coursework in the discipline (at least 12 of which must be at the 300- and 400-level). A maximum of six of the 18 credit hours may be taken in two of the survey courses. For course selection, please refer to the Bachelor of Arts in History (p. 407). A history minor also may be earned online.
Master of Arts: History

This master's program is designed for students who already have completed a non-terminal baccalaureate degree with a major in History or a related field.

In this program, students will gain a broad understanding of the field of History, while developing an in-depth knowledge of historical scholarship in their areas of interest. Students may find that they develop these interests in the process of their interaction with the department faculty.

Admissions

Applications for the M.A. degree in History are reviewed continually during the calendar year. However, students must have their applications completed by December 1 for admission for the spring semester and by July 1 for the fall term. To be considered for graduate teaching assistantships or paid internships during the following academic year, and for maximum choice in coursework for the first semester, fall candidates need to have their application submitted by February 1. There is a supplemental application for the graduate teaching assistantships and paid internships.

Please contact the History MA Advisor, to convey your interest in applying or for questions regarding the History MA program. Inquiries can also be emailed to history@umkc.edu

The History department will consider for admission as a regular Graduate Student any student whose undergraduate major was History and who had a 3.0 grade point average in History courses and a 3.0 grade point average overall. Applicants who do not hold an undergraduate degree in History, but whose baccalaureate program included substantial training in History and/or related subjects, may also be considered for regular admission.

Applying for the MA History Program

To the Office of Admissions (http://www.umkc.edu/admissions)

• Application
• Official Transcripts and Test Scores (GRE not required)

To the History Department (http://cas.umkc.edu/history)

• A statement of purpose, explaining your academic and professional goals; what sparked your interest in graduate study; relevant academic and work-related activities; elaborate on academic interest, including the faculty with whom you wish to study (typically 2 pages)
• A sample of your scholarly writing (varying according to size of paper)
• Three letters of recommendation (preferably from History professors)

It is your responsibility to confirm the receipt of all materials.

If admitted, students will be asked to sign a letter of intent to enroll.

Financial Aid

There are a limited number of graduate teaching assistantships and paid internships available. The School of Graduate Studies also administers graduate fellowships and scholarships. For all other inquiries about financial aid, contact:

Financial Aid and Scholarships Office
Administrative Center, Room 101
5115 Oak Street
(816) 235-1154 (Kansas City Metro)
1-800-775-8652 (Outside of Metro)
Fax: (816) 235-5511
finaid@umkc.edu
http://www.umkc.edu/finaid

Student Learning Outcomes

Students graduating from this program will:

• How to recognize, demonstrate, and apply appropriate knowledge of the world’s civilizations and peoples as well as their political, economic, social, and cultural histories.
• How to identify and employ primary and/or secondary sources to research a topic exhaustively.
• How to relate the events in his/her particular story to the general history of the topic; and the student relates his/her interpretation to the interpretations of other historians, or to theorists or scholars in other disciplines.
• How to use primary and secondary sources to construct an original historical interpretation, demonstrating competency in identifying a problem, posing a hypothesis, proposing a methodology, and engaging the data.
• How to critically appraise alternative readings of the past, create a coherent historical interpretation, and take a critical position in these debates.
• How to compose and present clear, well-organized, properly documented grammatical prose.

Program Options
The Department of History offers two options leading to the Master of Arts degree—the M.A. in History, requiring 30 hours, and the M.A. in History with an emphasis in Public History, requiring 36 credit hours.

Requirements
Students seeking to fulfill either program option are required to complete the minimum number of credit hours of graduate-level work which must include the following courses with a grade of 2.67 (B-) or better:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>For the MA in History</td>
<td></td>
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<tr>
<td></td>
<td>Foundational Courses:</td>
<td>6</td>
</tr>
<tr>
<td>HISTORY 5581GR</td>
<td>How To - History I</td>
<td></td>
</tr>
<tr>
<td>HISTORY 5582GR</td>
<td>How To - History II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A Minimum of Three Graduate Colloquia, typically:</td>
<td>9</td>
</tr>
<tr>
<td>HISTORY 5585GR</td>
<td>Colloquium in U.S. History</td>
<td></td>
</tr>
<tr>
<td>HISTORY 5586GR</td>
<td>Colloquium in World History</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Graduate Level Courses in Their Curriculum.</td>
<td>11</td>
</tr>
<tr>
<td>HISTORY 5587RA</td>
<td>Research Seminar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Research Seminar</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Capstone Course:</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 5599R</td>
<td>Thesis</td>
<td></td>
</tr>
<tr>
<td>HISTORY 5990</td>
<td>Capstone ((for Public History emphasis))</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td>30</td>
</tr>
</tbody>
</table>

The department encourages students to take graduate level electives in the History department at the 5500 level. With the approval of the student’s faculty advisor, however, students may take up to 6 credits at the 400 level if these fit with their overall program of study. Students may also take up to 9 credits in courses outside the department provided:
1. They are demonstrably graduate level courses.
2. They clearly relate to the student’s program of study.

Public History Emphasis in Master of Arts in History
MA History - Public History Emphasis Website (http://cas.umkc.edu/history/degree-options/graduate-programs)

Student Learning Outcomes
Students graduating from this program will:
• apply the art of public interpretation to historical scholarship by crafting a sample historical exhibit.
• critically evaluate projects of a similar nature by reviewing an existing exhibit.
• assess the job prospects of public history and museum professionals by analyzing a specific career in public history.
• critically evaluate the efficacy of digital technology for historical research through hands on workshops and digital history project reviews.

Program Requirements
<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>MA History Core Requirements</td>
<td>19</td>
</tr>
<tr>
<td>HISTORY 5579</td>
<td>Public History: Theory and Method</td>
<td></td>
</tr>
<tr>
<td>HISTORY 5592</td>
<td>Public History Internship</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Public History Electives:</td>
<td>9</td>
</tr>
<tr>
<td>HISTORY 5521</td>
<td>Oral History</td>
<td></td>
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<tr>
<td>HISTORY 5570</td>
<td>Introduction to Material Culture</td>
<td></td>
</tr>
<tr>
<td>HISTORY 5593</td>
<td>Museum Studies</td>
<td></td>
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<tr>
<td>HISTORY 5594</td>
<td>Public History and New Media</td>
<td></td>
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</tbody>
</table>
Colloquia
These courses form the knowledge base for the graduate program. Students are encouraged to take as many of these as can fit into their Program of Study. In them, students will

1. Read broadly and learn about the major trends in the historiography of a particular historical problem, place, period, or specialization.

2. Develop fundamental skills of the professional historian such as the ability to write academic book reviews, make conference-style presentations, and discuss among peers the work of other historians critically.

This course typically culminates in the production of a term paper and/or literature review on a subject of the student’s interest that could serve as the context for a future research project or comprehensive examination field.

Research Seminars
Students will produce an original work of scholarship anchored in primary sources that reflects their larger course of study. This paper will serve as the foundation of their M.A. thesis or capstone project.

Internship (for Public History emphasis)
This course provides students in the Public History emphasis with invaluable professional experience in the field. For every credit hour, they will work 40 hours at a cultural institution that aligns with their own professional goals. These can be museums, historical societies, archives, libraries, historic sites, or cultural foundations.

Graduate Thesis or Capstone Course
In this course, taken near the completion of the program of study, students will complete, and defend in an oral examination, their advisor-approved thesis or capstone project. This final project can take one of three forms: a thesis, which is defined as a journal-length professional paper, based on original research using primary sources (10,000-12,000 words) (HISTORY 5599R); a public history capstone project (HISTORY 5990); or for educators, an extensive unit plan (HISTORY 5990). See your advisor for additional guidelines about the thesis/capstone options.

Language Requirements
The M.A. in History will require demonstration of foreign language competency if the subject matter requires it. The faculty advisor will determine how this requirement should be fulfilled.

Minimum Expectations
Students must demonstrate satisfactory progress towards the completion of their degree. In all courses students must

1. Receive a grade of B- or higher in all courses taken in the program.

2. Maintain a minimum cumulative 3.0 graduate GPA.

3. Adhere rigorously and conscientiously to academic standards of honesty.

4. Demonstrate serious commitment to scholarship and intellectual engagement.

5. Satisfactory compliance with all applicable requirements of the School of Graduate Studies Abide by all requirements of the School of Graduate Studies. Please refer to the General Graduate Academic Regulations and Information (p. 1189) section of this catalog.

In terms of administrative procedures, students must punctually file the following forms, each of which must be approved by the M.A. advisor, the faculty advisor and the other members of the supervisory committee:

1. A tentative program of study, and the form listing the initial members of the Supervisory Committee made up of a chair and two additional faculty members, by the 15th of October or 15th of March before the completion of the student’s 15th credit hour.

2. A final program of study, and the form listing the final members of the supervisory committee, by the 15th of October or 15th of March before the completion of the student’s 30th credit hour.
3. The student must have identified a faculty advisor who has agreed to serve as the student’s committee chair for the student’s thesis/capstone project. Faculty advisors, like tentative programs of study, may be changed over the course of a student’s study.

Each year students are required to submit a formal report of their progress toward their degree by February 1. The narrative statement should include a description of students’ coursework, exam preparation, research activities (including progress toward the thesis/dissertation/final project, conference activities, publications, exhibits, and the status of grant applications), awards, and internships, as applicable. In addition, students should outline their goals for the coming academic year.

Students in the Public History emphasis must declare their emphasis by the completion of their 12th credit hour by forming a viable committee and completing a program of study.

Advisors and Committees
Once enrolled, students should schedule a meeting with the Masters Advisor. During this meeting, the student will be assigned a faculty mentor. The faculty mentor will:

• serve as a personal connection to the department
• assist the student in all matters professional during their study in the department
• and may continue even after the student has identified a faculty advisor (their content specific instructor).

Supervisory Committee
The supervisory committee consists of three full-time, regular members of the UMKC History Department who are also members of the graduate faculty, with the student’s faculty advisor serving as chair of this committee.

With the approval of the faculty advisor:

• One member of the committee may be a full-time, regular member of another UMKC department (this committee member must also be a member of the graduate faculty).

• A fourth member may be added to the committee from the adjunct graduate faculty or from the graduate faculty of another institution.

Students in the Public History emphasis are encouraged to have a faculty advisor who specializes in the content area related to their capstone project, as well as faculty member who specializes in public history. Public History students are also permitted to include members of the adjunct graduate history faculty on their committees who work professionally in the field of public history in the Kansas City region.

Extenuating Circumstances
Students incapable of meeting administrative deadlines may request an extension from the M.A. advisor. These requests must be made in writing in advance of the deadlines. Incompletes will be given only when there are legitimate reasons for not completing course requirements on time, and only when there are reasonable expectations that work can be completed within the time allowed by the School of Graduate Studies (maximum of one year).

Probation
Failing any of these conditions means that the student is not making satisfactory progress towards the completion of her/his degree. In that case, the student will be placed on probation and will have to petition the department, through a letter to the M.A. advisor and graduate committee, for permission to resume his or her studies the following semester. The department will then recommend a reasonable plan for remediation. If the student fails to meet the standards set by the department, the student will be declared ineligible for enrollment and dropped from the program.

Honorary Organizations
The department sponsors a chapter of the national history honorary, Phi Alpha Theta. Admission into the honorary requires a 3.2 grade-point average in a minimum of 12 credits of graduate work. The honorary sponsors programs and lectures during the school year, and members are often invited to read papers at the regional conventions. Membership in Phi Alpha Theta is noted on each honoree’s official transcript.

Students should strongly consider membership in professional organizations for historians, such as the American Historical Association (http://www.historians.org) and others.

The Annual Graduate Student Conference
The History Department hosts an annual Graduate Student Conference each December. Graduate students should plan to attend as required by the program. In it, students will

• demonstrate their expertise in a research agenda of their own creation,
• present their research to peers and faculty,
• comment constructively and critically on the research of others,
• engage critical questions in public, and
• celebrate their academic achievements that year.

**History Department Graduate Student Awards**

Each spring, the faculty will present three graduate student prizes: the Carla Klausner Award for the Best Original History Research Paper; the Louis Potts Award for the Best Original Research Paper on Midwestern History; and the Lynda Payne Award for the Best Public History Project. The Captain Harry S. Truman Prize is annually awarded to the best undergraduate or graduate student paper on a topic related to WWI.
Interdisciplinary Ph.D. in History

History is an academic discipline eligible for full participation in UMKC’s Interdisciplinary Ph.D. Program. Students interested in this study should review the School of Graduate Studies section for general and discipline-specific admission criteria, academic regulations, and degree requirements.
## Graduate Certificate in Holocaust Studies

### Program Contacts:
Website: Graduate Certificate in Holocaust Studies (http://cas.umkc.edu/holocaust/contacts.asp)

Master of Arts in Liberal Studies Program  
106 Cockefair Hall  
University of Missouri-Kansas City  
5100 Rockhill Road  
Kansas City, MO 64110

Dr. Andrew Bergerson  
Certificate Advisor at UMKC  
Department of History  
phone: 816.235.6257  
email: bergersona@umkc.edu (bergersona@umkc.edu?subject=Certificate in Holocaust Studies)

Shelly Cline  
Certificate Coordinator at Midwest Center for Holocaust Education (MCHE)  
phone: 913-327-8195  
email: shellyc@mchekc.org (shellyc@mchekc.org?subject=Certificate in Holocaust Studies)

MALS Program  
phone: 816.235.6257  
email: mals@umkc.edu (mals@umkc.edu?subject=Certificate in Holocaust Studies)

Dr. Larson Powell  
Director, Humanities Consortium  
Department of Foreign Languages & Literatures  
phone: 816-235-1316

### Student Learning Outcomes

Students graduating from this program will:

- Knowledge: Mastery of knowledge of the “big questions” of the Holocaust and genocide studies.
- Interconnectedness & Contextualization: Understanding the scope of the Holocaust and genocide studies and the relations between aspects of it.
- Research: The ability to conduct interdisciplinary research in Holocaust and genocide studies.
- Interdisciplinarity: The ability to think about the Holocaust and genocide studies across disciplinary lines.
- Analytic & Creative Synthesis: Ability to analyze and synthesize evidence about the Holocaust and genocide studies.
- Communication: The ability to communicate clearly and effectively to diverse audiences.
- Application & Relevance: The ability to apply what is learned about the Holocaust and genocide studies in diverse contemporary ethical and political contexts.

### Curriculum

- **Total Credit Hours**: 18 credit hours, at least 9 of which must be taken at UMKC.
- **Introductory course**: This required course introduces students to the “big questions” of Holocaust and genocide studies and to interdisciplinary scholarship. It will be offered each Spring semester and taught by rotating consortium faculty. Students register for this course through the home institutions of the faculty teaching that semester. It is expected that the introductory course is the first course students take in the certificate program. If their enrollment begins in a semester when the course is not offered, students may petition for an exception through their academic adviser.
- **Elective coursework**: Students must complete 12 additional credit hours from the list of approved courses at participating institutions. The courses are either classified as Core or Contract courses. A minimum of 6 credit hours of core courses must be completed. Contract courses offer students the flexibility to enroll in a course that addresses the Holocaust and genocide studies indirectly, but require an academic contract between the student and professor stipulating how the course material will meet the learning objectives of the Certificate Program. Only six credit hours of contract courses can be counted toward certificate completion. Certificate Course Contract (http://mchekc.org/admin/wp-content/uploads/2014/04/CertificateCourseContract.pdf)
- **Capstone Experience**:
  - **Capstone Course**: Students are required to complete a 3-credit capstone course in the final semester of their certificate curriculum. This capstone course may coincide with the capstone course for a degree program with a delay of some semesters as needed. Or, it may be an independent reading and research course with an approved member of an affiliated institution’s faculty.
• **Capstone Project.** The final product of this course would consist of an interdisciplinary scholarly project. Students are encouraged to develop capstone projects that demonstrate mastery of all of the six student learning objectives for the program.

• **Reflective Essay.** This requirement includes SLO6 “Application & Relevance” in which students demonstrate their ability to apply knowledge about Holocaust and genocide studies in diverse contemporary ethical and political contexts. If their project does not directly address this learning objective, then the student will be asked to complete an brief reflective essay, submitted in addition to the capstone project, in which they consider what they have learned across the curriculum about the HGS’s application and relevance. It is not required if the capstone project demonstrates mastery of SLO6.

• **Transcripts:** In order to receive credit for a course taken at a consortium institution, students are responsible for asking the registrars at the institutions where the courses were taken to send a transcript to the UMKC registrar (http://www.umkc.edu/registrar). Students must provide transcripts to the program coordinator at MCHE from all institutions at which they took courses.

• **Transferring credits:** For Certificate purposes, students may transfer only courses approved by the Consortium faculty. If students are also enrolled in a regular degree program at UMKC, courses approved for the Certificate may not be transferred in addition to courses allowed for transfer for a degree. Approval for a Certificate transfer does not guarantee approval for any degree: that decision depends on the guidelines for the relevant degree program.
Bachelor of Arts / Graduate Certificate in Holocaust Studies - Dual Degree

This program combines a Bachelor’s degree with the Graduate Certificate in Holocaust Studies. It enables students pursuing a Bachelor’s degree to apply 6 hours of credit from BA coursework at the 300 or 400 level to the Graduate Certificate. All other requirements for both the Bachelor’s degree and the Graduate Certificate, including the requirement that at least 9 hours of Certificate coursework be taken at UMKC, remain. (The full description of the Certificate can be found on the Holocaust Studies website: http://cas2.umkc.edu/holocaust/program.asp.)

Admissions Requirements:

• Status:
  enrolled and in good academic standing at UMKC
  completed 60 credits towards their undergraduate degree
  completed 30 at UMKC
• GPA: 3.0 or higher
• Demonstration of a command of the basic facts of the Holocaust. Students may do so through:
  documented evidence of a prolonged engagement in the teaching of the Holocaust;
  a grade of B or higher taken at the 300-level or higher in Holocaust coursework; OR
  a grade of A- or higher in the course Anch 214: ECHI: Nazi-Occupied Europe and the Holocaust

Since the Graduate Certificate is supported by an interuniversity Consortium of faculty, the admissions process involves both the UMKC and the Midwest Center for Holocaust Education. Students interested in admissions should contact Dr. Andrew Stuart Bergerson, bergersona@umkc.edu, 816-235-5728, who is the UMKC advisor for the Certificate.
Graduate Certificate in Holocaust Studies

Program Contacts:
Website: Graduate Certificate in Holocaust Studies (http://cas.umkc.edu/holocaust/contacts.asp)

Master of Arts in Liberal Studies Program
106 Cocke Fair Hall
University of Missouri-Kansas City
5100 Rockhill Road
Kansas City, MO 64110

Dr. Andrew Bergerson
Certificate Advisor at UMKC
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close-up@Umkc.edu (bergersona@umkc.edu?subject=Certificate in Holocaust Studies)

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Dr. Larson Powell
Director, Humanities Consortium
Department of Foreign Languages & Literatures
phone: 816-235-1316

Student Learning Outcomes
Students graduating from this program will:

- Knowledge: Mastery of knowledge of the “big questions” of the Holocaust and genocide studies.
- Interconnectedness & Contextualization: Understanding the scope of the Holocaust and genocide studies and the relations between aspects of it.
- Research: The ability to conduct interdisciplinary research in Holocaust and genocide studies.
- Interdisciplinarity: The ability to think about the Holocaust and genocide studies across disciplinary lines.
- Analytic & Creative Synthesis: Ability to analyze and synthesize evidence about the Holocaust and genocide studies.
- Communication: The ability to communicate clearly and effectively to diverse audiences.
- Application & Relevance: The ability to apply what is learned about the Holocaust and genocide studies in diverse contemporary ethical and political contexts.

Curriculum
- Total Credit Hours: 18 credit hours, at least 9 of which must be taken at UMKC.
- Introductory course: This required course introduces students to the “big questions” of Holocaust and genocide studies and to interdisciplinary scholarship. It will be offered each Spring semester and taught by rotating consortium faculty. Students register for this course through the home institutions of the faculty teaching that semester. It is expected that the introductory course is the first course students take in the certificate program. If their enrollment begins in a semester when the course is not offered, students may petition for an exception through their academic adviser.
- Elective coursework: Students must complete 12 additional credit hours from the list of approved courses at participating institutions. The courses are either classified as Core or Contract courses. A minimum of 6 credit hours of core courses must be completed. Contract courses offer students the flexibility to enroll in a course that addresses the Holocaust and genocide studies indirectly, but require an academic contract between the student and professor stipulating how the course material will meet the learning objectives of the Certificate Program. Only six credit hours of contract courses can be counted toward certificate completion. Certificate Course Contract (http://mchekc.org/admin/wp-content/uploads/2014/04/CertificateCourseContract.pdf)
- Capstone Experience:
  - Capstone Course. Students are required to complete a 3-credit capstone course in the final semester of their certificate curriculum. This capstone course may coincide with the capstone course for a degree program with a delay of some semesters as needed. Or, it may be an independent reading and research course with an approved member of an affiliated institution's faculty.
• **Capstone Project.** The final product of this course would consist of an interdisciplinary scholarly project. Students are encouraged to develop capstone projects that demonstrate mastery of all of the six student learning objectives for the program.

• **Reflective Essay.** This requirement includes SLO6 “Application & Relevance” in which students demonstrate their ability to apply knowledge about Holocaust and genocide studies in diverse contemporary ethical and political contexts. If their project does not directly address this learning objective, then the student will be asked to complete an brief reflective essay, submitted in addition to the capstone project, in which they consider what they have learned across the curriculum about the HGS’s application and relevance. It is not required if the capstone project demonstrates mastery of SLO6.

• **Transcripts:** In order to receive credit for a course taken at a consortium institution, students are responsible for asking the registrars at the institutions where the courses were taken to send a transcript to the UMKC registrar (http://www.umkc.edu/registrar). Students must provide transcripts to the program coordinator at MCHE from all institutions at which they took courses.

• **Transferring credits:** For Certificate purposes, students may transfer only courses approved by the Consortium faculty. If students are also enrolled in a regular degree program at UMKC, courses approved for the Certificate may not be transferred in addition to courses allowed for transfer for a degree. Approval for a Certificate transfer does not guarantee approval for any degree: that decision depends on the guidelines for the relevant degree program.
Bachelor of Arts / Graduate Certificate in Holocaust Studies - Dual Degree

This program combines a Bachelor’s degree with the Graduate Certificate in Holocaust Studies. It enables students pursuing a Bachelor’s degree to apply 6 hours of credit from BA coursework at the 300 or 400 level to the Graduate Certificate. All other requirements for both the Bachelor’s degree and the Graduate Certificate, including the requirement that at least 9 hours of Certificate coursework be taken at UMKC, remain. (The full description of the Certificate can be found on the Holocaust Studies website: http://cas2.umkc.edu/holocaust/program.asp.)

Admissions Requirements:

• Status:
  enrolled and in good academic standing at UMKC
  completed 60 credits towards their undergraduate degree
  completed 30 at UMKC

• GPA: 3.0 or higher

• Demonstration of a command of the basic facts of the Holocaust. Students may do so through:
  documented evidence of a prolonged engagement in the teaching of the Holocaust;
  a grade of B or higher taken at the 300-level or higher in Holocaust coursework; OR
  a grade of A- of higher in the course Anch 214: ECHI: Nazi-Occupied Europe and the Holocaust

Since the Graduate Certificate is supported by an interuniversity Consortium of faculty, the admissions process involves both the UMKC and the Midwest Center for Holocaust Education. Students interested in admissions should contact Dr. Andrew Stuart Bergerson, bergersona@umkc.edu, 816-235-5728, who is the UMKC advisor for the Certificate.
Latinx and Latin American Studies Program

Program Description:

The mission of Latinx and Latin American Studies (LLS), a program based in the College of Arts and Sciences, is to function as a vehicle for interdisciplinary and multidisciplinary teaching, research and outreach focusing on Latinas/os-Chicanas/os in the U.S. The LLS program will provide an awareness and understanding of the wide diversity of Latino communities, cultures and backgrounds. The development and expansion of our curricula will serve to empower our students with the concepts and skills to better understand a rapidly growing Latina/o population. The LLS program will engage students, scholars and the greater Kansas City community in collaborative projects, programs and service learning efforts. These efforts will foster new curricula and advance research and outreach scholarship to create new knowledge to better understand the cultural, economic, and historical experiences and contributions of U.S. Latinas/os-Chicanas/os and their diasporic origins.

Program Activities:

• Provide all UMKC students with critical understanding of the historical, political and social context in which Latino/Chicano communities have evolved and continue to be established in the U.S., with particular attention to the greater Kansas City metropolitan area and the Midwest region. Crucial to this goal is the understanding of the transnational nature of these community ties.
• Provide access to a quality education for Latina/o students and other students interested in Latina/o-Chicana/o Studies and at the same time enhance diversity on the campus.
• Strengthen ties with UMKC Latina/o students and other students interested in Latina/o-Chicana/o Studies and at the same time enhance diversity on the campus.
• Engage other area Latina/o professionals in LLS activities
• Strengthen ties between the UMKC and the Latino community.
• Establish UMKC as a center of teaching, learning and research on Latino/Chicano populations.
• Establish and/or strengthen alliances with local Latina/o community organizations, e.g. Guadalupe Center (KCMO), El Centro (KCK), Dos Mundos, KC Hispanic News, Mattie Rhodes Art and Counseling Center, The Mexican Consulate, Latino Writers Collective
• Create alliances/connections with local non-Latina/o organizations, e.g. Nelson-Atkins Art Museum, Kauffman Center for the Performing Arts, Kansas City Public Libraries and the Kansas City Museum

Faculty

Professors:

Norma E. Cantú

Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=cantu); professor of latina/latino studies and english; B.S., M.S. (Texas A&I University); Ph.D. (University of Nebraska-Lincoln)

Miguel A. Carranza

professor emeritus of latina/latino studies and sociology; B.A. (Kearney State College); M.A., Ph.D. (University of Notre Dame).

Associate Professor:

Theresa L. Torres

Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=torres); associate professor of latina/latino studies and sociology; B.A. (Benedictine College); M.A. (Boston College); Ph.D. (Catholic University of America).

Academic Advisor:

Norma E. Cantú

Members of UMKC Graduate Faculty
Undergraduate
Latinx and Latin American Studies Minor (p. 428)

Courses

LLS 201 Introduction to Latina/o Studies Credits: 3
This course addresses and examines the social, economic, and political factors that have influenced the historical experiences of Latinas and Latinos in the U.S. Attention will focus on the major concepts, issues and debates in the field of Latina/Latino Studies. Particular consideration will be given to an analysis of and understanding as to how these factors have influenced the past and present status of Latinos in U.S. society. Given the diversity existing within the Latino population, the course will be comparative, cross-cultural, and interdisciplinary in nature.

LLS 300 Special Topics in Latinx and Latin American Studies Credits: 3
A variable content course offered in the area of Latinx and Latin American studies.

LLS 310 The World of Latinx Youth and Adolescents in the U.S. Credits: 3
This course will provide a general introduction and in-depth understanding to the largest group of racial/ethnic adolescents in the United States: Latinx youth. An historical examination of Latinx youth will provide a better understanding of their present status, with emphasis on their contact and interactions within social institutions. Additionally, students will analyze the experiences Latinx youth have within and among other groups in the broader social context based on past, present, and possible future interactions.

Cross Listings: SOCIOL 338.

LLS 322 Race and Ethnic Relations Credits: 3
The nature, origin and dynamics of ethnic and race relations in the U.S. and other societies. Specific attention will be given to the historical and contemporary contexts of prejudice discrimination and confrontation.

LLS 348 Latinx Immigrants, Migrants, and Refugees in the U.S. Credits: 3
This course addresses the culture of societies of U.S. citizens, immigrants, and refugees of Latin American heritage living in the U.S. The course emphasizes recent anthropological, historical, cultural, and sociological studies.

Cross Listings: SOCIOL 348 and ANTHRO 348.

LLS 397 Independent Readings in Latinx and Latin American Studies Credits: 1-3
Students will complete extensive readings in an area selected by the student with prior consultation with instructor.

LLS 400 Advanced Special Topics in Latinx and Latin American Studies Credits: 1-3
This course is a variable content course and offered as a result of specialized faculty interest, student demand, or the availability of a visiting expert in a field closely related to Latinx and Latin American Studies.

LLS 421 Made in the USA: Latinx Art and Experience Credits: 3
This course focuses on art of and by members of the U.S. Latinx community. Students in this course will engage with the politics of representation, gender, sexuality, race, class, and ethnicity in Latinx art, as well as visual and popular culture.

LLS 497 Directed Research Credits: 1-3
Students will develop and conduct a research project in an area selected by the student under the supervision of a faculty member. Students may only enroll in 6 total credits of LLS 497 during their time at UMKC.

Prerequisites: Junior or Senior Level Standing.
Latinx and Latin American Studies Minor

Student Learning Outcomes

Students graduating from this program will:

- Examine the role of Latinos and the Latino Diaspora in U.S. society and the growing role of the transnationalism of Latino immigrants going to and from the U.S. to Mexico, Central America and the Caribbean.
- Acquire an understanding of the experiences, contributions and condition of Latinos in the formation of U.S. society and culture.
- Employ Latina/Latino Studies theories and approaches as essential tools to understand and assess the human experience.
- Critically analyze and communicate an awareness of culture and diversity in our global world.
- Examine and evaluate the breadth and depth of the growing diversity represented within the Latino experience in the U.S.

The minor in Latina/Latino Studies is comprised of 18 hours. Nine (9) credit hours must be in upper division (300 or 400) level courses. A minimum of nine (9) of the 18 hours are required in Latina/Latino Studies.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>LLS 201</td>
<td>Introduction to Latina/o Studies</td>
<td>3</td>
</tr>
<tr>
<td>ANCH 202</td>
<td>Crossing Boundaries</td>
<td>1</td>
</tr>
<tr>
<td>LLS 300</td>
<td>Special Topics in Latina/Latino Studies</td>
<td></td>
</tr>
<tr>
<td>LLS 310</td>
<td>The World of Latino Youth and Adolescents in the U.S.</td>
<td></td>
</tr>
<tr>
<td>LLS 380</td>
<td>Introduction to Latina/Latino Literature</td>
<td></td>
</tr>
<tr>
<td>LLS 397</td>
<td>Independent Readings in Latina/Latino Studies</td>
<td></td>
</tr>
<tr>
<td>LLS 400</td>
<td>Special Topics in Latina/Latino Studies</td>
<td></td>
</tr>
<tr>
<td>ART-HIST 443</td>
<td>Meso-American Art</td>
<td></td>
</tr>
<tr>
<td>SPANISH 365</td>
<td>The Search For Mexican Identity</td>
<td></td>
</tr>
<tr>
<td>SPANISH 415</td>
<td>Advanced Conversation And Composition I</td>
<td></td>
</tr>
<tr>
<td>SPANISH 460</td>
<td>U.S.-Latino Literature</td>
<td></td>
</tr>
<tr>
<td>GEOG 342</td>
<td>Geography of Mexico, Central America and the Caribbean</td>
<td></td>
</tr>
<tr>
<td>HISTORY 406</td>
<td>Modern Latin America</td>
<td></td>
</tr>
<tr>
<td>SOCIOl 348</td>
<td>Latina/Latino Immigrants &amp; Migrants in the U.S.</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

1 Anchor courses cannot be counted both as a general education requirement and a minor requirement.
Liberal Studies Program

University of Missouri - Kansas City
Liberal Studies Program
Cockefair Hall 106
5100 Rockhill Road
Kansas City, MO 64110-2499

Program Director
Jeff Rydberg-Cox, Ph.D., Professor, Department of English
rydbergcoxj@umkc.edu, (816) 235-2560

MALS Program Advisor
April Austin, Ph.D.
austinal@umkc.edu, (816) 235-6257
mals@umkc.edu (64110-2499mals@umkc.edu)

BLA Program Advisor
Erica Wolfe
wolfeem@umkc.edu, 816/235-6270

Undergraduate
Undergraduate Degrees:
• Bachelor of Liberal Arts (p. 430)

Graduate
Graduate Degree:
• Master of Arts in Liberal Studies (p. 434)
• Graduate Certificate in Holocaust Studies (p. 420)
Bachelor of Liberal Arts

Office Location:
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(816) 235-2560

Mailing Address:
University of Missouri - Kansas City
Liberal Studies Program
Cockefair Hall 106
5100 Rockhill Road
Kansas City, MO 64110-2499

Program Director:
Jeff Rydberg-Cox, Ph.D., Department of English, rydbergcoxj@umkc.edu, (816) 235-2560

Program Description
The College of Arts and Sciences offers the bachelor of liberal arts (B.L.A.) degree for individuals who seek scientific literacy, an understanding of the social sciences and an appreciation of the humanities. The B.L.A. is an alternative to the B.A./B.S. degree programs and is for individuals who do not wish to commit themselves to a specialty, whose aspirations are not served by a traditional major, and who desire maximum flexibility in course selection.

Students who have found the B.L.A. degree particularly beneficial are those who have matriculated into the six-year medical program and pursue the combined B.L.A./M.D. degrees and those students wishing to apply to the UMKC School of Law through the Early Entry Law Program.

Potential for Graduate Study
Students completing the B.L.A. degree have the potential to pursue graduate study in many areas. One option is the Master of Arts in Liberal Studies, a master’s degree similar in structure to the B.L.A., which continues the tradition of interdisciplinary work in the College at the intermediate level between baccalaureate and doctoral work. Students completing the B.L.A. degree who wish to continue their education at the graduate level are strongly encouraged to seek counsel from a graduate adviser in that discipline early in their undergraduate career.

University Requirements
General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

• Be able to identify and articulate scholarly questions based on evidence and approaches from more than one disciplinary area.
• Be able to demonstrate the ability to gather and organize scholarly literature and raw data needed to answer scholarly questions.
• Be able to demonstrate the ability to analyze and evaluate scholarly literature and raw data to answer scholarly questions.
• Be able to effectively communicate the results of their work via either expository rhetoric or a creative work to an audience that does not specialize in their area of study or share their disciplinary perspective.
• Be able to effectively craft their program of study for intellectual and professional purposes as the foundation for life-long learning.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I 1</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor II 1</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor III 1</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A 1</td>
<td>Focus A (Satisfied in program requirements below)</td>
<td>3</td>
</tr>
<tr>
<td>Focus C (May be satisfied by Constitution course requirement below)</td>
<td>Focus Elective 1</td>
<td>3</td>
</tr>
</tbody>
</table>

‘Total credits’ in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 24

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) 1</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

• Take an equivalent course from the list above at a regionally accredited institution.
• Earn credit for one of the above courses through AP, IB, or CLEP.
• Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
• Have a previous bachelors degree (or higher) from a regionally accredited institution.
• Have an Associate of Arts degree from a regionally accredited institution.
• Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Addition details are available in the Student Services section of the catalog.
Bachelor of Liberal Arts

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ALEKS Math Placement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Arts and Humanities Division of CAS</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Science and Math Division of CAS</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Social and Behavioral Sciences Division of CAS</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Writing Intensive Course (300-level or above)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MATH 110                Precalculus Algebra (or any 200-level or above Math/Stat course)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or MATH 116              Mathematics For Liberal Arts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or MATH 120              Precalculus</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Laboratory Science Experience</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td>25</td>
</tr>
</tbody>
</table>

1. ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.
2. This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

BLA Requirements

Hour Requirements and Eligibility
A 2.0 GPA is required to declare intent to pursue the B.L.A. and a 2.0 overall GPA is required by the University of Missouri for graduation.

The credit/non-credit option is not available for students pursuing this degree.

Minor Requirement
Students must complete a minor offered by any interdisciplinary program or department in the University. Students may also complete a Missouri Department of Higher Education (MDHE) approved emphasis area to fulfill the minor requirement. The Black Studies Emphasis Area (p. 95) is currently the only MDHE approved emphasis area for the BLA. Students will work with the faculty adviser corresponding to the selected minor or emphasis area.

Area Requirements and Limitations Applicable to This Degree

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Humanities Area (18 credit hours required; 6 of which are satisfied by CAS distribution requirements above)</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Natural Sciences (18 credit hours required; 6 of which are satisfied by CAS distribution requirements above)</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Social Sciences Area (18 credit hours required; 6 of which are satisfied by CAS distribution requirements above)</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td>36</td>
</tr>
</tbody>
</table>

At least 36 of the total hours must be at the junior/senior (300-400) level. Twelve of these junior/senior (300-400) level hours must be taken within the BLA Area Requirements at UMKC or in the College of Arts and Sciences at UMKC. Additionally, coursework must be taken from at least two departments in each division.

Students should note that some departments within the College of Arts and Sciences (for example, geosciences and history departments) offer coursework that can be applied to more than one division. Students should consult with an advisor in selecting coursework to ensure that they receive proper credit in the various divisions required for the degree.

General Electives
Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>32</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0

Total Credit Hours: 120

Tools for Planning and Fulfilling Academic Requirements
UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”.

In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.
UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student's officially recorded (Office of Registration and Records) and "what if" plans of study. This evaluation is used to certify all graduation requirements.

UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Master of Arts in Liberal Studies  

Program Description

The Master of Arts in Liberal Studies (MALS) degree program enables individuals to pursue interdisciplinary studies at the graduate level. Courses provide students the opportunity to extend the best experiences of baccalaureate liberal education to the graduate level.

Students admitted to the program will be encouraged to select one of the graduate certificate programs or informal focus areas listed below and will develop a program of study with the cooperation of the assigned advisor.

- Bioethics (graduate certificate)
- Black Studies (graduate certificate or informal focus area)
- Film and Media Studies (informal focus area)
- Gerontology (graduate certificate)
- Holocaust Studies (graduate certificate)
- Humanities Consortium (informal focus area)
- Medieval and Early Modern Studies (graduate certificate)
- Women’s and Gender Studies (informal focus area)

Alternatively, students with a strong interest in a different interdisciplinary area of study within the College of Arts and Sciences may submit a statement indicating interest in designing an individualized plan of study. In order to ensure that courses to support a proposed individualized plan of study are available at UMKC, students who want to pursue this option should suggest a list of courses offered in the College of Arts and Sciences that could contribute to their desired area of study. Students wishing to pursue this option should contact the MALS advisor for assistance developing this list of courses.

Student diplomas will list the degree as a Master of Arts in Liberal Studies. The subject field of approved graduate certificates will be designated on a student transcript. Students pursuing informal focus areas with the Master of Arts in Liberal Studies will not have these subject designations on their transcript.

Admission to the Program

Individuals admitted to the program must have a baccalaureate or equivalent degree and mature academic interests. A minimum undergraduate 3.25 GPA is desirable but can be offset by professional and career accomplishments outside academe.

Individuals applying for admission should submit, in addition to the UMKC application, the following documents:

- a statement of purpose in the form of a personal essay of approximately 1,000 words outlining the focus area the applicant wishes to pursue, reasons for applying, and academic plans and goals. Any applicant who does not choose one of the specific certificate programs or informal focus areas listed for the MALS program should also include a statement indicating interest in designing an individualized plan of study. Such a statement should indicate the proposed area of study and a list of courses offered in the College of Arts and Sciences that would contribute to the area of study.
- a sample of recent academic writing
- 3 letters of recommendation

These documents (except the UMKC application) should be sent directly to the Master of Arts in Liberal Studies Program, UMKC, 5121 Rockhill Road, Cockefair 106, Kansas City, MO 64110.

Prior to submitting an application, prospective students should speak with the program advisor or a member of the faculty who works in their chosen focus area.

The deadline to apply for Fall Semester is March 1. The deadline to apply for Spring Semester is November 1.

Student Learning Outcomes

Students graduating from this program will:

- be able to identify and articulate scholarly problems and questions based on evidence and approaches from more than one disciplinary area at an advanced level.
- be able to gather and organize the primary source materials and raw data needed to answer these questions at an advanced level.
- be able to analyze relevant primary source materials and raw data to create a coherent answer to a scholarly problem or question at an advanced level.
- be able to critically appraise scholarly conversations in multiple fields, create a coherent interpretation, and take a critical position in these debates.
be able to effectively communicate, at an advanced level, the results of their work via either expository prose or a creative work to an audience that does not specialize in their area of study or share their disciplinary perspective.

Requirements for Completion of the Degree

The degree is a 36 credit hour program. Generally, each participant's plan of study will consist of three parts.

Program participants begin by enrolling in A&S 5509. On completion of this required three hour introductory seminar, participants earn 30 credit hours based on the study plan associated with their graduate certificate program, informal focus area, or their individual study plan. At the conclusion of the program, individuals enroll in a required three hour capstone seminar, A&S 5520.

Please consult the MALS website at cas.umkc.edu/MALS for advising worksheets for each of the graduate certificate programs and informal focus areas that can be pursued in conjunction with the MALS.

A written thesis is not required, but individuals who wish to complete a thesis project may apply three credit hours of A&S 5540 toward their degree requirements. An individual who works well independently and who has a particular interest that lends itself to detailed research is especially encouraged to consider the thesis option. With the thesis option, the participant will select a faculty advisor who will direct the plan of study and research.

Two courses (6 hours) may be taken from another school at the university outside of the College of Arts and Sciences. No more than 12 hours at the 400-level (or 300-level when permitted by the department) may be applied to the plan of study.

Relationship of the MALS to Interdisciplinary Doctoral Degrees

The College of Arts and Sciences has a strong tradition of interdisciplinary studies at both the baccalaureate and doctoral levels.

The Master of Arts in Liberal Studies degree continues the tradition of interdisciplinary work in the college at the intermediate level between baccalaureate and doctoral work. In a few cases, students completing this degree may find the transition to doctoral work as the appropriate next step. However, students should recognize that the degree is not designed to provide students in the program with specific subject skills usually associated with targeted career objectives in traditional research areas.

Students interested in coordinating their M.A. in Liberal Studies coursework with future doctoral work at UMKC are strongly encouraged to make this intent known at the outset of their work. Without initial planning conducted with a committee of doctoral faculty, a student's master's coursework may not be appropriate to later doctoral studies.
Graduate Certificate in Holocaust Studies

Program Contacts:
Website: Graduate Certificate in Holocaust Studies (http://cas.umkc.edu/holocaust/contacts.asp)

Master of Arts in Liberal Studies Program
106 Cockefair Hall
University of Missouri-Kansas City
5100 Rockhill Road
Kansas City, MO 64110

Dr. Andrew Bergerson
Certificate Advisor at UMKC
Department of History
phone: 816.235.6257
e-mail: bergersona@umkc.edu (bergersona@umkc.edu?subject=Certificate in Holocaust Studies)

Shelly Cline
Certificate Coordinator at Midwest Center for Holocaust Education (MCHE)
phone: 913-327-8195
e-mail: shellyc@mchekc.org (shellyc@mchekc.org?subject=Certificate in Holocaust Studies)

MALS Program
phone: 816.235.6257
e-mail: mals@umkc.edu (mals@umkc.edu?subject=Certificate in Holocaust Studies)

Dr. Larson Powell
Director, Humanities Consortium
Department of Foreign Languages & Literatures
phone: 816-235-1316

Student Learning Outcomes

Students graduating from this program will:

- Knowledge: Mastery of knowledge of the “big questions” of Holocaust and genocide studies.
- Interconnectedness & Contextualization: Understanding the scope of the Holocaust and genocide studies and the relations between aspects of it.
- Research: The ability to conduct interdisciplinary research in Holocaust and genocide studies.
- Interdisciplinarity: The ability to think about the Holocaust and genocide studies across disciplinary lines.
- Analytic & Creative Synthesis: Ability to analyze and synthesize evidence about the Holocaust and genocide studies.
- Communication: The ability to communicate clearly and effectively to diverse audiences.
- Application & Relevance: The ability to apply what is learned about the Holocaust and genocide studies in diverse contemporary ethical and political contexts.

Curriculum

- **Total Credit Hours**: 18 credit hours, at least 9 of which must be taken at UMKC.
- **Introductory course**: This required course introduces students to the “big questions” of Holocaust and genocide studies and to interdisciplinary scholarship. It will be offered each Spring semester and taught by rotating consortium faculty. Students register for this course through the home institutions of the faculty teaching that semester. It is expected that the introductory course is the first course students take in the certificate program. If their enrollment begins in a semester when the course is not offered, students may petition for an exception through their academic adviser.
- **Elective coursework**: Students must complete 12 additional credit hours from the list of approved courses at participating institutions. The courses are either classified as Core or Contract courses. A minimum of 6 credit hours of core courses must be completed. Contract courses offer students the flexibility to enroll in a course that addresses the Holocaust and genocide studies indirectly, but require an academic contract between the student and professor stipulating how the course material will meet the learning objectives of the Certificate Program. Only six credit hours of contract courses can be counted toward certificate completion. Certificate Course Contract (http://mchekc.org/admin/wp-content/uploads/2014/04/CertificateCourseContract.pdf)
- **Capstone Experience**: Students are required to complete a 3-credit capstone course in the final semester of their certificate curriculum. This capstone course may coincide with the capstone course for a degree program with a delay of some semesters as needed. Or, it may be an independent reading and research course with an approved member of an affiliated institution’s faculty.
• **Capstone Project.** The final product of this course would consist of an interdisciplinary scholarly project. Students are encouraged to develop capstone projects that demonstrate mastery of all of the six student learning objectives for the program.

• **Reflective Essay.** This requirement includes SLO6 “Application & Relevance” in which students demonstrate their ability to apply knowledge about Holocaust and genocide studies in diverse contemporary ethical and political contexts. If their project does not directly address this learning objective, then the student will be asked to complete an brief reflective essay, submitted in addition to the capstone project, in which they consider what they have learned across the curriculum about the HGS’s application and relevance. It is not required if the capstone project demonstrates mastery of SLO6.

• **Transcripts:** In order to receive credit for a course taken at a consortium institution, students are responsible for asking the registrars at the institutions where the courses were taken to send a transcript to the UMKC registrar (http://www.umkc.edu/registrar). Students must provide transcripts to the program coordinator at MCHE from all institutions at which they took courses.

• **Transferring credits:** For Certificate purposes, students may transfer only courses approved by the Consortium faculty. If students are also enrolled in a regular degree program at UMKC, courses approved for the Certificate may not be transferred in addition to courses allowed for transfer for a degree. Approval for a Certificate transfer does not guarantee approval for any degree: that decision depends on the guidelines for the relevant degree program.
Bachelor of Arts / Graduate Certificate in Holocaust Studies - Dual Degree

This program combines a Bachelor's degree with the Graduate Certificate in Holocaust Studies. It enables students pursuing a Bachelor's degree to apply 6 hours of credit from BA coursework at the 300 or 400 level to the Graduate Certificate. All other requirements for both the Bachelor's degree and the Graduate Certificate, including the requirement that at least 9 hours of Certificate coursework be taken at UMKC, remain. (The full description of the Certificate can be found on the Holocaust Studies website: http://cas2.umkc.edu/holocaust/program.asp.)

Admissions Requirements:

• Status:
  enrolled and in good academic standing at UMKC
  completed 60 credits towards their undergraduate degree
  completed 30 at UMKC
• GPA: 3.0 or higher
• Demonstration of a command of the basic facts of the Holocaust. Students may do so through:
  documented evidence of a prolonged engagement in the teaching of the Holocaust;
  a grade of B or higher taken at the 300-level or higher in Holocaust coursework; OR
  a grade of A- or higher in the course Anch 214: ECHI: Nazi-Occupied Europe and the Holocaust

Since the Graduate Certificate is supported by an interuniversity Consortium of faculty, the admissions process involves both the UMKC and the Midwest Center for Holocaust Education. Students interested in admissions should contact Dr. Andrew Stuart Bergerson, bergersona@umkc.edu, 816-235-5728, who is the UMKC advisor for the Certificate.
Department of Mathematics and Statistics

Haag Hall, Room 206
5120 Rockhill Road
(816) 235-1641
math@umkc.edu
http://cas.umkc.edu/math

Mailing Address
University of Missouri-Kansas City
Department of Mathematics and Statistics
HH 206
5120 Rockhill Road
Kansas City, MO 64110-2499

Department Chair:
Eric Hall

Emeriti Faculty:

Professors:
Kamel Rekab, Noah H. Rhee, Yong Zeng

Associate Professors:
Eric Hall, Hristo Voulov, Liana Sega

Teaching Professor:
Richard Delaware

Assistant Professors:
Xianping Li, Majid Bani-Yaghoub, David Spade

Lecturers:
Kristin Kathman, Stephanie Van Rhein

Department Description
The Department of Mathematics and Statistics offers coursework leading to the Bachelor of Arts and Bachelor of Science degrees in Mathematics. At the graduate level, the department offers a Master of Science degree in Mathematics and a Master of Science degree in Statistics, and participates in the UMKC School of Graduate Studies Interdisciplinary Ph.D. program. Qualified students can select Mathematics as the coordinating unit or a co-discipline when applying for admission or preparing their plans of study. See the School of Graduate Studies (p. 1281) section in the Graduate Catalog for more information about the Ph.D. program.

These programs are designed to develop the student’s own knowledge of mathematics or statistics, and to provide the tools and understanding necessary for the study of other scientific and quantitative fields.

The Department of Mathematics and Statistics has an institutional membership in the American Mathematical Society.

Advising System
Advising is on an individual basis with senior mathematics faculty members. Appointments for advising may be made by contacting the department, the undergraduate advisor, the principal graduate advisor, or the interdisciplinary Ph.D. coordinator.

Library Resources
In addition to UMKC’s Miller Nichols Library, the department has full access to the holdings and services of the Linda Hall Library of Science and Technology (http://www.lindahall.org), a privately endowed institution of international prominence. The Linda Hall Library subscribes to more than 700 mathematics journals and maintains a large and growing collection of mathematics books.

Faculty
Majid Bani-Yaghoub Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=bani); assistant professor of mathematics; Ph.D. (Carleton University, Canada).
Richard Delaware Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=delaware); teaching professor of mathematics; B.S. (Santa Clara University); M.A. (University of Kansas); Ph.D. (University of Missouri - Kansas City).

Eric J. Hall Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=hall); associate professor of mathematics; B.A. (Carleton College); Ph.D. (University of Michigan).

Kristin Kathman Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=van%20rhein); lecturer in mathematics; B.S., M.S. (University of Missouri - Kansas City).

Xianping Li Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=li); assistant professor of mathematics; Ph.D. (University of Kansas).

Kamel Rekab Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=rekab); professor of statistics; M.S. (Stanford University); Ph.D. (University of Michigan).

Noah H. Rhee Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=rhee); professor of mathematics; B.S. (Seoul National University, South Korea); Ph.D. (Michigan State University).

Liana Sega Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=sega); associate professor of mathematics; B.S. (University of Bucharest, Romania); Ph.D. (Purdue University).

Stephanie Van Rhein Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=van%20rhein); lecturer in mathematics; B.S., M.S. (University of Missouri University of Science and Technology).

Hristo D. Voulov Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=voulov); associate professor of mathematics; M.S., Ph.D. (Sofia University, Bulgaria).

Yong Zeng Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=zeng); professor of statistics; B.S. (Fudan University, China); M.S. (University of Georgia); Ph.D. (University of Wisconsin - Madison).

1 Associate or Adjunct Graduate Faculty
2 Members of UMKC Graduate Faculty
3 Members of UMKC Doctoral Faculty

Undergraduate
Undergraduate Degrees:
• Bachelor of Arts in Mathematics and Statistics (p. 448)
• Bachelor of Science in Mathematics and Statistics (p. 451)
• Minor in Mathematics (p. 454)
• Teacher Certification in Mathematics (p. 455)

Graduate
Graduate Degrees:
• Master of Science in Mathematics (p. 456)
• Master of Science in Statistics (p. 458)
• Interdisciplinary Ph.D. in Mathematics (p. 464)

Mathematics Courses
MATH 100 Intermediate Algebra Credits: 3
Numbers and their arithmetic properties, introduction to elementary algebra including exponents and radicals, elementary geometry and formulas, linear and quadratic functions and their graphs, and equations with two unknowns. Grades are not counted toward GPA. Does not fulfill Arts and Sciences mathematics requirement. Does not count toward graduation.
MATH 109 Precalculus Algebra Fundamentals Credits: 2
This course is required for students not meeting full placement requirements for MATH 110 (Precalculus Algebra) in order to concurrently enroll in MATH 110. Fundamental topics and skills that are necessary for success in MATH 110 will be developed in close alignment with the material covered in MATH 110 over the course of the semester. Students enrolling in this co-requisite course must remain enrolled in both courses for the semester. Students will not be permitted to withdraw from one of the courses (either MATH 109 and MATH 110) and not the other. Grades are not counted toward GPA. Does not fulfill Arts and Sciences mathematics requirement. Does not count toward graduation.
Prerequisites: ALEKS assessment score of 35 or higher, or ACT mathematics score of 18 or higher.
Co-requisites: MATH 110.

MATH 110 Precalculus Algebra Credits: 3
Functions and graphs. Inverses, compositions, and transformation of functions. Solving equations, systems of equations, and inequalities. Linear, quadratic, polynomial, and rational functions. Exponential and logarithm functions and applications.
Prerequisite: Grade of B- or higher in MATH 100, ALEKS assessment score of 51 or higher, ACT mathematics score of 22 or higher, or concurrent enrollment in MATH 109.

MATH 110 - MOTR MATH 130: Pre-Calculus Algebra

MATH 116 Mathematics For Liberal Arts Credits: 3
A survey of elementary mathematics covering such topics as: logic, sets, counting methods, introduction to probability theory, introductory statistics, plane and coordinate geometry. The course will emphasize mathematical concepts and does not require the level of computational skill of College Algebra. Topics from the history of mathematics will be presented as well as the influence of mathematics on a variety of disciplines. Recommended preparation: Three units of high school mathematics Algebra I and higher.

MATH 116 - MOTR MATH 120: Mathematical Reasoning Modeling

MATH 120 Precalculus Credits: 5
Functions and graphs. Inverses, compositions, and transformation of functions. Solving equations and systems of equations, and inequalities. Linear, quadratic, polynomial, and rational functions. Exponential and logarithm functions and applications. Trigonometric functions, trigonometric identities, triangles. Credit will be given for either MATH 110 or MATH 120, and for either MATH 120 or MATH 125.
Prerequisite: Grade of B- or higher in MATH 100, ALEKS assessment score of 56 or higher, or concurrent enrollment in MATH 109.

MATH 120 - MOTR MATH 150: Pre-Calculus

MATH 125 Trigonometry Credits: 2
Trigonometric functions, trigonometric identities, triangles, and complex numbers. Credit will be given for either MATH 120 or MATH 125.
Prerequisites: MATH 110 (C- or higher), or ALEKS assessment score of 63% or higher.

MATH 130 Mathematics for Teachers: Number Systems Credits: 3
Designed for elementary school teachers. A constructive development of the real number system beginning with the system of whole numbers; concepts from elementary number theory; applications of quantitative systems to problems in discrete mathematics. Recommended preparation: High school algebra and geometry.

MATH 140 Mathematics for Teachers: Elementary Geometry Credits: 3
Designed for elementary school teachers. A development from informal geometric concepts to elements of the Euclidean deductive system; groups of congruence transformations, similarity transformations and symmetries; coordinate systems and vectors. Recommended preparation: High school algebra and geometry.

MATH 202 Analytic Geometry Credits: 3
Coordinate plane, lines, circles, the parabola, the ellipse, the hyperbola, transformation of coordinates, equations of the second degree, curve sketching, polar coordinates and parametric equations, complex numbers, vectors and vector operations, and solid analytic geometry.
Prerequisites: MATH 110 (or 4 units of high school math).
Co-requisites: MATH 125.
MATH 204 Mathematics for Teachers: Mathematical Immersion Credits: 3
**Prerequisites:** MATH 120 or MATH 130 or MATH 140 or any MATH course 200 or above.

MATH 205 Discrete Mathematics Credits: 3

MATH 206 Brief Calculus And Matrix Algebra Credits: 3
Brief review of selected topics in algebra. Introduction to matrix algebra. Introduction to differential calculus and optimization. Applications to problems in business.
**Prerequisites:** MATH 110 (C- or higher), or ALEKS assessment score of 63% or higher.

MATH 210 Calculus I Credits: 4
Functions and graphs, rational, trigonometric, exponential functions, composite and inverse functions, limits and continuity, differentiation and its applications, integration and its applications.
**Prerequisites:** MATH 120 (C- or higher), or both MATH 110 and MATH 125 (C- or higher), or ALEKS assessment score of 76% or higher.

MATH 214 Mathematics for Teachers: Algebra Credits: 3
Designed for middle school mathematics teachers. Algebraic reasoning, patterns and inductive reasoning, arithmetic and algebra of integers, algebraic systems, algebraic modeling in geometry, axiomatic mathematics.
**Prerequisites:** MATH 110, MATH 130, MATH 140 (or MATH 224).

MATH 215 Calculus II Credits: 4
Techniques of integration, applications of the definite integral, improper integrals, sequences and series, power series. Taylor series and convergence, analytic geometry in calculus.
**Prerequisites:** MATH 210 (or MATH 216).

MATH 216 Calculus for Biological Sciences Credits: 4
Introductory calculus designed for students in health and biological sciences. Topics include functions, limits and continuity, trigonometric functions, differentiation and its applications, integration, mathematical modeling, and discrete dynamical systems. Group projects are an integral part of this course. Credit will not be given for both MATH 216 and MATH 210.
**Prerequisites:** MATH 120 (C- or higher), or both MATH 110 and MATH 125 (C- or higher), or ALEKS assessment score of 76% or higher.

MATH 220 Calculus III Credits: 4
Vectors, solid analytic geometry, vector functions and multiple variable functions, partial derivatives, multiple integrals, line and surface integrals with applications.
**Prerequisites:** MATH 220.

MATH 224 Mathematics for Teachers: Geometry Credits: 3
Designed for middle school mathematics teachers to connect middle school and college mathematics. Geometric reasoning, Euclidean geometry, congruence, area and volume, similarity, rigid motions and symmetry, vectors and transformations, some other geometries. Recommended Preparation: MATH 140.
**Prerequisites:** MATH 110, MATH 130.

MATH 226 Biomath II: Statistics and Modeling Credits: 3
Calculus-based statistics and modeling designed for students in the biological sciences or mathematics majors interested in the application of mathematics to these sciences. Topics include introductory ordinary differential equations, continuous dynamical systems, stochastic modeling, elementary probability, random variables, binomial distributions, Poisson distributions, normal distributions, point estimation, confidence intervals, hypothesis testing, ANOVA, and regression. Credit will be given for either MATH 226 or STAT 235 (or STAT 236).
**Prerequisites:** MATH 210 (or MATH 216).

MATH 244 Mathematics for Teachers: Calculus Credits: 4
Designed for elementary and middle-school mathematics teachers. Elementary calculus, beginning with sequences and series, proceeding to functions, limits, continuity, differentiation and integration. Focus on concepts and applications with a discovery and inquiry approach.
**Prerequisites:** MATH 120 (or four units of high school mathematics including Trigonometry, or MATH 110 and MATH 125).

MATH 250 Calculus III Credits: 4
Vectors, solid analytic geometry, vector functions and multiple variable functions, partial derivatives, multiple integrals, line and surface integrals with applications.
**Prerequisites:** MATH 220.

MATH 256 Accelerated Calculus I Credits: 4
An accelerated first course in calculus focusing on application of differential calculus and basic vector and matrix calculations. Enrollment in this course requires permission from the School of Computing and Engineering.
**Prerequisites:** By Permission after review of: ACT Math 25/four years of high school math including pre-calculus or calculus with an average of B or higher; School of Computing Engineering Student.
MATH 268 Accelerated Calculus II Credits: 3
An accelerated second course in calculus focusing on application of integral calculus, analytic geometry, and vector analysis.
Prerequisites: MATH 266; School of Computing Engineering Student.

MATH 300 Linear Algebra I Credits: 3
Linear equations, matrix algebra, real vector spaces, linear transformations, determinants, eigenvalues and eigenvectors, orthogonality, and applications.
Prerequisites: MATH 250, (or MATH 220 and COMP-SCI 191).

MATH 301 On Solid Ground: Sets and Proof Credits: 3
This course is a transition from procedural mathematics, such as calculus, to advanced mathematics where proofs are the professional language of discourse. It covers basic set theory and logic, relations and functions, and how to analyze, construct, and write clearly reasoned, well-structured elementary proofs using universal techniques. This course satisfies a state requirement for teacher certification.
Prerequisites: MATH 220.

MATH 345 Ordinary Differential Equations Credits: 4
First order equations, linear second order differential equations, Taylor series and power series solutions, Laplace transforms, elementary systems of differential equations, numerical methods, and Fourier series and boundary value problems.
Prerequisites: MATH 250.

MATH 402 Advanced Analysis I Credits: 3
Numerical sequences and completeness of the real numbers, numerical series, continuity and differentiation of real-valued functions of a real variable, integration and the fundamental theorem of calculus.
Prerequisites: MATH 250, MATH 301.

MATH 406 Partial Differential Equations Credits: 3
Separation of variables, boundary value problems, Fourier series and integrals, wave equation, heat equation, potential equation, problems in several dimensions, and Bessel's differential equation.
Prerequisites: MATH 345 (or E&C-ENGR 241, or MEC-ENGR 272).

MATH 407 Introduction to Complex Variables Credits: 3
Complex numbers, complex differentiation, elementary functions, contour integration and the Cauchy integral formula, Taylor series and Laurent series, residue calculus and its applications, and special functions.
Prerequisites: MATH 250, a 300-level MATH course (or E&C-ENGR 241, or MEC-ENGR 272).

MATH 410 Modern Algebra Credits: 3
Groups, rings, integral domains, fields and polynomial rings.
Prerequisites: MATH 300, MATH 301.

MATH 412 Advanced Analysis II Credits: 3
Topics in advanced analysis such as sequences and series of functions, power series and elementary functions, Fourier series, metric spaces, analysis in Euclidean spaces, or advanced integration.
Prerequisites: MATH 402.

MATH 414 Mathematics for Secondary Teachers: Algebra and Analysis Credits: 3
Designed for secondary-school teachers. Examine high school mathematics from a higher point of view. Real and complex numbers, functions, algebraic structures of equations, integers and polynomials, number system structures; analyses of alternate approaches, extensions, and applications of mathematical ideas, discussion of historical contexts and connections between ideas that may have been studied separately in different courses, relationships of ideas studied in secondary-school to those students may encounter in later study. When taken for graduate credit as MATH 5514, an extra project is required.
Prerequisites: MATH 300, MATH 301.

MATH 420 Linear Algebra II Credits: 3
The topics of MATH 300 are expanded and presented in the context of vector spaces over a field, with rigorous justification. Vector spaces and linear transformations, determinants, eigenvalues and eigenvectors, inner product spaces and orthogonality.
Prerequisites: MATH 300, MATH 301.

MATH 424 Mathematics for Secondary Teachers: Geometry Credits: 3
Designed for secondary-school teachers. Examine high school mathematics from a higher point of view. Congruence, distance and similarity, trigonometry, area and volume, axiomatics and Euclidean geometry; analyses of alternate approaches, extensions, and applications of mathematical ideas, discussion of historical contexts and connections between ideas that may have been studied separately in different courses, relationships of ideas studied in secondary-school to those students may encounter in later study. When taken for graduate credit as MATH 5524, an extra project is required.
Prerequisites: MATH 300, MATH 301.
MATH 430 Numerical Analysis I Credits: 3
Error analysis, solutions of equations of one variable, interpolation and polynomial approximation, numerical integration and differentiation, numerical solutions of initial-value problems.
Prerequisites: MATH 250 (or E&C-ENGR 241, or MEC-ENGR 272).

MATH 434 Introduction to Scientific Computing Credits: 3
This course provides a comprehensive introduction to numerical methods used in scientific computing. It focuses on solving math models arising from other fields such as physics, engineering, biology, and economics. The topics include mathematical foundations, numerical linear algebra, finite difference method, finite volume method, finite element method, and parallel computing.
Prerequisites: MATH 300 or COMP-SCI 393.

MATH 440 Numerical Analysis II Credits: 3
Direct and iterative methods for solving linear systems, introduction to approximation theory, approximating eigenvalues and eigenvectors, solution of systems of nonlinear equations.
Prerequisites: MATH 300, MATH 430.

MATH 444 Modern Geometries Credits: 3
Modern axiomatic development of Euclidean geometry and neutral geometry, followed by examination of non-Euclidean geometries; geometric transformations, and other geometries as time permits. Satisfies a state requirement for teacher certification.
Prerequisites: MATH 300, MATH 301.

MATH 464WI History Of Mathematics Credits: 3
Topics in the History of Mathematics from Babylonian times through the invention and consolidation of Calculus, with some modern subjects as time permits. The course will emphasize proofs, ideas, and arguments as given in original sources (in translation) from around the world and throughout history. In this writing intensive course, one or two term papers, in addition to several short essays and historical proof explications are required.
A field trip will be taken to the Linda Hall Library Rare Book Room. This course is of special interest to secondary mathematics teachers as well as mathematics majors.
Prerequisites: MATH 301, RooWriter.

MATH 469 Mathematical Modeling Credits: 3
This course introduces analytical and numerical techniques for modeling and analysis of real-world problems in areas such as economics, engineering, biology and physics. It is designed for students with basic knowledge of linear algebra and differential equations. Interdisciplinary modeling projects are the integral part of this course.
Prerequisites: MATH 300 (or COMP-SCI 393) and MATH 345 (or MEC-ENGR 272).

MATH 490 Special Topics Credits: 1-3
Selected topics in various fields of mathematics. May be repeated for credit when the topic varies.

MATH 496 Internship/Practical Training in Mathematics or Statistics Credits: 1-3
This course provides an internship or other practical training arrangement using mathematics or statistics in an industrial, academic or other professional setting. Department approval of internship experience or practical experience required. Repeatable with up to a combined 3 credits toward the major.
Prerequisites: MATH 250.

MATH 5509 General Algebra I Credits: 3
Groups, rings, modules, homology, fields and Galois theory, valuations, matrices, and multilinear algebra. Continued in MATH 5519.
Prerequisites: MATH 410, MATH 420.

MATH 5510 Complex Variables I Credits: 3
The group of linear fractional transformations, complex integration, Cauchy's theorem, the maximum modulus theorem, analytic continuation, Riemann surfaces. Continued in MATH 5520.
Prerequisites: MATH 402, MATH 407.

MATH 5513 Real Variables I Credits: 3
Prerequisites: MATH 402, MATH 412.

MATH 5514 Mathematics for Secondary Teachers: Algebra and Analysis Credits: 3
Designed for secondary-school teachers. Examine high school mathematics from a higher point of view. Real and complex numbers, functions, algebraic structures of equations, integers and polynomials, number system structures; analyses of alternate approaches, extensions and applications of mathematical ideas, discussion of historical contexts and connections between ideas that may have been studied separately in different courses, relationships of ideas studied in secondary-school to those students may encounter in later study. When taken for graduate credit as Math 5514, an extra project is required.
Prerequisites: MATH 300.
MATH 5517 Matrix Theory I Credits: 3
Unitary matrices, normal matrices, Jordan canonical form, nonnegative matrices and their applications, the symmetric eigenvalue problem.
**Prerequisites:** MATH 420.

MATH 5519 General Algebra II Credits: 3
**Prerequisites:** MATH 5509.

MATH 5520 Complex Variables II Credits: 3
**Prerequisites:** MATH 5510.

MATH 5521 Differential Equations Credits: 3
This course offers an introduction to the qualitative theory and applications of ordinary differential equations (ODE). The presentation of the course will be a blend of fundamental theory and examples. The basic results will be proved rigorously and more advanced results will be only illustrated by examples that demonstrate when and how they may be applied.
**Prerequisites:** MATH 345, MATH 412, MATH 420.

MATH 5523 Real Variables II Credits: 3
**Prerequisites:** MATH 5513.

MATH 5524 Mathematics for Secondary Teachers: Geometry Credits: 3
Designed for secondary-school teachers. Examine high school mathematics from a higher point of view. Congruence, distance and similarity, trigonometry, area and volume, axiomatics and Euclidean geometry; analyses of alternate approaches, extensions, and applications of mathematical ideas, discussion of historical contexts and connections between ideas that may have been studied separately in different courses, relationships of ideas studied in secondary-school to those students may encounter in later study. When taken for graduate credit as Math 5524, an extra project is required.
**Prerequisites:** MATH 300, MATH 301.

MATH 5527 Matrix Theory II Credits: 3
**Prerequisites:** MATH 5517.

MATH 5532 Advanced Numerical Analysis I Credits: 3
Error Analysis, Solving Systems of Linear Equations, Solutions of Nonlinear Equations, the Least-Squares Problems, and Approximating functions. Continued in MATH 5542.
**Prerequisites:** MATH 402, MATH 420.

MATH 5542 Advanced Numerical Analysis II Credits: 3
**Prerequisites:** MATH 5532.

MATH 5545 Mathematical Methods In Science And Engineering Credits: 3
This course offers applied linear algebra and Fourier analysis which are indispensable tools in science and engineering. It is designed for beginning graduate students with moderate background in linear algebra and real analysis. Many of the results that are presented in the course will be proved rigorously from mathematical point of view.
**Prerequisites:** MATH 402, MATH 406, and MATH 420.

MATH 5557 Functional Analysis Credits: 3
Hilbert spaces, linear operators, compact operators, Banach spaces, the Hahn-Banach theorem, the open mapping and closed graph theorems, the principle of uniform boundedness, locally convex spaces.
**Prerequisites:** MATH 402 and MATH 420.

MATH 5575 Stochastic Calculus for Finance Credits: 3
This course presents the basic idea and theory of stochastic calculus with the focus on the applications to finance. Topics include Brownian motion, Ito integral, Ito formula, Black-Scholes equation and formula, risk-neutral pricing, connections with partial differential equations, exotic options, American derivative securities, and term structure models for interest rates.
**Prerequisites:** MATH 402 and STAT 436.

MATH 5590 Special Topics Credits: 1-3
Selected topics in various fields of mathematics. May be repeated for credit when the topic varies.

MATH 5699 Research And Thesis Credits: 1-16
Doctoral dissertation.

MATH 5899 Required Graduate Enrollment Credit: 1
Statistics Courses

STAT 235 Elementary Statistics Credits: 3
An introduction to descriptive and inferential statistics. Organization and presentation of data, averages and variations, elementary probability, random variables, special discrete distributions, normal distributions, sampling distributions, point estimation, confidence intervals, and hypothesis testing.
Prerequisites: MATH 110 (C- or higher), or ALEKS assessment score of 61% or higher.

STAT 436 Introduction To Mathematical Statistics I Credits: 3
Sample space, conditional probability, random variables, probability distribution functions and probability densities; transformations of random variables, mathematical expectation, conditional distributions and expectations, laws of large numbers and limit theorems, applications.
Prerequisites: MATH 250.

STAT 441 Introduction To Mathematical Statistics II Credits: 3
Sampling Distributions; point estimation; internal estimation; hypothesis testing; analysis of variance; nonparametric methods; statistical software applications; topics in Applied Statistics.
Prerequisites: STAT 436.

STAT 496 Internship/Practical Training in Mathematics or Statistics Credits: 1-3
This course provides an internship or other practical training arrangement using mathematics or statistics in an industrial, academic or other professional setting. Department approval of internship experience or practical experience required. Repeatable with up to a combined 3 credits toward the major.
Prerequisites: MATH 250.

STAT 5501 Statistical Design Of Experiments Credits: 3
This course is designed to present a variety of experimental design techniques to students with moderate mathematical and statistical background. The course includes three major components: efficient factorial designs, linear and quadratic process optimization of the location parameter, and variability reduction. Students will be trained to use the SPSS statistical software package.
Prerequisites: STAT 436.

STAT 5537 Mathematical Statistics I Credits: 3
Prerequisites: MATH 402.

STAT 5547 Mathematical Statistics II Credits: 3
Continuation of STAT 5537.

STAT 5551 Applied Statistical Analysis Credits: 3
Methods for analyzing data from experiments and observational studies; design-based and model-based inferences; model assessment; ANOVA; power analysis; SAS procedures.
Prerequisites: STAT 441.

STAT 5561 Time Series Analysis Credits: 3
This course is intended to present the basis knowledge (including models, methods and concepts) of time series analysis to students with a good background in intermediate mathematical statistics. Some elementary knowledge of basic linear regression analysis would be helpful but not necessary. The presentation will be balanced between theory and data analysis, with sufficient theory to understand the basis of methods and a broad variety of models and many real data examples. Case studies will be drawn from business and economics, network traffic and meteorology, and data will be analyzed by students using existing computer programs (SAS, Minitab and R). Students are also expected to understand proper use and limits of time series models.
Prerequisites: STAT 441.

STAT 5565 Regression Analysis Credits: 3
Simple linear regression; multiple linear regression; correlation analysis; model selections; checking assumptions; regression diagnostics; combating multi-collinearity; nonlinear regression.
Prerequisites: STAT 441.

STAT 5572 Multivariate Analysis Credits: 3
Random vectors; multivariate normal distributions; Hotelling's T-square distribution; Wishart distribution; inferences on one mean vector; MANOVA; inferences on covariance matrices; profile analysis.
Prerequisites: MATH 420 and STAT 441.
STAT 5575 Stochastic Calculus for Finance Credits: 3
This course presents the basic idea and theory of stochastic calculus with the focus on the applications to finance. Topics include Brownian motion, Itô integral, Itô formula, Black-Scholes equation and formula, risk-neutral pricing, connections with partial differential equations, exotic options, American derivative securities, and term structure models for interest rates.
**Prerequisites:** MATH 402 and STAT 436.

**Cross Listings:** MATH 5575.

STAT 5576 Probability Credits: 3
Existence and extension of measure, random variable, expectation and its properties, types of convergence, law of large numbers, weak convergence, central limit theorem, and martingale.
**Prerequisites:** STAT 436 and MATH 5513.

STAT 5578 Advanced Mathematical Statistics Credits: 3
Exponential and location families, principles of data reduction, asymptotic distributions, advanced theory of estimation and hypothesis testing.
**Prerequisites:** STAT 5547.

STAT 5588 Theory of Linear Model Credits: 3
This course covers vector space, full rank linear model, general inverse, estimation under linear constraints interval estimation, hypothesis testing, distributions of quadratic forms, general distribution theory, estimability, Gauss-Markov theorem, Best Linear Unbiased Estimation (BLUE), regression on dummy variables, estimation of variance components, Scheffe and Turkey intervals, and non-full rank linear model.
**Prerequisites:** MATH 420, STAT 5537, and STAT 5565.

STAT 5590 Special Topics Credits: 1-3
Selected topics in various fields of mathematics. May be repeated for credit when the topic varies.
Bachelor of Arts: Mathematics and Statistics

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

• Demonstrate competence with the formal language and structure of mathematical proofs by explicating and applying concepts, theorems, or standard proofs, providing and/or analyzing relevant examples and counterexamples, and demonstrating the reasoning skills necessary to construct logically correct and well-structured proofs.

• Demonstrate competence with the formal language and structure of applied mathematical or statistical theory by synthesizing and applying concepts and techniques, demonstrating the reasoning skills necessary to construct logically correct, well-structured mathematical models or statistical analyses, and explaining both how applied mathematical or statistical theory gives rise to commonly used techniques, and the assumptions behind those techniques.

• Demonstrate the ability to recognize and understand the relationship between scientific concepts and their mathematical representations by analyzing quantitative information from such relationships between scientific concepts and their mathematical representations, implementing analytical or numerical techniques and computations for a given task, and demonstrating the ability to carry out those computations.

• Demonstrate qualitative skills, such as the ability to translate real-world problems into mathematical language, choose and apply analytical, statistical, or numerical strategies and techniques, provide exact or approximate solutions or partial solutions to problems as required, and interpret and explain the results and the assumptions behind those results as well as the appropriateness of the techniques chosen.

• Demonstrate the ability to prepare background materials or gather data, write and produce one or more revisions seeking out peer or other reviews, and finally produce a mathematics or statistics long written assignment, a project report including an explanation of how results pertain to the research question, an exposition of mathematics or statistics, or create and give an oral presentation, in all cases tailoring the writing or presentation to a given audience.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Focus B (Satisfied in program requirements below)

Focus C (May be satisfied by the Constitution course requirement below)
Focus Elective (Satisfied in program requirements below)

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

| Total Credits | 21 |

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions."

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) ¹</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) ¹</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) ¹</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) ¹</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits

| 3 |

¹ Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Arts and Humanities Division of CAS ¹</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Science and Math Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Junior/Senior-Level Writing Intensive Course</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language (3rd Semester Level)</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>MATH 110, MATH 116, or any 200-level or above Math/Stat course (Satisfied in program requirements below)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Laboratory Science Experience</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Credits

| 31 |

¹ ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

² This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

Major Requirements

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.
Bachelor of Arts: Mathematics and Statistics

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 120</td>
<td>Precalculus (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td>MATH 210</td>
<td>Calculus I (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 216</td>
<td>Calculus for Biological Sciences</td>
<td></td>
</tr>
<tr>
<td>MATH 220</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 250</td>
<td>Calculus III</td>
<td>4</td>
</tr>
</tbody>
</table>

Select a minimum of 21 hours of coursework in mathematics or statistics at the 300 level or above, including the following: 1

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 300</td>
<td>Linear Algebra I</td>
<td></td>
</tr>
<tr>
<td>MATH 301</td>
<td>On Solid Ground: Sets and Proof</td>
<td></td>
</tr>
<tr>
<td>MATH 402</td>
<td>Advanced Analysis I</td>
<td></td>
</tr>
<tr>
<td>MATH 410</td>
<td>Modern Algebra</td>
<td></td>
</tr>
<tr>
<td>or MATH 420</td>
<td>Linear Algebra II</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 38

1 At least four of the courses at the 300 level or above must be completed in the Department of Mathematics and Statistics at UMKC.

General Electives

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>27</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0 (degree and major)

Total Credit Hours: 120

Suggested Plan of Study

Because of the diversity of acceptable programs available, a four-year plan of study is not suggested. Students are cautioned, however, that certain mathematics courses must be taken in the appropriate sequence. Students should consult with a department undergraduate advisor to plan a program of study.

Tools for Planning and Fulfilling Academic Requirements

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Science in Mathematics and Statistics

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

- Be able to read, write, understand mathematical proofs, and construct mathematical proofs as appropriate.
- Be able to reason with and apply mathematical concepts, principles and methods; analyze and evaluate problems (both theoretical and practical) and plan strategies for their solution.
- Be able to work collaboratively with others on projects requiring mathematical knowledge and input, to function effectively in a professional workplace related to mathematics, or in a graduate program.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I 1</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor II 1</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor III 1</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A 1</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus B (Satisfied in program requirements below)</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>Focus C (May be satisfied by the Constitution requirement below)</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus Elective 1</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
</tbody>
</table>

'Total credits’ in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits: 3

1. Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arts and Humanities Division of CAS</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Science and Math Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course; Satisfied in program requirements below)</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>Laboratory Science Experience</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits: 22

1. ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.
2. This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

Major Requirements

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 120</td>
<td>Precalculus</td>
<td>5</td>
</tr>
<tr>
<td>MATH 210</td>
<td>Calculus I (Focus B )</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 216</td>
<td>Calculus for Biological Sciences</td>
<td></td>
</tr>
<tr>
<td>MATH 220</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 250</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>Select a minimum of 21 hours of coursework in mathematics or statistics at the 300-level or above, including the following:</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>MATH 300</td>
<td>Linear Algebra I</td>
<td></td>
</tr>
</tbody>
</table>
MATH 301  |  On Solid Ground: Sets and Proof  
MATH 402  |  Advanced Analysis I  
MATH 410  |  Modern Algebra  
or MATH 420  |  Linear Algebra II  
MATH 345  |  Ordinary Differential Equations  
or MATH 406  |  Partial Differential Equations  
or MATH 430  |  Numerical Analysis I  
or STAT 436  |  Introduction To Mathematical Statistics I  

Total Credits  |  38

1 At least four of the courses at the 300-level or above must be completed in the Department of Mathematics and Statistics at UMKC.

Math and Science Requirements
The Bachelor of Science degree requires a minimum of 60 hours in math and science coursework. The number of credit hours needed to meet this minimum requirement are listed below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Additional Math/Science Coursework</td>
<td>15</td>
</tr>
</tbody>
</table>

General Electives
Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>18</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0 (degree and major)

Total Credit Hours: 120

Suggested Plan of Study
Because of the diversity of acceptable programs available, a four-year plan of study is not suggested. Students are cautioned, however, that certain mathematics courses must be taken in the appropriate sequence. Students should consult with a department undergraduate advisor to plan a program of study.

Tools for Planning and Fulfilling Academic Requirements
UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student's officially recorded (Office of Registration and Records) and "what if" plans of study. This evaluation is used to certify all graduation requirements.

UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Minor in Mathematics

Student Learning Outcomes

Students graduating from this program will:

• Demonstrate competence with the formal language and structure of mathematical proofs by explicating and applying concepts, theorems, or standard proofs, providing and/or analyzing relevant examples and counterexamples, and demonstrating the reasoning skills necessary to construct logically correct and well-structured proofs.

• Demonstrate competence with the formal language and structure of applied mathematical or statistical theory by synthesizing and applying concepts and techniques, demonstrating the reasoning skills necessary to construct logically correct, well-structured mathematical models or statistical analyses, and explaining both how applied mathematical or statistical theory gives rise to commonly used techniques, and the assumptions behind those techniques.

• Demonstrate the ability to recognize and understand the relationship between scientific concepts and their mathematical representations by analyzing quantitative information from such relationships between scientific concepts and their mathematical representations, implementing analytical or numerical techniques and computations for a given task, and demonstrating the ability to carry out those computations.

• Demonstrate qualitative skills, such as the ability to translate real-world problems into mathematical language, choose and apply analytical, statistical, or numerical strategies and techniques, provide exact or approximate solutions or partial solutions to problems as required, and interpret and explain the results and the assumptions behind those results as well as the appropriateness of the techniques chosen.

• Demonstrate the ability to prepare background materials or gather data, write and produce one or more revisions seeking out peer or other reviews, and finally produce a mathematics or statistics long written assignment, a project report including an explanation of how results pertain to the research question, an exposition of mathematics or statistics, or create and give an oral presentation, in all cases tailoring the writing or presentation to a given audience.

Program Requirements

A minor in mathematics may be obtained by completing a total of 19-20 hours of mathematics courses, including:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 210</td>
<td>Calculus I (Focus B) ^GE</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 216</td>
<td>Calculus for Biological Sciences</td>
<td></td>
</tr>
<tr>
<td>or MATH 266</td>
<td>Accelerated Calculus I</td>
<td></td>
</tr>
<tr>
<td>MATH 220</td>
<td>Calculus II</td>
<td>3-4</td>
</tr>
<tr>
<td>or MATH 268</td>
<td>Accelerated Calculus II</td>
<td></td>
</tr>
<tr>
<td>One MATH/STAT course at 200-level or above</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Three MATH/STAT courses at the 300-level or above in the department</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>19-20</td>
</tr>
</tbody>
</table>

GE See http://www.umkc.edu/core/courses/
Teacher Certification in Mathematics

Student Learning Outcomes

Students graduating with a B.A. or B.S. degree in Mathematics and Statistics are expected to:

• Be able to read, write, understand mathematical proofs, and construct mathematical proofs as appropriate.
• Be able to reason with and apply mathematical concepts, principles and methods; analyze and evaluate problems (both theoretical and practical) and plan strategies for their solution.
• Be able to work collaboratively with others on projects requiring mathematical knowledge and input, to function effectively in a professional workplace related to mathematics, or in a graduate program.

Program Requirements

Certification as a middle school (grades 5-9) or secondary school (grades 9-12) Mathematics teacher in either Kansas or Missouri requires that a student complete specific requirements both in Mathematics and in the School of Education. A separate application for teacher education is required. For further information, consult the School of Education (p. 1018) section of this catalog or contact the Education Student Services Office at (816) 235-2234.
Master of Science in Mathematics

Student Learning Outcomes

Students graduating from this program will:

• apply logical reasoning skills towards answering theoretical and conceptual questions of the core areas of mathematics, meaning students will be able to explicate concepts, theorems, and standard proofs, provide and/or analyze relevant examples and counterexamples, and construct logically correct and mathematically rigorous proofs.

• demonstrate quantitative skills by implementing analytical or numerical techniques for a given task, as well as initiating concrete computations and approximations, and demonstrate the ability to carry them out.

• demonstrate qualitative skills, such as the ability to translate real-world problems into mathematical formulations, apply analytical or numerical strategies and techniques, provide exact or approximate solutions or partial solutions to problems as appropriate, and interpret and explain the results as well as the assumptions behind those results.

• demonstrate the ability to prepare background materials or gather data, write and produce one or more revisions seeking out peer or other reviews, and finally write a mathematics or statistics project report, an exposition of mathematics, or create and give an oral presentation tailored to a given audience.

Degree Requirements

At least 30 credit hours of approved coursework in the department are required. At least 18 credit hours (of the 30 minimum total credits) must be at the 5500 level in the department. Courses numbered below 400 do not carry graduate credit for mathematics and statistics graduate students. Courses numbered at the 400 level will NOT be credited to the master's degree if they were previously taken from UMKC or are equivalent (content wise) to courses previously taken from any other accredited colleges/universities for the undergraduate degree. Independent Reading courses (MATH 490 or MATH 5590 or STAT 5590) are not counted toward the degree unless approved for inclusion in the plan of study of the student prior to taking the course. Normally, more than 3 credit hours of Independent Reading will not be counted toward the master's degree.

In addition to the minimum 30 credit hours of course work, master's degree seeking students are required to attend five Departmental Graduate Seminars per semester.

Master's degree candidates are required to submit a Master Plan of Study Form prior to the completion of 15 credit hours of course work.

All master's degree candidates must take six core courses (all at the 5500 level) as follows:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 5509</td>
<td>General Algebra I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5513</td>
<td>Real Variables I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5532</td>
<td>Advanced Numerical Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5510</td>
<td>Complex Variables I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5521</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5545</td>
<td>Mathematical Methods In Science And Engineering</td>
<td>3</td>
</tr>
</tbody>
</table>

The remaining 12 credit hours can be fulfilled by choosing from the 400 or 5500 level courses offered by the department. For more details about the courses offered, please refer to the departmental Web site (http://cas.umkc.edu/math).

Students have two options for completing the degree: with thesis or without thesis. The thesis option allows students to apply up to 6 Research and Thesis (MATH 5699 or STAT 5699) credit hours towards the 12 elective credit hours. Below are the additional requirements specific to each option.

For students completing a MS degree without thesis: In the last semester before graduation, the student will make an oral presentation, under the supervision of one or two faculty members. This talk will be assessed by an advisory committee.

For students completing a MS degree with thesis: Students are required to write a Master's thesis under the supervision of a graduate faculty member, give an oral presentation, and defend it before an examining committee. The examining committee is composed of a supervisor (Chair of the examining committee) and at least two other faculty members. All members of the committee need to be graduate or doctoral faculty in the department. The process of completing the thesis requirement is as follows:

• The student is required to submit a two-page proposal to the supervisory committee by the end of the 1st year.

• The student is required to provide a complete thesis to each of the examining committee members before the oral defense.

• Upon receipt of the recommendations from the examining committee members (“Thesis-Pre-Oral-Defense-Form” at http://sgs.umkc.edu/current-students/thesis-dissertation-guidelines/), the oral defense will be scheduled.
• After a successful oral defense followed by required revisions, the examining committee chair will forward the Master’s thesis along with other forms (“Thesis-Final-Evaluation-form” and “Preliminary-Approval-by-Supervisory-Committee-Chair-1” found at http://sgs.umkc.edu/current-students/thesis-dissertation-guidelines/) to the School of Graduate Studies.

A student pursuing the thesis option can enroll in Research and Thesis credit hours (MATH 5699 or STAT 5699). Such classes will be counted towards the degree only if they are approved for the plan of study of the student prior to taking the class. No more than 6 credit hours combined of approved Research and Thesis and Independent Reading can be counted towards the degree.

Admission requirements

• Applicants need to hold a bachelor’s degree from an accredited college or university, with a satisfactory GPA.
• If the applicant’s degree is not in Mathematics or Statistics (or equivalent), then the applicant must have taken Calculus I, II, and III and at least three other Mathematics or Statistics classes beyond Calculus III, with satisfactory grades.
• Applicants need to include with their application materials a valid GRE general test score and a one page narrative outlining educational goals. Optional letters of recommendation should be sent directly to the department Principal Graduate Advisor.
• International applicants need to satisfy the requirements of the International Students Affairs Office (http://www.umkc.edu/isao), including those on TOEFL or IELTS scores.

Applicants who want to apply for a GTA position in the department need to fill out the GTA application form (available on the department web site (http://cas.umkc.edu/mathematics)) and have three letters of recommendation, accompanied by the “Evaluation of fitness for graduate studies” form sent directly to the department Principal Graduate Advisor.
Master of Science in Statistics

Student Learning Outcomes

Students graduating from this program will:

• demonstrate an understanding of basic statistical theory by being able to synthesize statistical concepts, assumptions, and theorems, and be able to explain how such theory gives rise to the common techniques of statistical analysis.
• will demonstrate the ability to communicate the results of a statistical analysis to a non-statistician both in writing and verbally, and to explain how these results pertain to the research question at hand.
• will exhibit the ability to decide on a statistical technique to apply to a given situation, demonstrate the ability to carry out that technique, either analytically or through the use of statistical software, and demonstrate the ability to assess the appropriateness of the technique that was applied.

Degree Requirements

At least 30 credit hours of approved coursework in the department are required. At least 18 credit hours (of the 30 minimum total credits) must be at the 5500 level in the department. Courses numbered below 400 do not carry graduate credit for mathematics and statistics graduate students. Courses numbered at the 400 level will NOT be credited to the master's degree if they were previously taken from UMKC or are equivalent (content wise) to courses previously taken from any other accredited colleges/universities for the undergraduate degree. Independent Reading courses (MATH 490 or MATH 5590 or STAT 5590) are not counted toward the degree unless approved for inclusion in the plan of study of the student prior to taking the course. Normally, more than 3 credit hours of Independent Reading will not be counted toward the master's degree.

In addition to the minimum 30 credit hours of course work, master's degree seeking students are required to attend five Departmental Graduate Seminars per semester.

Master’s degree candidates are required to submit a Master Plan of Study Form prior to the completion of 15 credit hours of course work.

All master's degree candidates must take six core courses (all at the 5500 level) as follows:

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<tr>
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<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 5501</td>
<td>Statistical Design Of Experiments</td>
<td>3</td>
</tr>
<tr>
<td>STAT 5537</td>
<td>Mathematical Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>STAT 5551</td>
<td>Applied Statistical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>STAT 5547</td>
<td>Mathematical Statistics II</td>
<td>3</td>
</tr>
<tr>
<td>STAT 5565</td>
<td>Regression Analysis</td>
<td>3</td>
</tr>
<tr>
<td>STAT 5572</td>
<td>Multivariate Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

The remaining 12 credit hours can be fulfilled by choosing from the 400 or 5500 level courses offered by the department. For more details about the courses offered, please refer to the departmental Web site (http://cas.umkc.edu/math).

Students have two options for completing the degree: with thesis or without thesis. The thesis option allows students to apply up to 6 Research and Thesis (MATH 5699 or STAT 5699) credit hours towards the 12 elective credit hours. Below are the additional requirements specific to each option.

For students completing a MS degree without thesis: In the last semester before graduation, the student will make an oral presentation, under the supervision of one or two faculty members. This talk will be assessed by an advisory committee.

For students completing a MS degree with thesis: Students are required to write a Master's thesis under the supervision of a graduate faculty member, give an oral presentation, and defend it before an examining committee. The examining committee is composed of a supervisor (Chair of the examining committee) and at least two other faculty members. All members of the committee need to be graduate or doctoral faculty in the department. The process of completing the thesis requirement is as follows:

• The student is required to submit a two-page proposal to the supervisory committee by the end of the 1st year.
• The student is required to provide a complete thesis to each of the examining committee members before the oral defense.
• Upon receipt of the recommendations from the examining committee members ("Thesis-Pre-Oral-Defense-Form" at http://sgs.umkc.edu/current-students/thesis-dissertation-guidelines/), the oral defense will be scheduled.
• After a successful oral defense followed by required revisions, the examining committee chair will forward the Master's thesis along with other forms ("Thesis-Final-Evaluation-form" and "Preliminary-Approval-by-Supervisory-Committee-Chair-1" found at http://sgs.umkc.edu/current-students/thesis-dissertation-guidelines/) to the School of Graduate Studies.

A student pursuing the thesis option can enroll in Research and Thesis credit hours (MATH 5699 or STAT 5699). Such classes will be counted towards the degree only if they are approved for the plan of study of the student prior to taking the class. No more than 6 credit hours combined of approved Research and Thesis and Independent Reading can be counted towards the degree.
Admission requirements

- Applicants need to hold a bachelors's degree from an accredited college or university, with a satisfactory GPA.
- If the applicant’s degree is not in Mathematics or Statistics (or equivalent), then the applicant must have taken Calculus I, II, and III and at least three other Mathematics or Statistics classes beyond Calculus III, with satisfactory grades.
- Applicants need to include with their application materials a valid GRE general test score and a one page narrative outlining educational goals. Optional letters of recommendation should be sent directly to the department Principal Graduate Advisor.
- International applicants need to satisfy the requirements of the International Students Affairs Office (http://www.umkc.edu/isao), including those on TOEFL or IELTS scores.

Applicants who want to apply for a GTA position in the department need to fill out the GTA application form (available on the department web site (http://cas.umkc.edu/mathematics)) and have three letters of recommendation, accompanied by the “Evaluation of fitness for graduate studies” form sent directly to the department Principal Graduate Advisor.
Bachelor of Science: Mathematics and Statistics / Master of Science: Mathematics - Dual Degree

This program offers students an opportunity to meet the full requirements of the BS and MS in a shorter time period than the separate degree programs. The students may complete a Bachelor of Science degree in Mathematics and Statistics in four years and the Master's degree in Mathematics the fifth year.

Student Learning Outcomes

Students graduating from this program will:

• read, write, understand mathematical proofs, and construct mathematical proofs as appropriate.
• reason with and apply mathematical concepts, principles and methods; analyze and evaluate problems (both theoretical and practical) and plan strategies for their solution.
• work collaboratively with others on projects requiring mathematical knowledge and input, to function effectively in a professional workplace related to mathematics, or in a graduate program.
• apply logical reasoning skills towards answering theoretical and conceptual questions of the core areas of mathematics, meaning students will be able to explicate concepts, theorems, and standard proofs, provide and/or analyze relevant examples and counterexamples, and construct logically correct and mathematically rigorous proofs.
• demonstrate quantitative skills by implementing analytical or numerical techniques for a given task, as well as initiating concrete computations and approximations, and demonstrate the ability to carry them out.
• demonstrate qualitative skills, such as the ability to translate real-world problems into mathematical formulations, apply analytical or numerical strategies and techniques, provide exact or approximate solutions or partial solutions to problems as appropriate, and interpret and explain the results as well as the assumptions behind those results.
• demonstrate the ability to prepare background materials or gather data, write and produce one or more revisions seeking out peer or other reviews, and finally write a mathematics or statistics project report, an exposition of mathematics, or create and give an oral presentation tailored to a given audience.

Admission Requirements

1. The applicant must be a UMKC undergraduate student who has completed a minimum of 60 cumulative credit hours.
2. The applicant should complete the BS/MS application (http://cas2.umkc.edu/Mathematics/docs/MSBS%20Math%20Dept%20Application%20Form%20rev.doc) form and submit it to both the undergraduate (baniyaghoubm@umkc.edu) and graduate advisors (segal@umkc.edu).
3. The applicant must satisfactorily complete the following courses:
   a. MATH 300 Linear Algebra I
   b. MATH 301 On Solid Ground: Sets and Proof, or any 400-level class that has MATH 301 as a prerequisite. For instance, MATH 410, MATH 420, or MATH 402
   c. MATH 345 Ordinary Differential Equations
4. A minimum overall GPA of 3.0 is required.
5. A minimum GPA of 3.2 in Math/Stat courses is required

B.S. Degree Requirements (total of 33 credit hours)

As listed below, there are 24 credit hours required undergraduate courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 210</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 220</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 250</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 300</td>
<td>Linear Algebra I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 345</td>
<td>Ordinary Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>or select one of the following:</td>
<td></td>
</tr>
<tr>
<td>MATH 406</td>
<td>Partial Differential Equations</td>
<td></td>
</tr>
<tr>
<td>MATH 430</td>
<td>Numerical Analysis I</td>
<td></td>
</tr>
<tr>
<td>STAT 436</td>
<td>Introduction To Mathematical Statistics I</td>
<td></td>
</tr>
<tr>
<td>MATH 402</td>
<td>Advanced Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 410</td>
<td>Modern Algebra</td>
<td>3</td>
</tr>
</tbody>
</table>
The student should also take at least 9 credit hours of Math or Stat elective courses at the 400 level or above.

**M.S. Degree Requirements (total of 30 credit hours)**

The following core courses are required for the completion of the M.S. degree:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 5509</td>
<td>General Algebra I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5510</td>
<td>Complex Variables I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5513</td>
<td>Real Variables I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5521</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5522</td>
<td>Advanced Numerical Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5545</td>
<td>Mathematical Methods In Science And Engineering</td>
<td>3</td>
</tr>
</tbody>
</table>

Also a total of 12 credit hours of Math of Stat elective courses at the 400 level or above must completed satisfactorily.

**B.S./M.S. Degree Overlap (up to 9 credit hours)**

Up to 9 credit hours of 400-level Math or Stat courses in the graduate degree can overlap with the courses taken towards satisfying the requirements for the undergraduate degree.
Bachelor of Science: Mathematics and Statistics / Master of Science: Statistics - Dual Degree

This program offers students an opportunity to meet the full requirements of the BS and MS in a shorter time period than the separate degree programs. The students may complete a Bachelor of Science degree in Mathematics and Statistics in four years and the Master's degree in Statistics the fifth year.

Student Learning Outcomes

Students graduating from this program will:

• read, write, understand mathematical proofs, and construct mathematical proofs as appropriate.

• reason with and apply mathematical concepts, principles and methods; analyze and evaluate problems (both theoretical and practical) and plan strategies for their solution.

• work collaboratively with others on projects requiring mathematical knowledge and input, to function effectively in a professional workplace related to mathematics, or in a graduate program.

• demonstrate an understanding of basic statistical theory by being able to synthesize statistical concepts, assumptions, and theorems, and be able to explain how such theory gives rise to the common techniques of statistical analysis.

• will demonstrate the ability to communicate the results of a statistical analysis to a non-statistician both in writing and verbally, and to explain how these results pertain to the research question at hand.

• will exhibit the ability to decide on a statistical technique to apply to a given situation, demonstrate the ability to carry out that technique, either analytically or through the use of statistical software, and demonstrate the ability to assess the appropriateness of the technique that was applied.

Admission Requirements

1. The applicant must be a UMKC undergraduate student who has completed a minimum of 60 cumulative credit hours.

2. The applicant should complete the BS/MS application (http://cas2.umkc.edu/Mathematics/docs/MSBS%20Math%20Dept%20Application%20Form%20rev.doc) form and submit it to both the undergraduate (baniyaghoubm@umkc.edu) and graduate advisors (segal@umkc.edu).

3. The applicant must satisfactorily complete the following courses:
   a. MATH 300 Linear Algebra I
   b. MATH 301 On Solid Ground: Sets and Proof, or any 400-level class that has MATH 301 as a prerequisite. For instance, MATH 410, MATH 420, or MATH 402
   c. STAT 436 Introduction To Mathematical Statistics I

4. A minimum overall GPA of 3.0 is required.

5. A minimum GPA of 3.2 in Math/Stat courses is required.

B.S. Degree Requirements (total of 33 credit hours)

As listed below, there are 24 credit hours required undergraduate courses.

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<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 300</td>
<td>Linear Algebra I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 402</td>
<td>Advanced Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 410</td>
<td>Modern Algebra</td>
<td>3</td>
</tr>
<tr>
<td>STAT 441</td>
<td>Introduction To Mathematical Statistics II</td>
<td>3</td>
</tr>
</tbody>
</table>

The student should also take at least 9 credit hours of Math or Stat elective courses at the 400 level or above.

M.S. Degree Requirements (total of 30 credit hours)

The following core courses are required for the completion of the M.S. degree:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 5501</td>
<td>Statistical Design Of Experiments</td>
<td>3</td>
</tr>
<tr>
<td>STAT 5537</td>
<td>Mathematical Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>STAT 5547</td>
<td>Mathematical Statistics II</td>
<td>3</td>
</tr>
</tbody>
</table>
Also a total of 12 credit hours of Math of Stat elective courses at the 400 level or above must completed satisfactorily.

**B.S./M.S. Degree Overlap (up to 9 credit hours)**

Up to 9 credit hours of 400-level Math or Stat courses in the graduate degree can overlap with the courses taken towards satisfying the requirements for the undergraduate degree.
Interdisciplinary Ph.D. in Mathematics

Student Learning Objectives

Students are expected to:

• Have a broad understanding of several branches of mathematics and how they are related. Be able to read and/or listen to documents and discussions having mathematical content, with an appropriate level of understanding, and exhibit a high level of mathematical literacy.

• Be able to clearly articulate mathematical information accurately and effectively, using a form, structure and style that suits the purpose, including written and face-to-face presentation.

• Be able to independently acquire further mathematical knowledge without guidance.

• Be prepared for entry into professional schools, doctoral programs, or the job market.

Degree Requirements

UMKC offers an Interdisciplinary Ph.D. program. Students desiring to study at the doctoral level in mathematics must apply to the School of Graduate Studies. Detailed information on the general and discipline-specific requirements (p. 1281) appears in the School of Graduate Studies (p. 1185) section of this catalog. For more details visit the department Web site: http://cas.umkc.edu/math.
Medieval and Early Modern Studies

Program Director:
Dr. Kathy Krause
Professor of French
Dept. of Foreign Languages and Literatures
krausek@umkc.edu

Graduate Certificate in Medieval and Early Modern Studies (MEMS)
The Graduate Certificate in Medieval and Early Modern Studies (MEMS) (p. 466) offers students an interdisciplinary opportunity to focus their studies in early literatures, history, and culture (ca. 500-1500). The certificate not only benefits graduate students pursuing MA, MALS, MFA, and Interdisciplinary Ph.D. degrees in traditional fields, such as Art History, English, History, and Theatre but also provides an opportunity for education professionals to pursue further study in the pre-modern period as professional development and enhancement.

Certificate Program Requirements (p. 466)

Minor in Medieval and Early Modern Studies (MEMS)
Undergraduate students in any major in the College of Arts and Sciences may seek an interdisciplinary minor in Medieval and Early Modern Studies (MEMS). The minor offers students an interdisciplinary opportunity to focus their studies in early literatures, history, and culture (ca. 500-1500). The minor may be integrated with the Bachelor of Liberal Arts (BLA) degree. Students complete an 18-credit program of study, with upper-level courses from at least two disciplines. Completion of the Medieval and Early Modern Studies minor is recorded on the student's transcript. Students must declare their intention to pursue the minor on the “Declaration of Major” form and should meet with the MEMS program director. No more than 6 credits may be transferred from another institution.

For a list of classes fulfilling the Medieval and Early Modern Studies Minor requirements each semester, please consult the MEMS program director. Courses in Medieval and Early Modern Studies are found primarily in College of Arts and Sciences, but there are also courses offered in the Conservatory of Music and Dance. Courses that fulfill the requirements of the minor are those which focus on the medieval and early modern periods, as well as directed readings courses or independent studies courses with affiliated faculty. Special topics courses and similar offerings can be approved on a case-by-case basis by the program director.

Minor Program Requirements (p. 468)
Graduate Certificate in Medieval and Early Modern Studies

Graduate Certificate in Medieval and Early Modern Studies (MEMS)

The Graduate Certificate in Medieval and Early Modern Studies (MEMS) offers students an interdisciplinary opportunity to focus their studies in early literatures, history, and culture (ca. 500-1500). The certificate not only benefits graduate students pursuing MA, MALS, MFA, and Interdisciplinary Ph.D. degrees in traditional fields, such as Art History, English, History, and Theatre but also provides an opportunity for education professionals to pursue further study in the pre-modern period as professional development and enhancement.

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGLISH 5564/HISTORY 5583GR</td>
<td>Medieval Methods &amp; Paleography</td>
<td>3</td>
</tr>
<tr>
<td>MALS Capstone Experience or Thesis</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Four three-hour graduate medieval or early modern courses</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

1. The Capstone Experience or Thesis could be a written academic thesis or another kind of project, as developed by the student and his/her committee.
2. The four elective courses must be distributed between at least two academic disciplines (e.g. English and History) and must include at least one three-credit medieval course and one three-credit early modern course.

Strongly recommended: Two Years College-level Proficiency in Latin

Admission Process

Applicants must be admitted to UMKC’s School of Graduate Studies and by a graduate program in the College of Arts and Sciences. Application materials can be obtained from SGS.

Contact

Dr. Virginia Blanton, Department of English blantons@umkc.edu (816) 235-2766
Dr. Linda E. Mitchell, Department of History mitchelli@umkc.edu (816)235-2734

List of Courses for the Graduate Certificate in Medieval and Early Modern Studies

Courses in Medieval and Early Modern Studies are found primarily in the departments of the College of Arts and Sciences, but there is also an opportunity to collaborate with faculty members at the Conservatory of Music and Dance. The courses that would fulfill the requirements of the graduate certificate include graduate colloquia focusing on the pre-modern period, undergraduate/graduate hybrid courses (at the 300-400 level for undergrads and 5500 for graduates), special topics courses, directed readings courses with affiliated faculty, and independent studies courses with affiliated faculty. Courses appropriate to the program will be approved on a case-by-case basis.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>ART-HIST 5570</td>
<td>Seminar In Renaissance Art</td>
<td>3</td>
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<tr>
<td>ART-HIST 5575</td>
<td>Seminar In Baroque Art</td>
<td>3</td>
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<td>ENGLISH 5503</td>
<td>Old English</td>
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<tr>
<td>ENGLISH 5512</td>
<td>Chaucer</td>
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<tr>
<td>ENGLISH 5513</td>
<td>Renaissance Literature I</td>
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<tr>
<td>ENGLISH 5514</td>
<td>Milton</td>
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<td>ENGLISH 5515</td>
<td>Restoration And Early 18th-Century British Literature</td>
<td>3</td>
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<td>ENGLISH 5522</td>
<td>Medieval Literature</td>
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<td>ENGLISH 5523</td>
<td>Renaissance Literature II</td>
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<td>ENGLISH 5531</td>
<td>Late 18th-Century British Literature</td>
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<tr>
<td>ENGLISH 5533</td>
<td>Histories Of Writing, Reading, And Publishing</td>
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<tr>
<td>ENGLISH 5550/5555</td>
<td>Graduate Seminar (where appropriate)</td>
<td>3</td>
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<tr>
<td>ENGLISH 5551</td>
<td>Shakespeare Comedies And Histories</td>
<td>3</td>
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<td>ENGLISH 5552</td>
<td>Early English Drama</td>
<td>3</td>
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<tr>
<td>ENGLISH 5561</td>
<td>Shakespeare:Tragedies And Romances</td>
<td>3</td>
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<td>ENGLISH 5562</td>
<td>Restoration And 18th-Century Drama</td>
<td>3</td>
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<tr>
<td>ENGLISH 5564/HISTORY 5583GR</td>
<td>Medieval Methods &amp; Paleography</td>
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<td>ENGLISH 5566CF/FRENCH 5500CF</td>
<td>Courts And Culture In The Middle Ages</td>
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<td>FRENCH 5512</td>
<td>17th-century French Literature</td>
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<td>FRENCH 5513</td>
<td>18th-century French Literature</td>
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<td>FRENCH 5514</td>
<td>Medieval Literature</td>
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<td>FRENCH 5517</td>
<td>16th-century French Literature</td>
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<td>FRENCH 5520</td>
<td>Non-Dramatic 17th-century French Literature</td>
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<td>FRENCH 5540</td>
<td>Medieval Romance</td>
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<td>FRENCH 5544</td>
<td>Renaissance Poetry</td>
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<td>FRENCH 5545</td>
<td>Epistolarity and the Novel</td>
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<td>FRENCH 5546</td>
<td>17th-century French Drama</td>
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<td>FRENCH 5552</td>
<td>Medieval Poetry</td>
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<td>FRENCH 5554</td>
<td>The Intellectual Origins of the French Revolution</td>
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<td>HISTORY 5502</td>
<td>America,1000-1763. The Formative Era</td>
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<td>HISTORY 5506A/RELIG-ST 5506</td>
<td>History of Christianity to Middle Ages</td>
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<td>The History of Christianity from the Middle Ages to the Present</td>
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<td>Medieval Civilization I</td>
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<td>Medieval Women &amp; Children</td>
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<td>HISTORY 5512B</td>
<td>The Black Death And Late Medieval Society</td>
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<td>HISTORY 5513</td>
<td>Renaissance</td>
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<td>HISTORY 5514</td>
<td>Reformation</td>
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<td>HISTORY 5515B</td>
<td>17Th And 18Th Century European History</td>
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<td>HISTORY 5525R</td>
<td>European Criminal Justice History, 500-1900</td>
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<td>HISTORY 5526R</td>
<td>The Scientific Revolution 1500-1700</td>
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<td>HISTORY 5528B</td>
<td>Women &amp; Medicine:Patients &amp; Practitioners From Antiquity-Present</td>
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<td>HISTORY 5531</td>
<td>Medieval England, 1066 to 1485</td>
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<td>HISTORY 5532</td>
<td>Tudor-England, 1485-1688</td>
<td>3</td>
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<td>HISTORY 5544</td>
<td>Islam &amp; the Arabs: The Formative Period</td>
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<td>HISTORY 5562J</td>
<td>Japanese Civilization</td>
<td>3</td>
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<tr>
<td>HISTORY 5576R</td>
<td>Medieval Jewish History</td>
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<tr>
<td>HISTORY 558X</td>
<td>Colloquia in History (when appropriate)</td>
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<tr>
<td>RELIG-ST 5502</td>
<td>Religion &amp; Colonialism in Latin America</td>
<td>3</td>
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<td>SPANISH 5516</td>
<td>Medieval Spanish Literature</td>
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<td>SPANISH 5519/5520</td>
<td>Federico Garcia Lorca</td>
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<td>SPANISH 5527</td>
<td>Pre-Columbian and Spanish Colonial Literature</td>
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<td>SPANISH 5533</td>
<td>Cervantes’ Exemplary Novels</td>
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<td>SPANISH 5534</td>
<td>The Picaresque Novel</td>
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<td>THEATRE 5512R</td>
<td>History Of The English Stage I</td>
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<td>CONSVTY 5547</td>
<td>Opera History</td>
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<td>Music of the Medieval Era</td>
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<td>Music Of The Renaissance</td>
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<td>CONSVTY 5556</td>
<td>Music of the Baroque Era</td>
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<tr>
<td>CONSVTY 5557</td>
<td>Music of the Classical Era</td>
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Minor in Medieval and Early Modern Studies

Undergraduate students in any major may seek an interdisciplinary minor in Medieval and Early Modern Studies (MEMS). The minor offers students an interdisciplinary opportunity to focus their studies in early literatures, history, and culture (ca. 500-1500). The minor may be integrated with the Bachelor of Liberal Arts (BLA) degree. Students complete an 18-credit program of study, with upper-level courses from at least two disciplines. Completion of the Medieval and Early Modern Studies minor is recorded on the student’s transcript. Students must declare their intention to pursue the minor on the “Declaration of Major” form and should meet with the MEMS program director. No more than 6 credits may be transferred from another institution.

For a list of classes fulfilling the Medieval and Early Modern Studies Minor requirements each semester, please consult the MEMS program director. Courses in Medieval and Early Modern Studies are found primarily in College of Arts and Sciences, but there are also courses offered in the Conservatory of Music and Dance. Courses that fulfill the requirements of the minor are those which focus on the medieval and early modern periods, as well as directed readings courses or independent studies courses with affiliated faculty. Special topics courses and similar offerings can be approved on a case-by-case basis by the program director.

Student Learning Outcomes

Students graduating from this program will:

• acquire knowledge about the multidisciplinary nature and interdisciplinary methods of Medieval and Early Modern Studies scholarship.
• acquire knowledge about the historical, cultural, social, political and economic contexts of these periods.
• acquire knowledge about issues of diversity, including race, class, and gender expression in these periods.
• have the skills to understand and utilize the theories and methods of the various disciplines that contribute to Medieval and Early Modern Studies.
• have the skills to think critically across multiple disciplines.
• have the skills to identify and articulate scholarly problems based on interaction with primary source materials. (Students who elect to take Latin or other vernacular languages of the medieval period will demonstrate further proficiency working with primary source materials in the original languages.)
• have the skills to communicate the results of their work effectively to others in expository prose, oral presentations, or electronic media such as films or web pages.

Requirements:
Total of at least 18 credits at 300-400 level from approved courses, distributed as follows:

• At least 6 credits from at least two disciplines (ex: 6 cr. English, 12 cr History OR 6 cr. French, 6 cr. Spanish, 6 cr. Philosophy)
• No more than 9 credits may also count for major field
• May replace 3 credits of traditional coursework with 3 credits of independent study/directed readings

Strongly Recommended:
• The equivalent of two years of college-level coursework in Latin (i.e. successfully completion of Latin 221 at UMKC or its equivalent)
• Medieval Methods and Paleography (HISTORY 464)

Examples of courses fulfilling the requirements:

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<th>Title</th>
<th>Credits</th>
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<tr>
<td>ART-HIST 201</td>
<td>From Cave Paintings to Cathedrals</td>
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<td>ART-HIST 445</td>
<td>Northern European Art: 15th And 16th Centuries</td>
<td>3</td>
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<tr>
<td>ENGLISH 325</td>
<td>Arthurian Legends</td>
<td>3</td>
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<tr>
<td>ENGLISH 330</td>
<td>History Of The English Language</td>
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<td>ENGLISH 413</td>
<td>Renaissance Literature I</td>
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<td>FRN-LNG 302</td>
<td>Love and Death in European Medieval Literature</td>
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<td>FRENCH 303</td>
<td>Masterpieces of French Literature I</td>
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<td>FRENCH 452</td>
<td>Medieval Poetry</td>
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<td>GERMAN 307</td>
<td>From the Middle Ages to the Baroque</td>
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<td>SPANISH 373</td>
<td>History Of Spanish Literature I</td>
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<td>SPANISH 420</td>
<td>Cervantes' Don Quixote, Part I</td>
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<td>GEOLOGY 408</td>
<td>Archaeological Field Survey Methods</td>
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<td>HISTORY 391</td>
<td>Archival Methods</td>
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<td>HISTORY 412A</td>
<td>Medieval Women &amp; Children</td>
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<td>HISTORY 432R</td>
<td>Tudor England, 1485-1603</td>
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<td>PHILOS 320WI</td>
<td>History of Modern Philosophy</td>
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<td>THEATRE 350</td>
<td>Theatre History I</td>
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<tr>
<td>CONSVTY 351</td>
<td>History of Music in Western Civilization I</td>
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</tbody>
</table>
Military Science

University of Missouri-Kansas City
Department of Military Science
901 E 24 Terr
Kansas City, MO 64108
Phone: (816) 235-6873
Email: armyrotc@umkc.edu

Professor of Military Science:
LTC Zachary Kerns

Senior Military Science Instructor:
MSG Nelbert Michel

Assistant Professors:
MAJ Christopher Rogers
CPT Michael Leggett

Program Description

The Army Reserve Officers Training Corps provides college-trained officers for the U.S. Army and Army Reserve. With the exception of a five-week paid summer camp, all instruction is presented on campus. Various field training exercises are conducted to further enrich students' leadership skills.

A commission as a second lieutenant in the U.S. Army, Army Reserve or National Guard is awarded to individuals who have successfully completed the ROTC program and obtained a baccalaureate degree from UMKC. Currently, college graduates who are commissioned through ROTC are placed on either active duty, the reserves or National Guard duty, depending on their desires and on the needs of the service at the time of graduation. The length and type of obligation will depend on the scholarship awarded.

Financial Assistance

Financial assistance is available through the U.S. Army Scholarship Program. Two-, three- and four-year scholarships are awarded each year to selected students who are enrolled or will enroll in the Army ROTC program. The scholarships provide payment of tuition, fees, textbooks and a monthly payment of $350 for freshman, $400 for sophomores, $450 for juniors, $500 for seniors, not to exceed 10 months for each year of the scholarship. Non-scholarship contracted cadets in the advanced portion of ROTC receive monthly payments of $450 for juniors and $500 for seniors, not to exceed 10 months per year for two years. Students are furnished free textbooks for military science classes.

The Simultaneous Membership Program (SMP) allows students to be a member of a National Guard or Reserve units while enrolled in ROTC. Advanced course SMP students receive E5 pay, plus monthly payments of $450 for juniors, and $500 for seniors from ROTC, plus any Active Duty GI Bill entitlement.

ROTC scholarships are also available to graduate students. Please contact the ROTC Scholarship and Enrollment Officer at 816-235-1152 for more information.

Curriculum

All students are eligible to take Military Science 100- and 200-level courses without any military obligation. However, Military Science 300- and 400-level courses are reserved for students who have a signed contract with ROTC to become an officer upon graduation.

Undergraduate

Undergraduate Program:

- Two-Year Instruction (p. 473)

Courses

MIL-SCI 102 Leadership Practicum Credits: 2
Examines leadership in basic tactical and patrolling operations, Includes a tactical application exercise and participation in physical fitness conditioning as a course requirement. Students practice leadership according to 16 principles and learn basic soldier skills.

MIL-SCI 112 Leadership Practicum Credits: 2
Examines advanced squad and platoon tactical operations with emphasis on patrolling operations. Topics include: leadership techniques, basic first aid, and problem-solving exercises. A tactical field application exercise and physical fitness conditioning program are included as course requirements. Students perform duties as leaders of small units.

Co-requisites: MIL-SCI 126.

MIL-SCI 116 Foundations of Officership Credit: 1
The course introduces the student to issues and competencies that are central to a commissioned officer's responsibilities. These initial lessons establish a framework for understanding officership, leadership, and Army values. Additionally, the semester addresses life skills, including physical fitness and time management. This course is designed to give the student an accurate insight into the Army profession and the officer's role in the Army.

Co-requisites: MIL-SCI 102.

MIL-SCI 126 Basic Leadership Credit: 1
This course focuses on leadership theory and decision making. "Life skills" lessons in this course include: problem solving, critical thinking, leadership theory, followership, group interaction, goal setting, and feedback mechanisms. Upon completion of this course, students are prepared to advance to more complex leadership instruction concerning the dynamics of organization. Additionally, students will be increasingly required to demonstrate knowledge of leadership fundamentals and communications (written and oral).

Co-requisites: MIL-SCI 112.

MIL-SCI 202 Leadership Practicum Credits: 2
Course examines squad and platoon offensive and defensive operations and leadership procedures in patrolling operations. Includes a tactical application exercise and participation in physical fitness conditioning as a course requirement. Students will perform various leadership roles and present classroom instruction.

Corequisite: MIL-SCI 216

MIL-SCI 212 Leadership Practicum Credits: 2
Examines advanced squad and platoon offensive and defensive operations, reaction to obstacles, and leadership procedures in patrolling operations. Includes a tactical application exercise and participation in physical fitness conditioning as a course requirement. Students will perform in various leadership roles and present classroom instruction.

Co-requisites: MIL-SCI 226.

MIL-SCI 216 Individual Leadership Series Credits: 2
This course is designed to develop within the student a knowledge of self, self-confidence and individual skills. Through experiential learning activities, students will develop problem-solving and critical-thinking skills, apply communication, feedback and conflict-resolution skills. This course delves into several aspects of communication and leadership theory. The focus of the course is on critical life skills which enable the students future success. The course concludes with a major leadership and problem-solving case study which draws upon previous instruction.

Prerequisites: MIL-SCI 126.


MIL-SCI 226 Leadership and Teamwork Credits: 2
This course focuses on self-development guided by knowledge of self and group processes. Experiential learning activities are designed to challenge students current beliefs, knowledge and skills. This semester takes the approach of placing students in a wide variety of group exercises designed to emphasize various leadership competencies and insights. The instructor, acting as a facilitator, helps guide student processing of the events to derive the leadership, group dynamics and problem-solving lessons that the exercises offer. Practical life skills are emphasized throughout.

Prerequisites: MIL-SCI 216.

Co-requisites: MIL-SCI 212.

MIL-SCI 302 Leadership Practicum Credits: 2
Examines squad and platoon offensive and defensive operations, the patrol leader in patrolling operations, and a tactical application exercise. Participation in physical fitness conditioning and a tactical application exercise is required. Students will perform in various leadership roles and present classroom instruction.

Prerequisites: MIL-SCI 226.

Co-requisites: MIL-SCI 316.
MIL-SCI 312 Leadership Practicum Credits: 2
Familiarization with military firearms; includes assembly and disassembly; tactical communications; and the field artillery request and a tactical application exercise. Participation in physical fitness conditioning and a tactical application exercise is required. Students will perform in various leadership roles and present classroom instruction.

Prerequisites: MIL-SCI 316.

Co-requisites: MIL-SCI 326.

MIL-SCI 316 Leadership and Problem Solving Credits: 3
Following an introduction to the principles of physical fitness and healthy lifestyles, lessons will cover: the Leader Development Program, planning and conducting individual and small unit training, basic tactical principles, reasoning skills and the military-specific application of these skills in the form of the Army's troop-leading procedures. The course concludes with a detailed examination of officership, which culminates in a five-hour officership case study.

Prerequisites: MIL-SCI 226.

Co-requisites: MIL-SCI 302.

MIL-SCI 326 Leadership and Ethics Credits: 3
Continues the focus from MIL-SCI 316 on doctrinal leadership and tactical operations at the small unit level. Instructional modules include: Army branches, Army leadership, philosophy, dynamics of a group environment, oral and written presentation skills, culminating in instruction in national and Army values and ethics. This critical semester synthesizes the various components of training, leadership and team building.

Prerequisites: MIL-SCI 316.

Co-requisites: MIL-SCI 312.

MIL-SCI 397 US Military History Credits: 3
This course examines the beginnings of human military history from pre-colonial through the birth of America and into the post-Cold War era. The course focuses on the origins of tactics and techniques and emphasizes the military as an aspect of American society and its role in political, social, economic, and international environments.

MIL-SCI 402 Leadership Practicum Credits: 2
Practical applications in problem analysis, decision making, planning and organization, delegation and control, and development of interpersonal skills required for effective management. Participation in physical fitness conditioning and tactical application exercise is required. Students will perform in various leadership positions and present classroom instruction.

Prerequisites: MIL-SCI 416.

Co-requisites: MIL-SCI 416.

MIL-SCI 412 Leadership Practicum Credits: 2
Practical applications in problem analysis, decision making, planning and organization, delegation and control, and development of interpersonal skills required for effective management, includes a tactical application exercise. Participation in physical fitness conditioning is required. Students will perform various leadership roles and conduct classroom instruction.

Prerequisites: MIL-SCI 416.

Co-requisites: MIL-SCI 426.

MIL-SCI 416 Leadership And Management Credits: 3
A series of lessons designed to enable students to make informed career decisions as they prepare for commissioning and service as Second Lieutenants. Classes concentrate on Army operations and training management, and communications and leadership skills, which support the final transition from cadet/student to Lieutenant/leader. Subjects include: The Army Training Management System, coordinating activities with staffs, and counseling skills. At the end of this semester, students should possess the fundamental skills, attributes and abilities to operate as a competent leader in the cadet battalion.

Prerequisites: MIL-SCI 326.

Co-requisites: MIL-SCI 402.

MIL-SCI 426 Officership Credits: 3
A series of lessons that provide a review of the ethical dimensions of leadership, law in leadership, organizing for military operations to include historical case studies, personnel, supply and maintenance administration and management, personal financial planning and entering the service. The semester concludes with a 12-lesson experiential exercise simulating assignment as a new Lieutenant in a unit.

Prerequisites: MIL-SCI 416.

Co-requisites: MIL-SCI 412.

MIL-SCI 497 Leadership And Management Practicum - Directed Study Credits: 1-3
Practical application in military problem analysis, decision making, planning and organization, delegation and control, and development of interpersonal skills required for effective management.
Two-Year Instruction

ROTC instruction usually is presented over the four years of traditional full-time study. This also allows commissioning at the same time graduation requirements are met. However, a two-year program is available for students who were unable to take the first two years of instruction and want to earn a commission.
Department of Philosophy

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5030 Cherry Street
(816) 235-1331
Fax: (816) 235-5193
philosophy@umkc.edu
http://cas.umkc.edu/philosophy

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Department of Philosophy
434 Cherry Hall
5030 Cherry Street
Kansas City, MO 64110-2499

Department Chair:
Bruce Bubacz

Professors Emeriti:
Henry R. Frankel, George D. Gale, Jr., Edward Walter

Professors:
Bruce Bubacz, Clancy Martin, Wayne Vaught

Associate Professor:
James Sheppard

Assistant Professor:
Gwen Nally

Associate Teaching Professor:
Adrian Switzer

Undergraduate Advisor:
James Sheppard

Department Description
The Department of Philosophy offers a program of study leading to the bachelor of arts degree in philosophy. Courses are offered that develop critical and analytical skills, acquaint students with the history of philosophy and apply philosophy to issues of living.

Students who major in other disciplines can gain special insight into their majors with a philosophy minor. There is a focused minor on bioethics, targeted at students interested in the medical and health care professions.

Career Implications of the Degree
The dynamism of American economic life guarantees that change will be a constant, especially in employment – most people will change careers several times during their working lives. How can you prepare yourself for the inevitable challenges of your career? The most important traits that will serve you well in the twenty-first century are flexibility and discipline, the capacity to quickly assess and understand new environments, to recognize opportunities and the ability to deploy tools that will guarantee success. The study of philosophy will prepare you for the challenges of this evolving world. Studying philosophy provides you with the ability to read complex materials with care and comprehension, to write with clarity and economy and to express your ideas forcefully and succinctly. If you are interested in honing the skills that will allow you to succeed in any endeavor requiring focused thought, if you recognize that the best way to prepare for the challenging world of our knowledge-based economy is to hone your mind and sharpen your intellect, then philosophy is the major for you.

Advising System
Although all faculty members of the department are available for student advising, the department has an undergraduate advisor to whom questions about the philosophy program should be directed.
Special Services
The Philosophy Department is committed to having a strong student community, and has a very active Honors Society, Phi Sigma Tau. Events include everything from inviting guest speakers, movie nights, reading/discussion groups (both with and without faculty members) to socializing, and are open to anyone interested in philosophy. Students are highly encouraged to be active participants in both Phi Sigma Tau and departmental life in general.

Scholarly Presentations
Many visiting philosophers present scholarly papers to the Philosophy Department during the academic year. In addition, organizations such as the Kansas City Area Philosophical Association, the Central States Philosophical Association and other professional societies occasionally meet in Kansas City. Students are cordially invited to attend these activities.

Faculty
Bruce Bubacz Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=bubacz); chair, department of philosophy; curators’ professor of philosophy and professor of law; B.A. (Ripon College); M.S., Ph.D. (University of Washington-Seattle).

Clancy W. Martin Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=martin); professor of philosophy; B.A. (Baylor University); Ph.D. (University of Texas at Austin).

Gwen Nally Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=Nally); assistant professor of philosophy; B.A. (James Madison University); M.A., Ph.D. (University of Virginia).

James Sheppard Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=sheppard); associate professor of philosophy; B.A. (University of Wisconsin-Eau Claire); M.A. (Michigan State University); Ph.D. (Binghamton University).

Adrian Switzer Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=switzer); associate teaching professor of philosophy; B.A. (Lehigh University); M.A., Ph.D. (Loyola University Chicago).

Wayne Vaught Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=vaught); Dean of Arts & Sciences and professor of philosophy and professor of medicine; B.A. (Georgetown College); M.A. (Baylor University); Ph.D. (University of Tennessee).

1 Members of UMKC Graduate Faculty
2 Members of UMKC Doctoral Faculty

Undergraduate

Undergraduate Degrees:
• Bachelor of Arts: Philosophy (p. 480)
• Minor in Philosophy (p. 484)
• Minor in Bioethics and Medical Humanities (p. 483)

Courses

PHILOS 210 Introduction to Philosophy Credits: 3
An introduction to many of the central problems of philosophy. The various dimensions of philosophy are examined as it related to our relationships with each other, our understanding of our world and our understanding of ourselves. Connections between classical philosophers and contemporary issues are explored as philosophy is considered as a deeply personal and also as a social phenomenon.

PHILOS 210 - MOTR PHIL 100: Introduction to Philosophy

PHILOS 221 Contemporary Moral Issues Credits: 3
This course offers a philosophical examination of ethical issues in contemporary society. Topics for discussion include ethical conflicts arising in business and technology, engineering, healthcare, politics, and the environment. Moral concerns addressed may include reproductive rights and technologies, warfare, capital punishment, pornography, privacy, consumerism, euthanasia, sexuality, and animal welfare.

PHILOS 221 - MOTR PHIL 102: Introduction to Ethics
PHILOS 222 Foundations Of Logic and Scientific Reasoning Credits: 3
This course introduces the basic concepts and methods of modern logic, beginning with premise, inference, conclusion, and argument, with emphasis on understanding and reconstructing complex patterns of reasoning, and analysis and construction of valid arguments.

PHILOS 222 - MOTR PHIL 101: Introduction to Logic

PHILOS 250 Special Readings In Philosophy Credits: 3
An investigation of readings on a topic, a philosophical movement, or a philosopher to be selected by the instructor. The course is designed to meet the needs of students who are interested in a specific issue or person in philosophy but do not yet possess the necessary background and skill demanded of those who have taken work beyond the introductory course (s) in philosophy.
Prerequisites: PHILOS 210 or PHILOS 222 (or equivalent).

PHILOS 250A Special Readings In Philosophy Credits: 3
PHILOS 310WI Ancient Philosophy Credits: 3
A survey of the central figures of classical philosophy: the pre-Socratics, Socrates, Plato, Aristotle, the Stoics, the Epicureans and other philosophers of antiquity. The contributions of major philosophers to the development of science, religion, and social and political theories are studied.
Prerequisites: PHILOS 210 or PHILOS 222, RooWriter.

PHILOS 320WI History of Modern Philosophy Credits: 3
A survey of the central figures of modern philosophy: Rene Descartes, Baruch Spinoza, G.W. Leibniz, Thomas Hobbes, John Locke, George Berkeley, David Hume and Immanuel Kant. In addition to the philosophical issues of the period, cultural, historical and political matters are considered. A secondary goal is the establishment of the pedigree of contemporary philosophical problems.
Prerequisites: PHILOS 210 or PHILOS 222, RooWriter.

PHILOS 321 Ethics Credits: 3
Attention is given to the nature of ethical ideas and the development and history of ethical theory.
Prerequisites: PHILOS 210, or PHILOS 221, or PHILOS 222.

PHILOS 322 Philosophy of Literature Credits: 3
A close study of the ancient problems at the intersection of philosophy and literature: what sort of truth, if any, do we find in literature? Does literature have ethical content? What makes a literary text beautiful? How do "literary" texts defer from philosophical and other kinds of texts? Should literary texts influence our thinking about politics and other social issues? We will study classic philosophers like Plato, Aristotle, Kierkegaard, and Nietzsche, great literary writers such as Sappho, Dante, Goethe, Dostoevsky, and Rilke, and harder to categorize figures like Freud. The class will include the study of several recent philosophers who worked specifically on the subject of the "philosophy of literature," such as Bakhtin, Benjamin, Lacan, Szondi.

PHILOS 325 Aesthetics Credits: 3
The basic problems of aesthetics are examined, with special emphasis on the character of the work of art, the aesthetic response of the viewer, the creative process of the artist, and the nature of aesthetic criticism. These topics are discussed in light of conflicting aesthetic theories.
Prerequisites: PHILOS 210 or PHILOS 222.

PHILOS 329 American Philosophy Credits: 3
The main trends of American thought are covered, with special emphasis on the philosophies of Peirce, James and Dewey.
Prerequisites: PHILOS 210 or PHILOS 222.

PHILOS 332 Existentialism Credits: 3
A study of the development of existentialism. Selections from the works of such thinkers as Kierkegaard, Nietzsche, Sartre, Heidegger, Camus and other related philosophers are considered. Special attention is devoted to the existential movements in literature, social science and medicine.
Prerequisites: PHILOS 210 or PHILOS 222.

PHILOS 333 Social And Political Philosophy Credits: 3
A consideration of representative views of the place of man in contemporary society. Contributions in psychology, political theory, economics, sociology and anthropology are investigated philosophically with a view toward offering a critical appraisal of the nature of man in the human community.

PHILOS 335 Philosophy Of Mind Credits: 3
A study of problems arising in connection with such topics as mental phenomena, the relation of mind to body, free will and determinism, the self and personal identity, and 'thinking' machines. Classical and contemporary treatments of such concepts as 'mind', 'intention', 'sensation', 'perception', 'stimulus', etc., and their relation to action and behavior are considered.
Prerequisites: PHILOS 210 or PHILOS 222.
PHILOS 337 Philosophy Of History Credits: 3
A discussion of methodological and substantive issues, including the nature of historical explanation, whether history can be a science, and various theories of history such as those of Vico, Hegel, Marx, and Collingwood.

**Prerequisites:** PHILOS 210 or PHILOS 222.

PHILOS 340 Philosophy Of Law Credits: 3
An analysis of major philosophies of law, including methods of justifying legal systems through natural law, legal positivism, sociological jurisprudence, theology, etc. Contemporary legal theories are critically analyzed.

**Prerequisites:** PHILOS 210 or PHILOS 222.

PHILOS 370 Environmental Ethics And Policy Credits: 3
Various philosophical approaches to issues such as the value of nature, human obligations to non-human animals, species, ecosystems and future generations; environmental justice; restoration; resource use; environmental politics; and the relation between environmental issues, policy and ethics will be discussed critically.

PHILOS 430 Plato Credits: 3
Selected dialogues of Plato are studied with a view to understanding Plato’s philosophy and its position in the world of Greece and antiquity. Plato’s philosophy is also examined with reference to his place in the Western tradition and in modern philosophy.

**Prerequisites:** PHILOS 210, PHILOS 222 (or equivalent).

PHILOS 431 Aristotle Credits: 3
Selected portions of Aristotle’s works on logic, metaphysics, science, ethics, politics, and poetics are studied with a view to understanding Aristotle’s philosophy and its position in the world of Greece and antiquity. Aristotle’s philosophy is examined with reference to its place in the Western tradition and in modern philosophy.

**Prerequisites:** PHILOS 210 or PHILOS 222.

PHILOS 436 Kant Credits: 3
A study of selected writings of Immanuel Kant, with particular emphasis on the epistemological, metaphysical and ethical aspects of Kant’s philosophy; an examination of Kant’s significance within contemporary thought.

**Prerequisites:** PHILOS 210 or PHILOS 222.

PHILOS 445 20Th-Century Philosophy Credits: 3
A study of the development of philosophy in the 20th-Century, treating such movements as Idealism, Realism, Logical Positivism, Existentialism, Phenomenology, Pragmatism, and Analytic Philosophy.

**Prerequisites:** PHILOS 210 or PHILOS 222.

PHILOS 448 Recent Ethical Theories Credits: 3
An analysis and investigation of modern and contemporary ethical theories. Among the theories considered are ethical relativity, the emotive theory, utilitarianism, neo Kantianism, and situation ethics.

**Prerequisites:** PHILOS 321.

PHILOS 451 History and Philosophy of Bioethics Credits: 3
This course will provide an overview of the history of medicine and bioethics from antiquity to the present. In addition to key historical events, the course will provide an overview of foundational ethical theories. The course will explore key events in bioethics and the responses to them in the bioethics literature.

PHILOS 452 Healthcare Law and Policy Credits: 3
This course will focus on basic issues in healthcare law and public policy. Issues such as confidentiality, informed consent, healthcare financing, and end-of-life decision making will be covered. In addition to key historical events, the course will provide an overview of foundational ethical theories. The course will explore key events in bioethics and the responses to them in the bioethics literature.

PHILOS 453 Clinical Ethics and Case Consultation Credits: 3
This course will focus on classic cases in bioethics and will expose students to contemporary trends in healthcare ethics consultation.

PHILOS 480 Selected Topics Credits: 1-3
Each time this course is offered a particular philosopher or particular area of philosophy will be the topic of discussion. The course may be repeated for credit when the topic varies.

**Prerequisites:** PHILOS 210 or PHILOS 222.
PHILOS 480A Selected Topics Credits: 1-3
PHILOS 480B Selected Topics Credits: 1-3
PHILOS 480E Selected Topics Credits: 1-3
PHILOS 490 Special Topics And Readings Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor. May be repeated for credit when the topic varies.
Prerequisites: Departmental consent.

PHILOS 490B Special Topics And Readings Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor. By permission only. May be repeated for credit when the topic varies.
Prerequisites: PHILOS 222, PHILOS 310WI, PHILOS 320WI, PHILOS 321.

PHILOS 490F Special Topics and Readings Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor. By permission only. May be repeated for credit when the topic varies.
Prerequisites: PHILOS 222, PHILOS 310WI, PHILOS 320WI, PHILOS 321.

PHILOS 5521 Managerial And Administrative Decision Making And Ethical Values Credits: 3
Methods of problem definition and decision making in ethics are presented with the goal of providing the student with a matrix for case review. A series of cases is offered that serve to integrate approaches to ethical reflection with management and administrative decision making. Cases are chosen on the basis of topical, curricular and conceptual relevance.

PHILOS 5540 Seminar On Philosophy And Law Credits: 2
An examination from a philosophical perspective of the historical and conceptual relationships present in the evolution, development and analysis of law. Among the systems of analysis examined will be natural law theory, legal positivism and legal realism. Ordinarily the seminar will focus on a specific area of controversy in the law.

PHILOS 5546 Ethics And Government Credits: 3
An examination of ethical issues related to government, with the primary focus on national and local governmental bodies in the United States. Ethics in the executive, legislative and judicial branches are examined. Ethical standards for elected officials and appointed public servants are reviewed. Attempts to "legislate morality" are considered. The course includes a historical review of ethics and government and an analysis of the legal implications of legislation regarding ethics in the executive branch.

PHILOS 5550 History and Philosophy of Bioethics Credits: 3
This course will provide an overview of the history of medicine and bioethics from antiquity to the present. In addition to key historical events, the course will provide an overview of foundational ethical theories. The course will explore key events in bioethics and the responses to them in the bioethics literature.

PHILOS 5551 Healthcare Law and Policy Credits: 3
This course will focus on basic issues in healthcare law and public policy. Issues such as confidentiality, informed consent, healthcare financing, and end-of-life decision making will be covered. In addition to key historical events, the course will provide an overview of foundational ethical theories. The course will explore key events in bioethics and the responses to them in the bioethics literature.

PHILOS 5552 Clinical Ethics and Case Consultation Credits: 3
This course will focus on classic cases in bioethics and will expose students to contemporary trends in healthcare ethics consultation.

PHILOS 5620 Descartes To Hume Credits: 3
PHILOS 5625 Aesthetics Credits: 3
PHILOS 5638 Philosophy Of Biology Credits: 3
PHILOS 5640 Philosophy Of Law Credits: 3
PHILOS 5690 Research In Selected Fields: Graduate Studies Credits: 3
Intensive research in an area selected by the student in consultation with the instructor. By permission only. May be repeated for credit when the topic varies.

PHILOS H310 Ancient Philosophy - Honors Credits: 3
PHILOS H321 Honors: Introduction To Ethics Credits: 3
PHILOS H332 Existentialism Credits: 3
A study of the development of existentialism. Selections from the works of such thinkers as Kierkegaard, Nietzsche, Sartre, Heidegger, Camus and other related philosophers are considered. Special attention is devoted to the existential movements in literature, social science and medicine.
Prerequisites: PHILOS 210, PHILOS 222 (or equivalent).
PHILOS H333 Social And Political Philosophy Credits: 3
A consideration of representative views of the place of man in contemporary society. Contributions in psychology, political theory, economics, sociology and anthropology are investigated philosophically with a view toward offering a critical appraisal of the nature of man in the human community. No prerequisites.

PHILOS H370 Environmental Ethics And Policy Credits: 3
Various philosophical approaches to issues such as the value of nature, human obligations to non-human animals, species, ecosystems and future generations; environmental justice; restoration; resource use; environmental politics; and the relation between environmental issues, policy and ethics will be discussed critically.
Bachelor of Arts: Philosophy

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

- Have an understanding of the central figures and themes in the history of philosophy.
- Possess the critical reasoning skills necessary to effectively analyze and critique abstract concepts and arguments.
- Be able to develop and defend philosophical arguments, both orally and in writing.
- Be able to apply critical reasoning skills in a wide range of career settings.

Program Requirements

Program Specific Recommendations for UMKC General Education Core Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>Focus B</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>Focus C</td>
<td>(May be satisfied by the Constitution course requirement below)</td>
<td></td>
</tr>
<tr>
<td>Focus Elective</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

‘Total credits’ in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits: 21

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”
Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Choose one of the following:</td>
<td></td>
</tr>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) ¹</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 3

¹ Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arts and Humanities Division of CAS ¹</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Science and Math Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign Language (3rd Semester Level)</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>MATH 110 or MATH 116 or MATH 120</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course) ²</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 116 or MATH 120</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>Laboratory Science Experience</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 31

¹ ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

² This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

Major Requirements

Philosophy majors are required to complete 30 credit hours of philosophy coursework.

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHILOS 210</td>
<td>Introduction to Philosophy (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td>PHILOS 222</td>
<td>Foundations Of Logic and Scientific Reasoning (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>PHILOS 310WI</td>
<td>Ancient Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHILOS 320WI</td>
<td>History of Modern Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHILOS 321</td>
<td>Ethics</td>
<td>3</td>
</tr>
<tr>
<td>Major Electives (12 hours at 300-level or above)</td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>
Elective coursework offered on a regular basis includes the following (consult advisor for additional options):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHILOS 329</td>
<td>American Philosophy</td>
<td></td>
</tr>
<tr>
<td>PHILOS 332</td>
<td>Existentialism</td>
<td></td>
</tr>
<tr>
<td>PHILOS 340</td>
<td>Philosophy Of Law</td>
<td></td>
</tr>
<tr>
<td>PHILOS 370</td>
<td>Environmental Ethics And Policy</td>
<td></td>
</tr>
<tr>
<td>PHILOS 448</td>
<td>Recent Ethical Theories</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 30

No more than nine credit hours of the 30 required hours may be at the 100- or 200-level. To graduate with a major in philosophy, students must pass all courses included in the 30 credit hours required for the major with a grade of C or higher. This requirement also applies to transfer courses.

**General Electives**

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>35</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0

Total Credit Hours: 120

**Tools for Planning and Fulfilling Academic Requirements**

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student's officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
## Minor in Bioethics and Medical Humanities

### Requirements for the Minor

Students wishing to complete the interdisciplinary minor in Bioethics and Medical Humanities must complete 18 hours of coursework.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHILOS 221</td>
<td>Contemporary Moral Issues</td>
<td>3</td>
</tr>
<tr>
<td>or PHILOS 321</td>
<td>Ethics</td>
<td></td>
</tr>
</tbody>
</table>

Select one course in the History of Medicine, for example:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HISTORY 428A</td>
<td>History Of The Body</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 428B</td>
<td>Gender &amp; Medicine: Patients &amp; Practitioners From Antiquity to Present</td>
<td></td>
</tr>
<tr>
<td>CLASSICS 391WI</td>
<td>Ancient Greek and Roman Medicine</td>
<td></td>
</tr>
</tbody>
</table>

Select at least one course in Bioethics:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHILOS 451</td>
<td>History and Philosophy of Bioethics</td>
<td>3</td>
</tr>
<tr>
<td>PHILOS 452</td>
<td>Healthcare Law and Policy</td>
<td></td>
</tr>
<tr>
<td>PHILOS 453</td>
<td>Clinical Ethics and Case Consultation</td>
<td></td>
</tr>
</tbody>
</table>

300/400 level elective courses in bioethics and medical humanities

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHILOS 329</td>
<td>American Philosophy</td>
<td></td>
</tr>
<tr>
<td>PHILOS 332</td>
<td>Existentialism</td>
<td></td>
</tr>
<tr>
<td>PHILOS 340</td>
<td>Philosophy Of Law</td>
<td></td>
</tr>
<tr>
<td>PHILOS 370</td>
<td>Environmental Ethics And Policy</td>
<td></td>
</tr>
<tr>
<td>PHILOS 448</td>
<td>Recent Ethical Theories</td>
<td></td>
</tr>
</tbody>
</table>

Elective coursework offered on a regular basis includes the following (consult advisor for additional options):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
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<tr>
<td>PHILOS 329</td>
<td>American Philosophy</td>
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<tr>
<td>PHILOS 332</td>
<td>Existentialism</td>
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<td>PHILOS 340</td>
<td>Philosophy Of Law</td>
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<tr>
<td>PHILOS 370</td>
<td>Environmental Ethics And Policy</td>
<td></td>
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<tr>
<td>PHILOS 448</td>
<td>Recent Ethical Theories</td>
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</tbody>
</table>

Total Credits: 18

1 From the approved course list or as approved by the program director.

Students must receive a C or better in all coursework applied toward the minor.
Minor in Philosophy

Student Learning Outcomes

Students graduating from this program will:

- Have an understanding of the central figures and themes in the history of philosophy.
- Possess the critical reasoning skills necessary to effectively analyze and critique abstract concepts and arguments.
- Be able to develop and defend philosophical arguments, both orally and in writing.
- Be able to apply critical reasoning skills in a wide range of career settings.

Program Requirements

Philosophy minors are required to complete a total of 18 credit hours, including:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>PHILOS 210</td>
<td>Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>or PHILOS 222</td>
<td>Foundations Of Logic and Scientific Reasoning</td>
<td></td>
</tr>
<tr>
<td>PHILOS 310WI</td>
<td>Ancient Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHILOS 320WI</td>
<td>History of Modern Philosophy</td>
<td>3</td>
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<tr>
<td>Any 300- or 400-level philosophy courses</td>
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<td>9</td>
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<tr>
<td>Elective coursework offered on a regular basis includes the following (consult advisor for additional options):</td>
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<tr>
<td>PHILOS 329</td>
<td>American Philosophy</td>
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<tr>
<td>Total Credits</td>
<td>18</td>
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</tbody>
</table>

Students must achieve a grade of C or better in a course for it to count toward the minor. Students can work with the departmental advisor to tailor focused minors that coordinate with their major.
Department of Physics and Astronomy

Welcome

These catalog pages are here to guide you regarding the central facts of the degree programs offered by the Department of Physics and Astronomy. To learn about the student activities, faculty members, research programs, resources, and culture of the Department of Physics and Astronomy, please visit our Departmental Web Site (http://cas.umkc.edu/physics).

Degree Programs

Undergraduate

The Department of Physics and Astronomy offers programs of study leading to the Bachelor of Arts (BA) and Bachelor of Science (BS). The Physics BS degree may be taken with an Emphasis in Astronomy. Through coordination with the School of Computing and Engineering, a program of study can be designed for motivated students that results in a Physics BS and an Electrical & Computer Engineering BS double degree within five years. The department also offers minors in Physics or Astronomy and provides courses for students in the School of Education to meet the requirements for Teacher Certification in Physics.

Graduate

The Department of Physics and Astronomy offers a Master of Science (MS) degree in Physics with thesis and non-thesis options through the College of Arts and Sciences. The Department of Physics is an academic discipline that is eligible for full participation in UMKC’s Interdisciplinary Ph.D. (IPhD) program. Qualified students may select Physics as their coordinating unit or co-discipline when applying for admission or preparing their IPhD plan of study. (Visit the School of Graduate Studies (Catalog (p. 1185), Web (http://sgs.umkc.edu)) for details about the IPhD program.)

Student Support

Advising System

Students who wish to major or minor in Physics should seek the advice of the undergraduate advisor, Professor Elizabeth Stoddard (stoddarde@umkc.edu).

Students who wish to minor in Astronomy or pursue the Physics BS with an Emphasis in Astronomy should seek the advice of the undergraduate advisor for astronomy, Professor Dan McIntosh (mcintoshdh@umkc.edu).

Students who wish to pursue graduate studies (MS / IPhD) should seek the advice of the graduate advisor, Professor Paul Rulis (rulisp@umkc.edu).

Tutoring

Tutoring is freely available for undergraduate students taking courses from the department. The tutoring room is #259, Flarsheim Hall. Ask your instructor for the tutoring schedule.

Contact

Electronic

Email: physics-astronomy@umkc.edu
Web: http://cas.umkc.edu/physics
Office: (816) 235-1604
Fax: (816) 235-5221

Mailing Address

University of Missouri-Kansas City
Department of Physics and Astronomy
5100 Rockhill Road
Kansas City, MO 64110-2499

Physical Location

5110 Rockhill Road, Room 257
Robert H. Flarsheim Science and Technology Hall (http://www.umkc.edu/virtualtour/flarsheim-hall.asp)

Faculty

Physics & Astronomy Faculty

Department Chair:
Fred M. Leibsle

Undergraduate Advisor (Physics):
Elizabeth P. Stoddard

Undergraduate Advisor (Astronomy):
Daniel H. McIntosh

Graduate Advisors:
Paul M. Rulis, Mark Brodwin

Curators’ Professors:
Wai-Yim Ching, Michael B. Kruger

Professors:
Da-Ming Zhu, Anthony N. Caruso

Associate Professors:
Fred M. Leibsle (chair), Elizabeth P. Stoddard, Daniel H. McIntosh, Mark Brodwin, Paul Rulis

Associate Teaching Professor:
Robert C. Riggs

Associate Research Professor:
Michelle M. Paquette

Professors Emeriti:
Paul J. Bryant, Richard D. Murphy, Marvin R. Querry (Curators’ Professor), George A. Russell (President Emeritus, University of Missouri), John R. Urani

Associate Professors Emeriti:
James R. Beacham, Richard C. Waring

************************************************************************

James R. Beacham; associate professor emeritus of physics; B.S., M.S., Ph.D. (Purdue University).

Mark Brodwin; assistant professor of physics; B.S. (McGill University); M.S., Ph.D. (University of Toronto).

Paul J. Bryant; professor emeritus of physics; B.S. (Rockhurst College); M.S., Ph.D. (St. Louis University).

Anthony Caruso; associate professor of physics; B.A. (Bethany College); M.S., Ph.D. (University of Nebraska).

Wai-Yim Ching; curators’ professor of physics; B.S. (University of Hong Kong); M.S., Ph.D. (Louisiana State University).

Y. C. Jerry Jean; professor of chemistry and physics; B.S. (Taipei Institute of Technology Taiwan); Ph.D. (Marquette University).

Michael B. Kruger; chair, department of physics, and curators’ professor of physics; B.S. (State University of New York-Stony Brook); Ph.D.(University of California-Berkeley).

Fred M. Leibsle; associate professor of physics; B.S. (University of Wisconsin); Ph.D. (University of Illinois).

Daniel H. McIntosh; assistant professor of physics; B.S. (University of California, LA); Ph.D. (University of Arizona).

Richard D. Murphy; professor emeritus of physics; B.A. (University of Colorado); M.A., Ph.D. (University of Minnesota).

Marvin R. Querry; former vice chancellor, academic affairs, and curators’ professor emeritus of physics; B.S. (University of Missouri-Kansas City); M.S., Ph.D. (Kansas State University).

Paul Rulis; assistant professor of physics; B.S. (Virginia Tech); Ph.D. (University of Missouri-Kansas City).

George A. Russell; president emeritus, University of Missouri, and professor emeritus of physics; B.S. (Massachusetts Institute of Technology); M.S., Ph.D. (University of Illinois).
Elizabeth P. Stoddard\textsuperscript{2,3} Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=stoddard); associate professor of physics; B.A. (William Jewell College); M.S., Ph.D. (Washington University).

John R. Urani Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=urani); professor emeritus of physics; B.S., M.S., Ph.D. (University of Missouri-Columbia).

Richard C. Waring; associate professor emeritus; B.A. (William Jewell College); M.A. (University of Arkansas).

Jerzy Wrobel\textsuperscript{2,3} Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=wrobel); professor of physics; M.S., Ph.D. (Wroclaw Technical University).

Da-Ming Zhu\textsuperscript{2,3} Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=zhu); professor of physics; B.S. (University of Science and Technology of China); M.S., Ph.D. (University of Washington).

\begin{enumerate}
\item Associate or Adjunct Graduate Faculty
\item Members of UMKC Graduate Faculty
\item Members of UMKC Doctoral Faculty
\item Located at UM-St. Louis campus
\end{enumerate}

Undergraduate

Undergraduate Admissions

There are no special prerequisites for beginning either the Bachelor of Arts (BA) or the Bachelor of Science (BS) degree programs in Physics. High-school physics and a good working knowledge of algebra and arithmetic are desirable for entering the BS program. However, any deficiencies may be overcome by taking the appropriate coursework. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for physics (Professor Elizabeth Stoddard, stoddarde@umkc.edu) or the undergraduate advisor for astronomy (Professor Dan McIntosh, mcintoshdh@umkc.edu) before beginning the major.

Students that are interested in pursuing Teacher Certification in Physics should contact the School of Education (Catalog (p. 1018), Web (http://education.umkc.edu)) for admissions and advising.

Undergraduate Degrees

- Bachelor of Science: Physics (p. 495)
- Bachelor of Science: Physics with an Emphasis in Astronomy (p. 499)
- Bachelor of Science: Physics and Electrical & Computer Engineering Double Degree (p. 503)
- Bachelor of Arts: Physics (p. 505)
- Physics Minor (p. 509)
- Astronomy Minor (p. 510)
- Teacher Certification in Physics (p. 515)

Career Implications of the Bachelor's Degree in Physics

The BS/BA degree is recommended for students interested in seeking employment in any organization that requires a strong science or technology background. Graduates with a physics degree who enter fields other than science and technology generally find that the reasoning skills and quantitative problem-solving strategies that are developed in a physics program will help their career advancement.

Students that earn a BS degree in Physics are well positioned for continuing their education in graduate school and professional/medical school while those attaining a BS or BA degree in Physics are well positioned for entering the job market in virtually any field of endeavor. There are many career opportunities for holders of either the BS or BA degree in Physics including such possibilities as: researcher in a government/corporate lab, engineer (electrical, mechanical, etc.), science journalist, technology entrepreneur, financial/actuarial analyst, hardware/software developer, chemist, K-12 educator, materials scientist, meteorologist/seismologist, health practitioner, legal analyst, elected political official, etc.

Graduate

Graduate Degrees:

- Master of Science in Physics (p. 511)
- Interdisciplinary Ph.D. Program in Physics (School of Graduate Studies Catalog Section) (p. 1298)
Astronomy Courses

ASTR 150 Astronomy: Motions of the Cosmos Credits: 3
An introductory exploration of modern topics in astronomy with an emphasis on developing conceptual models for the fundamental laws of gravity and motion crucial to the formation of stars and planetary systems, the growth of black holes and galaxies, and the evolution of cosmic structure.

ASTR 150 - MOTR ASTR 100: Astronomy

ASTR 153L Introductory Astronomy Laboratory Credits: 2
An introductory exploration of astronomical phenomena and concepts through quantitative laboratory activities requiring data collection, analysis and interpretation. This course is open to students from all majors.

Cross Listings: NAT-SCI 153L, PHY-SCI 153L, PHYSICS 153L.

ASTR 153L - MOTR ASTR 100L: Astronomy with Lab

ASTR 155 Astronomy: Starlight and Star Stuff Credits: 3
An introductory exploration of modern topics in astronomy with an emphasis on developing conceptual models for the interactions between light and matter crucial to the life and death of stars, the analysis of starlight and interstellar chemistry, and the interpretation of cosmic history.

ASTR 155 - MOTR ASTR 100: Astronomy

ASTR 353 Practical Astronomy Credits: 3
A practical overview of the basic methods of observational astronomy research, including the principles of telescopes, detectors and measurement theory.

Prerequisites: PHYSICS 220 or PHYSICS 250; and MATH 250 or MATH 268.

ASTR 355 Stellar Astrophysics Credits: 3
A mathematical and conceptual overview of the observed properties of stars and the fundamental astrophysics of radiative transfer, hydrostatic equilibrium, atomic processes and thermonuclear energy production that govern their structure, atmospheres and remnants.

Prerequisites: PHYSICS 220 or PHYSICS 250; and MATH 250 or MATH 268.

ASTR 356 Galaxies Credits: 3
A mathematical and conceptual overview of the observed properties and astrophysics of galaxies highlighting star formation and evolution, the interstellar medium, the Milky Way, galaxy populations and demographics, active galactic nuclei, and galaxy formation and evolution.

Prerequisites: PHYSICS 220 or PHYSICS 250; and MATH 250 or MATH 268.

ASTR 465 Cosmology Credits: 3
This course provides a foundation in both physical and observational cosmology. Students will acquire both a mathematical and conceptual understanding of the formation and dynamics of the Universe.

Prerequisites: PHYSICS 220 or PHYSICS 250; and MATH 250 or MATH 268.

Physical Science Courses

PHY-SCI 110 Foundations Of Physical Sciences I Credits: 4
Fundamental principles and concepts of the various physical and mathematical sciences, integrated by the history and philosophy of science.

PHY-SCI 110 - MOTR PHYS 110L: Essentials Physical Sciences w/Lab

PHY-SCI 110L Foundations Of Physical Sciences, Laboratory I Credit: 1
General laboratory and discussion sessions on various topics in the physical and mathematical sciences.

PHY-SCI 110L - MOTR PHYS 110L: Essentials Physical Sciences w/Lab

PHY-SCI 130 Physics of Sports Credits: 3
A course intended for liberal arts students focusing on the physics involved in different sports. Physical laws and technological developments that impact sports will be studied.
PHY-SCI 140 How Things Work Credits: 3
A course intended for liberal arts students focusing on the principles of operations, histories, and relationships of objects from our daily environment. The areas of investigation include mechanical and thermal objects, electromagnetism, light, special materials and nuclear energy.

Co-requisites: PHY-SCI 140L.

PHY-SCI 140L How Things Work Laboratory Credit: 1
Simple experiments based on everyday experiences are analyzed in terms of conceptual physics. The material includes elements of mechanics of a rigid body, elastic properties of matter, fluid dynamics, thermodynamics, electromagnetism, optics and modern physics.

Co-requisites: PHY-SCI 140.

PHY-SCI 150 Astronomy: Motions of the Cosmos Credits: 3
An introductory exploration of modern topics in astronomy with an emphasis on developing conceptual models for the fundamental laws of gravity and motion crucial to the formation of stars and planetary systems, the growth of black holes and galaxies, and the evolution of cosmic structure.

PHY-SCI 153L Introductory Astronomy Laboratory Credits: 2
An introductory exploration of astronomical phenomena and concepts through quantitative laboratory activities requiring data collection, analysis and interpretation. This course is open to students from all majors. Concurrent enrollment in either PHY-SCI 150 or PHY-SCI 155 is encouraged but not required.

PHY-SCI 155 Astronomy: Starlight and Star Stuff Credits: 3
An introductory exploration of modern topics in astronomy with an emphasis on developing conceptual models for the interactions between light and matter crucial to the life and death of stars, the analysis of starlight and interstellar chemistry, and the interpretation of cosmic history.

PHY-SCI 171 Physics For Future Presidents Credits: 3
A course intended for liberal arts students focusing on the physics they need to be informed citizens in a democracy. Energy, global warming, terrorism, and health are examples of the important topics examined from the perspective of how science should inform policy.

PHY-SCI 410A Selected Topics In Contemporary Science Credits: 3

PHY-SCI 410B Selected Topics In Contemporary Science Credits: 3

PHY-SCI 410C Selected Topics in Contemporary Science Credits: 3

PHY-SCI 410P Selected Topics In Contemporary Science Credits: 3
Selected Topics In Contemporary Science

PHY-SCI 410PF Selected Topics In Contemporary Science Credits: 3

PHY-SCI 435 Selected Topics In The History Of Science Credits: 3
Selected Topics In The History Of Science

PHY-SCI 435PF Selected Topics In The History Of Science Credits: 3

Physics Courses

PHYSICS 130 Physics of Sports Credits: 3
A course intended for liberal arts students focusing on the physics involved in different sports. Physical laws and technological developments that impact sports will be studied.

PHYSICS 131L Backyard Physics Credit: 1
This laboratory course uses readily available ingredients to develop a conceptual understanding of the laws of nature and mathematics. Experiments can be conducted in the residence hall, apartment, park or home using everyday, inexpensive equipment and materials.

PHYSICS 140 How Things Work Credits: 3
A course intended for liberal arts students focusing on the principles of operations, histories, and relationships of objects from our daily environment. The areas of investigation include mechanical and thermal objects, electromagnetism, light, special materials and nuclear energy.

Co-requisites: PHYSICS 140L.

PHYSICS 140 - MOTR PHYS 100L: Essentials in Physics with Lab
PHYSICS 140L How Things Work Laboratory Credit: 1
A course intended for liberal arts students focusing on the principles of operations, histories and relationships of objects from our daily environment. The areas of investigation include mechanical and thermal objects, electromagnetism, light, special materials and nuclear energy.
Co-requisites: PHYSICS 140.

PHYSICS 140L - MOTR PHYS 100L: Essentials in Physics with Lab

PHYSICS 150 Astronomy: Motions of the Cosmos Credits: 3
An introductory exploration of modern topics in astronomy with an emphasis on developing conceptual models for the fundamental laws of gravity and motion crucial to the formation of stars and planetary systems, the growth of black holes and galaxies, and the evolution of cosmic structure.

PHYSICS 153L Introductory Astronomy Laboratory Credits: 2
An introductory exploration of astronomical phenomena and concepts through quantitative laboratory activities requiring data collection, analysis and interpretation. This course is open to students from all majors.

PHYSICS 155 Astronomy: Starlight and Star Stuff Credits: 3
An introductory exploration of modern topics in astronomy with an emphasis on developing conceptual models for the interactions between light and matter crucial to the life and death of stars, the analysis of starlight and interstellar chemistry, and the interpretation of cosmic history.

PHYSICS 171 Physics for Future Presidents Credits: 3
A course intended for liberal arts students focusing on the physics they need to be informed citizens in a democracy. Energy, global warming, terrorism, and health are examples of the important topics examined from the perspective of how science should inform policy.

PHYSICS 210 General Physics I Credits: 4
Introduction to mechanics, wave motion and sound and heat and thermodynamics. Three hours lecture and two hours laboratory per week.
Co-requisites: MATH 110 or MATH 120.

PHYSICS 210 - MOTR PHYS 150L: Physics I with Lab

PHYSICS 220 General Physics II Credits: 4
Introduction to electricity and magnetism, light and optics and modern physics. Three hours lecture and two hours laboratory per week.
Prerequisites: PHYSICS 210.

PHYSICS 240 Physics For Scientists and Engineers I Credits: 5
Introduction to mechanics, wave motion and sound and heat and thermodynamics.

PHYSICS 240 - MOTR PHYS 200L: Advanced Physics I with Lab

PHYSICS 250 Physics For Scientists and Engineers II Credits: 5
Introduction to electricity and magnetism, light and optics and modern physics. Four hours lecture and two hours laboratory per week.
Prerequisites: PHYSICS 240.

Co-requisites: MATH 220.

PHYSICS 310 Mechanics I Credits: 3
Advanced statics and dynamics of particles and rigid bodies including gravitation.
Prerequisites: PHYSICS 220 or PHYSICS 250; and MATH 250 or MATH 268.

PHYSICS 311 Mechanics II Credits: 3
Continuation of Mechanics I, including mechanics of continuous media, Lagranges equations, tensor algebra and theory of small vibrations.
Prerequisites: PHYSICS 310.

PHYSICS 330 Methods Of Theoretical Physics I Credits: 3
Introduction to mathematical and numerical methods used in the theoretical modeling of physical systems. Treatments of linear systems in scientific and engineering applications will be emphasized.
Prerequisites: MATH 250.
PHYSICS 342 Physics of Science Fiction Credits: 3
This course will quantitatively explore the representation of physics in science fiction books, movies and television shows. Many popular science fiction concepts will be explored, spanning centuries of physics from Galileo to string theory.

Prerequisites: PHYSICS 210 and 220 or PHYSICS 240 and 250; MATH 120 or MATH 125.

PHYSICS 350 Modern Physics With Engineering Applications Credits: 3
An introduction to the theories that revolutionized science and technology in the twentieth century. Topics include special and general relativity, introductory quantum mechanics and atomic structure. Inventions and applications based on these are also examined.

Prerequisites: MATH 210 and MATH 220 and either PHYSICS 210 or PHYSICS 240 and PHYSICS 250.

PHYSICS 353 Practical Astronomy Credits: 3
A practical overview of the basic methods of observational astronomy research, including the principles of telescopes, detectors and measurement theory.

Prerequisites: PHYSICS 240 and PHYSICS 250, MATH 210 or MATH 220.

PHYSICS 355 Stellar Astrophysics Credits: 3
A mathematical and conceptual overview of the observed properties of stars and the fundamental astrophysics of radiative transfer, hydrostatic equilibrium, atomic processes and thermonuclear energy production that govern their structure, atmospheres and remnants.

Prerequisites: PHYSICS 240 and PHYSICS 250, MATH 210 or MATH 220.

PHYSICS 356 Galaxies Credits: 3
A mathematical and conceptual overview of the observed properties and astrophysics of galaxies highlighting star formation and evolution, the interstellar medium, the Milky Way, galaxy populations and demographics, active galactic nuclei, and galaxy formation and evolution.

Prerequisites: PHYSICS 240 and PHYSICS 250, MATH 210 or MATH 220.

PHYSICS 385L Physics of Electronics Credits: 3
An introduction to the solid state physics of basic electronic components and their operation through both theory and practical labwork.

Prerequisites: PHYSICS 220 or PHYSICS 250.

PHYSICS 395L Computer Interfacing Laboratory Credits: 3
An introduction to data acquisition and automation by computer interfacing transduction and control equipment through the serial and parallel buses. The course is multidisciplinary, balancing the physics of transduction to the computer science of automation programming to the electrical engineering of bus protocols. Both high- and low-level programming are taught within the context of automating an experimental procedure. Digital-to-analog and analog-to-digital conversion is also covered.

Prerequisites: PHYSICS 385L.

PHYSICS 410 Thermal Physics Credits: 3
A study of the laws of thermodynamics and their applications, with an introduction to kinetic theory. Statistical methods are emphasized.

Prerequisites: PHYSICS 220 or PHYSICS 250; and MATH 250 or MATH 268.

PHYSICS 420 Optics Credits: 3
Geometrical optics, physical optics and introduction to selected topics in modern optics.

Prerequisites: One year of physics and MATH 210 and MATH 216.

PHYSICS 437 Particle Physics Credits: 3
Essential aspects of modern physics are examined in a historical context, and also in terms of the standard model describing concisely the fundamental interactions among particles. Conservation laws are discussed, and recent developments such as String Theory are considered. Physics 437 is also offered as Physics 5537.

Prerequisites: PHYSICS 240, PHYSICS 250, PHYSICS 350 or PHYSICS 472.

PHYSICS 450 Introduction To Solid State Physics Credits: 3
Crystal structure and binding, elementary lattice dynamics and energy band theory. Free electron models, theory of semiconductors and metals.

Prerequisites: PHYSICS 310 or PHYSICS 410.

PHYSICS 460 Electricity And Magnetism I Credits: 3
Static electric fields in free space and material media; Kirchoff's laws and direct current circuits; static magnetic fields.

Prerequisites: PHYSICS 220 or PHYSICS 250; and MATH 250 or MATH 268.

PHYSICS 461 Electricity And Magnetism II Credits: 3
Magnetostatics; alternating current circuits; Maxwell's equations and radiation; special relativity; topics in electromagnetism.

Prerequisites: PHYSICS 460.
PHYSICS 465 Cosmology Credits: 3
This course provides a foundation in both physical and observational cosmology. Students will acquire both a mathematical and conceptual understanding of the formation and dynamics of the Universe.
Prerequisites: PHYSICS 240 and PHYSICS 250, MATH 210 or MATH 220.

PHYSICS 472 Introduction To Quantum Mechanics Credits: 3
Introduction to the theory and applications of quantum mechanics with emphasis on the mathematical treatment of modern physics.
Prerequisites: PHYSICS 350.

PHYSICS 476LW Advanced Laboratory Credits: 3
This course offers a selection of important experiments in physics, performed with modern instrumentation. It is designed to give students a deeper understanding of physics and help them develop experimental abilities and improve their communication skills.
Prerequisites: RooWriter.
Co-requisites: PHYSICS 350.

PHYSICS 490 Special Problems Credits: 1-3
The kind of problem and the amount of credit to be given by arrangement with the department.

PHYSICS 499 Undergraduate Research Credits: 1-3
Independent student research on a physics/astrophysics project under the supervision of a faculty member. Projects will engage students in aspects of the scientific process including data collection and analysis, research methods and strategies, scientific discussion and written/oral communication. Requires a minimum of 3-4 hours of research per week for each credit hour.

PHYSICS 5500 Methods Of Mathematical Physics I Credits: 3
Intended to provide the student with the advanced mathematical techniques needed for beginning graduate studies in the physical sciences. Content includes real variables, infinite series, complex analysis, linear algebra and partial differential equations.

PHYSICS 5501 Methods Of Mathematical Physics II Credits: 3
A continuation of Physics 500 which includes Sturm-Liouville operators, special functions, Fourier transforms, distributions and Green functions, Laplace transforms, linear groups and tensor analysis.

PHYSICS 5505 Survey Of Recent Development In Physics Credits: 3
Specifically designed to help high school and junior college science teachers keep pace with current developments in various subdivisions of physics and their impact on society and technology. (Not applicable for graduate degree in Physics).
Prerequisite: Baccalaureate degree and one year science teaching experience.

PHYSICS 5510 Theoretical Mechanics I Credits: 3
A review of undergraduate mechanics precedes the study of generalized classical mechanics in this course. Topics include variational principles, Lagrangian and Hamilton methods, conservation laws and Hamilton-Jacobi theory.

PHYSICS 5511 Theoretical Mechanics II Credits: 3
A continuation of PHYSICS 5510, this course covers topics such as normal coordinates, small oscillations, continuum mechanics and special/general relativity.

PHYSICS 5520 Electromagnetic Theory And Applications I Credits: 3
Electrostatics, magnetostatics and various approaches in solving boundary value problems of electromagnetism, Green's functions, conformal transformations and polynomial expansions, Maxwell's equations and waves.

PHYSICS 5521 Electromagnetic Theory And Applications II Credits: 3
Waveguides, fiberoptics, radiation systems and antenna for wireless communications, scattering and diffraction of electromagnetic waves, multipole fields, special relativity and relativistic particle dynamics and radiation.

PHYSICS 5530 Quantum Mechanics I Credits: 3
Review of elementary methods, formal preliminaries, axioms, commuting operators, angular momentum, static perturbation theory, Wigner-Eckart theorem.

PHYSICS 5531 Quantum Mechanics II Credits: 3
Time dependent perturbation theory, scattering, applications to atoms, molecules and nuclei, reactions, relativistic methods.

PHYSICS 5535 Optical Properties Of Matter Credits: 3
Maxwell's equations and the dielectric function, absorption and dispersion, free-electron metals, interband transitions, dispersion relations and sum rules, self-consistent field approximation, current-current correlations and the fluctuation-dissipation theorem, plasmons and characteristic energy loss.
Prerequisites: PHYSICS 450, PHYSICS 460, PHYSICS 461, PHYSICS 472, PHYSICS 5500.
PHYSICS 5537 Particle Physics Credits: 3
Essential aspects of modern particle physics are examined in a historical context, and also in terms of the standard model describing concisely the fundamental interactions among particles. Conservation laws are discussed, and recent developments such as String Theory are considered.
**Prerequisites:** (for undergraduates) PHYSICS 240, PHYSICS 250, and PHYSICS 350 or PHYSICS 472.

**Cross Listings:** PHYSICS 437.

PHYSICS 5540 Statistical Physics I Credits: 3
Statistical mechanics as a basis for thermodynamics; classical distribution functions; quantum statistical mechanics, kinetic theory, transport phenomena; application to systems of interacting particles.
**Prerequisites:** PHYSICS 410, PHYSICS 472.

PHYSICS 5541 Statistical Physics II Credits: 3
Special topics in advanced statistical physics including: second quantization, modern many body theory, interacting Fermi and Bose systems, superfluidity and superconductivity, renormalization group and computer simulation techniques.
**Prerequisites:** PHYSICS 5540.

PHYSICS 5550 Atomic And Molecular Structure Credits: 3
Experimental results and theoretical models by quantum mechanics. Special emphasis on the interaction between radiation and matter.

PHYSICS 5553 Practical Astronomy Credits: 3
A practical overview of the basic methods of observational astronomy research, including the principles of telescopes, detectors and measurement theory, as well as hands-on experience with data reduction and analysis. This course is open to graduate students from all majors.

PHYSICS 5555 Stellar Astrophysics Credits: 3
A mathematical and conceptual overview of the observed properties of stars and the fundamental astrophysics of radiative transfer, hydrostatic equilibrium, atomic processes and thermonuclear energy production that govern their structure, atmospheres and remnants.

PHYSICS 5556 Galaxies Credits: 3
A mathematical and conceptual overview of the observed properties and astrophysics of galaxies highlighting star formation and evolution, the interstellar medium, the Milky Way, galaxy populations and demographics, active galactic nuclei, and galaxy formation and evolution.

PHYSICS 5560 Nuclear Physics Credits: 3
Fundamental properties of the atomic nucleus discussed in terms of experimental results and theoretical models. Quantum and statistical mechanics are used where appropriate.

PHYSICS 5565 Cosmology Credits: 3
This course provides a foundation in both physical and observational cosmology. Students will acquire both a mathematical and conceptual understanding of the formation and dynamics of the Universe.

PHYSICS 5570 Quantum Theory Of Solids I Credits: 3

PHYSICS 5571 Quantum Theory Of Solids II Credits: 3
Topics will include crystal imperfections, impurities and defects, optical properties of metals and semiconductors, electron-lattice interaction and transport theory, superconductivity and theory of disordered systems.

PHYSICS 5580 Physics Seminar Credit: 1
Contemporary publications and research.

PHYSICS 5585 Physics of Electronics Credits: 3
An introduction to the solid state physics of basic electronic components and their operation through both theory and practical lab work.

PHYSICS 5590 Topics In Physics Credits: 1-3
Contemporary publications and research.

PHYSICS 5590A Topics In Physics Credits: 1-3
Contemporary publications and research.

PHYSICS 5590B Special Topics Credits: 1-3

PHYSICS 5590R Topics in Physics Credits: 1-3
Contemporary publications and research.

PHYSICS 5595L Computer Interfacing Laboratory Credits: 3
An introduction to computer interfacing through the use of serial and parallel ports and digital-to-analog and analog-to-digital converters. The course also introduces digital filtering techniques, data analysis techniques, and graphical presentation of data. The programming techniques are taught using high level programming languages currently used in research and development labs.

PHYSICS 5599 Research And Thesis Credits: 1-9
Research for thesis in partial fulfillment of the master's degree in physics.
PHYSICS 5680 Research Seminar Credits: 1-2
Seminars on current research topics of research programs in the department and those of external distinguished scientists. (Must be taken by Physics Ph.D. students).

PHYSICS 5690 Special Research Topics Credits: 1-3
A lecture course presenting advanced research-level topics. **Prerequisites:** Ph.D. candidacy. This course is intended to allow faculty and visiting scholars to offer special courses in selected research areas.

PHYSICS 5699 Research And Dissertation Credits: 1-9
Research for dissertation in partial fulfillment of the Ph.D. degree requirements in physics.

PHYSICS 5899 Required Graduate Enrollment Credit: 1

PHYSICS H150 Honors: Introduction To Astronomy Credits: 3
Honors: Introduction To Astronomy

PHYSICS H220 General Physics II Credits: 4
Fundamental principles of physics including sound, electricity, magnetism, optics, elementary modern physics, and applications of these principles to different interdisciplinary natural science. **Prerequisites:** PHYSICS 210 (or equivalent).

PHYSICS H240 Physics For Science And Engineering I Credits: 5
Introduction to mechanics, wave motion and sound and heat and thermodynamics. **Co-requisites:** MATH 210.

PHYSICS H250 Physics For Science And Engineering II Credits: 5
Introduction to electricity and magnetism, light and optics and modern physics. **Prerequisites:** PHYSICS 240. **Co-requisites:** MATH 220.
Bachelor of Science: Physics

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

- Have a functional knowledge of the basic areas of physics.
- Be able to integrate their knowledge with critical thinking skills in order to become quantitative problem solvers.
- Be able to clearly articulate scientific information, both orally and in writing.
- Be able to effectively use the scientific literature.

Description of the Bachelor of Science Program
The Bachelor of Science (BS) degree in Physics is recommended for students interested in seeking employment in industrial, governmental, or private organizations that require a strong scientific background and for those students that are seeking to continue their academic careers in either graduate school or professional/medical school.

Physics advising questions should be directed to Professor Elizabeth Stoddard (stoddarde@umkc.edu).

Students graduating with a BS degree in Physics will be prepared for entry into professional schools, graduate programs, or the job market for career employment.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>Focus C</td>
<td>(May be satisfied by the Constitution course requirement below)</td>
<td></td>
</tr>
<tr>
<td>Focus Elective</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
</tbody>
</table>
Total credits’ in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

## Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelor’s degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

## College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
<td>Arts and Humanities Division of CAS 1</td>
<td>6</td>
</tr>
<tr>
<td>Science and Math Division of CAS (Satisfied in program requirements below)</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course; Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>Laboratory Science Experience (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 12

1 ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

2 This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.
Major Requirements

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 120</td>
<td>Precalculus</td>
<td>5</td>
</tr>
<tr>
<td>MATH 210</td>
<td>Calculus I (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>MATH 220</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 250</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 211</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>&amp; 211L</td>
<td>and Experimental General Chemistry I (Focus B)</td>
<td></td>
</tr>
<tr>
<td>CHEM 212R</td>
<td>General Chemistry II</td>
<td>5</td>
</tr>
<tr>
<td>&amp; CHEM 212LR</td>
<td>and Experimental General Chemistry II</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 240</td>
<td>Physics For Scientists and Engineers I</td>
<td>10</td>
</tr>
<tr>
<td>&amp; PHYSICS 250</td>
<td>and Physics For Scientists and Engineers II (Focus B)</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 310</td>
<td>Mechanics I</td>
<td>6</td>
</tr>
<tr>
<td>&amp; PHYSICS 311</td>
<td>and Mechanics II</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 330</td>
<td>Methods Of Theoretical Physics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYSICS 350</td>
<td>Modern Physics With Engineering Applications</td>
<td>3</td>
</tr>
<tr>
<td>PHYSICS 385L</td>
<td>Physics of Electronics</td>
<td>6</td>
</tr>
<tr>
<td>&amp; PHYSICS 395L</td>
<td>and Computer Interfacing Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 410</td>
<td>Thermal Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYSICS 420</td>
<td>Optics</td>
<td>3</td>
</tr>
<tr>
<td>PHYSICS 460</td>
<td>Electricity And Magnetism I</td>
<td>6</td>
</tr>
<tr>
<td>&amp; PHYSICS 461</td>
<td>and Electricity And Magnetism II</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 472</td>
<td>Introduction To Quantum Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHYSICS 476LW</td>
<td>Advanced Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>73</td>
</tr>
</tbody>
</table>

Math and Science Requirements

The Bachelor of Science degree requires a minimum of 60 hours in math and science coursework. The number of credit hours needed to meet this minimum requirement are listed below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Additional Math/Science Coursework (Satisfied in program requirements above)</td>
<td></td>
</tr>
</tbody>
</table>

General Electives

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>11</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0

Total Credit Hours: 120

Formulating a Plan of Study

In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for physics (Professor Elizabeth Stoddard, stoddarde@umkc.edu) before beginning the major.

Tools for Planning and Fulfilling Academic Requirements

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.
UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student's officially recorded (Office of Registration and Records) and "what if" plans of study. This evaluation is used to certify all graduation requirements.

UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Science: Emphasis in Astronomy

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

• Have a functional knowledge of the basic areas of astronomy, astrophysics, and physics.
• Be able to integrate their knowledge with critical thinking skills in order to become quantitative problem solvers.
• Be able to clearly articulate scientific information, both orally and in writing.
• Be able to effectively use the scientific literature.

Description of the Bachelor of Science Program with an Emphasis in Astronomy
The Bachelor of Science (BS) degree in Physics with an Emphasis in Astronomy is recommended for students that are seeking to continue their academic careers in graduate school or for those that are interested in seeking career employment in industrial, governmental, or private organizations that require a strong scientific background.

Astronomy advising questions should be directed to Professor Daniel McIntosh (McIntoshDH@umkc.edu).

Students graduating with a BS degree in Physics with an Emphasis in Astronomy will be prepared for entry into graduate programs or the job market for career employment.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied by the Constitution course requirement below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus Elective (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

| Total Credits | 21 |

1. See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

**Constitution Course Requirement**

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</tr>
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<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
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</tr>
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<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
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<td>Constitutional History of the United States</td>
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<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) 1</td>
<td></td>
</tr>
</tbody>
</table>

| Total Credits | 3 |

1. Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelor's degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

**College of Arts & Sciences Degree Requirements**

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

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<td></td>
</tr>
<tr>
<td>Arts and Humanities Division of CAS 1</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Science and Math Division of CAS (Satisfied in program requirements below)</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
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<td></td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course; Satisfied in program requirements below)</td>
<td>6</td>
</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>Laboratory Science Experience (Satisfied in program requirements below)</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

| Total Credits | 12 |

1. ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

2. This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.
Major Requirements

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

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</thead>
<tbody>
<tr>
<td>ASTR/PHYSICS 353</td>
<td>Practical Astronomy</td>
<td>3</td>
</tr>
<tr>
<td>ASTR/PHYSICS 355</td>
<td>Stellar Astrophysics</td>
<td>3</td>
</tr>
<tr>
<td>ASTR/PHYSICS 356</td>
<td>Galaxies</td>
<td>3</td>
</tr>
<tr>
<td>ASTR/PHYSICS 465</td>
<td>Cosmology</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 101</td>
<td>Problem Solving and Programming I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 211 &amp; 211L</td>
<td>General Chemistry I and Experimental</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>General Chemistry I (Focus B)</td>
<td></td>
</tr>
<tr>
<td>MATH 120</td>
<td>Precalculus</td>
<td>5</td>
</tr>
<tr>
<td>MATH 210</td>
<td>Calculus I (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>MATH 220</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 250</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>PHYSICS 240 &amp; PHYSICS 250</td>
<td>Physics For Scientists and Engineers</td>
<td>10</td>
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<tr>
<td></td>
<td>and Physics For Scientists and Engineers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>II (Focus B)</td>
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<tr>
<td>PHYSICS 310 &amp; PHYSICS 311</td>
<td>Mechanics I and Mechanics II</td>
<td>6</td>
</tr>
<tr>
<td>PHYSICS 330</td>
<td>Methods Of Theoretical Physics I</td>
<td>3,</td>
</tr>
<tr>
<td>PHYSICS 350</td>
<td>Modern Physics With Engineering Applications</td>
<td>3</td>
</tr>
<tr>
<td>PHYSICS 410</td>
<td>Thermal Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYSICS 460 &amp; PHYSICS 461</td>
<td>Electricity And Magnetism I</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>and Electricity And Magnetism II</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 472</td>
<td>Introduction To Quantum Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHYSICS 476LW or PHYSICS 395L</td>
<td>Advanced Laboratory</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Computer Interfacing Laboratory</td>
<td></td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td>74-71</td>
</tr>
</tbody>
</table>

Math and Science Requirements

The Bachelor of Science degree requires a minimum of 60 hours in math and science coursework. The number of credit hours needed to meet this minimum requirement are listed below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Additional Math/Science Coursework</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Satisfied in program requirements above)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

General Electives

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td><strong>Minimum GPA: 2.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

Total Credit Hours: 120

Formulating a Plan of Study

In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for astronomy (Professor Dan McIntosh, mcintoshdh@umkc.edu) before beginning the major.
Tools for Planning and Fulfilling Academic Requirements

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major "fit". In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student's officially recorded (Office of Registration and Records) and "what if" plans of study. This evaluation is used to certify all graduation requirements.

UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Physics/Engineering Double Degree

Description of the Physics and Electrical & Computer Engineering Double Degree Program

The combined Bachelor of Science (BS) degree in Physics and BS in Electrical & Computer Engineering five year double degree program is recommended for students interested in seeking employment in industrial, governmental, or private organizations that require a strong theoretical science and applied engineering background and for those students that are seeking to continue their academic careers in either graduate school or professional/medical school.

Physics advising questions should be directed to Professor Elizabeth Stoddard (stoddarde@umkc.edu).

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Arts and Humanities Division of CAS ¹</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Science and Math Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language (3rd Semester Level)</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course) ²</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>Laboratory Science Experience</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>34</td>
</tr>
</tbody>
</table>

¹ ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

² This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

Student Learning Outcomes

Students graduating with a BS degree in Physics and a BS degree in Electrical & Computer Engineering will:
• Have a functional knowledge of the basic areas of physics and electrical & computer engineering.
• Be able to integrate their knowledge with critical thinking skills in order to become quantitative problem solvers.
• Be able to clearly articulate scientific information, both orally and in writing.
• Be able to effectively use the scientific literature.

Students graduating with a BS degree in Physics and a BS in Electrical & Computer Engineering will be prepared for entry into professional schools, graduate programs, or the job market for career employment.

Course Requirements for the Physics BS and Electrical & Computer Engineering BS Double Degree Program

Because of the condensed format of the program, students are strongly advised to contact the Physics undergraduate advisor (Prof. Elizabeth Stoddard (stoddarde@umkc.edu)) and the Electrical & Computer Engineering undergraduate advisor (p. 815) as early as possible before beginning this program.
Bachelor of Arts: Physics

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

- Have a functional knowledge of the basic areas of physics.
- Be able to integrate their knowledge with critical thinking skills in order to become quantitative problem solvers.
- Be able to clearly articulate scientific information, both orally and in writing.
- Be able to effectively use the scientific literature.

Description of the Bachelor of Arts Program

The Bachelor of Arts (BA) degree in Physics is recommended for students interested in seeking employment in science, technology, engineering and math (STEM) areas that require a strong scientific and quantitative background. The BA degree offers greater flexibility than either the Physics BS or the Physics/Engineering Double Degree program because it requires fewer credit hours of physics in contrast to the BS.

Physics advising questions should be directed to Professor Elizabeth Stoddard (stoddarde@umkc.edu).

Students graduating with a BA degree in Physics will be prepared for entry into the high-tech job market.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>Focus C</td>
<td>(May be satisfied by the Constitution course requirement below)</td>
<td></td>
</tr>
<tr>
<td>Focus Elective</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
</tbody>
</table>
Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

### Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions."

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits: 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

### College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALEKS Math Placement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arts and Humanities Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Science and Math Division of CAS</td>
<td>Satisfied in program requirements below</td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language (3rd Semester Level)</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course; Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>Laboratory Science Experience (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 24

1 ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

2 This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.
## Major Requirements

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 120</td>
<td>Precalculus</td>
<td>5</td>
</tr>
<tr>
<td>MATH 210</td>
<td>Calculus I (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>MATH 220</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 250</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 211 &amp; 211L</td>
<td>General Chemistry I and Experimental General Chemistry I (Focus B)</td>
<td>5</td>
</tr>
</tbody>
</table>

Choose One Introductory Series

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYSICS 210 &amp; PHYSICS 220</td>
<td>General Physics I and General Physics II (Focus B)</td>
<td>8</td>
</tr>
<tr>
<td>PHYSICS 240 &amp; PHYSICS 250</td>
<td>Physics For Scientists and Engineers I and Physics For Scientists and Engineers II (Focus B)</td>
<td>8</td>
</tr>
</tbody>
</table>

Required Upper Division Theory Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYSICS 310</td>
<td>Mechanics I</td>
<td>9</td>
</tr>
<tr>
<td>PHYSICS 330</td>
<td>Methods Of Theoretical Physics I</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 350</td>
<td>Modern Physics With Engineering Applications</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 472</td>
<td>Introduction To Quantum Mechanics</td>
<td></td>
</tr>
</tbody>
</table>

Required Upper Division Lab Course (Choose one)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYSICS 385L</td>
<td>Physics of Electronics</td>
<td>3</td>
</tr>
<tr>
<td>PHYSICS 395L</td>
<td>Computer Interfacing Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 476LW</td>
<td>Advanced Laboratory</td>
<td></td>
</tr>
</tbody>
</table>

Additional ASTR/PHYSICS Electives to equal 31 credit hours of Physics coursework.

Restrictions: no more than 10 (of 31) credit hours below the 300 level; no more than 3 credit hours of PHYSICS 490 / PHYSICS 499.

Regular elective offerings include the following. Please consult with advisor for additional course options.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 353</td>
<td>Practical Astronomy</td>
<td></td>
</tr>
<tr>
<td>ASTR 355</td>
<td>Stellar Astrophysics</td>
<td></td>
</tr>
<tr>
<td>ASTR 356</td>
<td>Galaxies</td>
<td></td>
</tr>
<tr>
<td>ASTR 465</td>
<td>Cosmology</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 311</td>
<td>Mechanics II</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 350</td>
<td>Modern Physics With Engineering Applications</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 410</td>
<td>Thermal Physics</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 420</td>
<td>Optics</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 437</td>
<td>Particle Physics</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 450</td>
<td>Introduction To Solid State Physics</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 460</td>
<td>Electricity And Magnetism I</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 461</td>
<td>Electricity And Magnetism II</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 490</td>
<td>Special Problems</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 499</td>
<td>Undergraduate Research</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits**: 50

## General Electives

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Electives</strong></td>
<td>19</td>
</tr>
</tbody>
</table>

**Major Minimum GPA**: 2.0

**Minimum GPA**: 2.0
Total Credit Hours: 120

Formulating a Plan of Study
In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for physics (Professor Elizabeth Stoddard, stoddarde@umkc.edu) before beginning the major.

Tools for Planning and Fulfilling Academic Requirements
UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Physics Minor

Description of the Program
The minor in Physics is designed for students desiring a general background in Physics.

Physics advising questions should be directed to Professor Elizabeth Stoddard (stoddarde@umkc.edu).

Student Learning Outcomes
Students graduating from this program will:

- Have a functional knowledge of the basic areas of physics.
- Be able to integrate their basic scientific knowledge with critical thinking skills to quantitatively solve physics problems.

Program Requirements
Students majoring in any other discipline in the University may elect to minor in Physics.

The Physics minor requires a minimum of 18 credit hours in Physics courses, with a minimum of 9 credit hours at the 300-400 level. Students must receive grades of C or better in each course. Advising questions regarding the Physics minor should be directed to Professor Elizabeth Stoddard (stoddarde@umkc.edu).


<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Take the following coursework:</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Any combination of other physics courses with at least 9 credit hours at the 300-400 level and a total of 18 credit hours.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 210</td>
<td>General Physics I</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 220</td>
<td>and General Physics II</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 240</td>
<td>Physics For Scientists and Engineers I</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 250</td>
<td>and Physics For Scientists and Engineers II</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for physics, Professor Elizabeth Stoddard, (stoddarde@umkc.edu (stoddarde@umkc.edu)).
Astronomy Minor

Description of the Program
The minor in Astronomy is designed for students desiring a general background in Astronomy.

Astronomy advising questions should be directed to Professor Daniel McIntosh (McIntoshDH@umkc.edu).

Student Learning Outcomes
Students graduating from this program will:

• demonstrate competency in stellar astrophysics, galaxies, cosmology and practical astronomy in homework and exam questions.
• translate complicated mathematical expressions of astrophysics laws into concrete calculations and test these.
• clearly articulate scientific information both orally and in writing.

Program Requirements
Students majoring in any other discipline (including Physics) in the University may elect to minor in astronomy.

There are two tracks (Track One, Track Two) each requiring a minimum of 18 credit hours in Physics and Astronomy courses, with a minimum of 9 credit hours at the 300-400 level. It is highly recommended that students follow Track One because the upper level courses will be very challenging without the solid foundation obtained in the calculus-based physics courses (PHYSICS 240/PHYSICS 250). Students must receive grades of C or better in each course.

Track One (Recommended)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYSICS 240</td>
<td>Physics For Scientists and Engineers I</td>
<td>10</td>
</tr>
<tr>
<td>PHYSICS 250</td>
<td>and Physics For Scientists and Engineers II</td>
<td></td>
</tr>
<tr>
<td>Select three of the following:</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 342</td>
<td>Physics of Science Fiction</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 350</td>
<td>Modern Physics With Engineering Applications</td>
<td></td>
</tr>
<tr>
<td>ASTR/PHYSICS 353</td>
<td>Practical Astronomy</td>
<td></td>
</tr>
<tr>
<td>ASTR/PHYSICS 355</td>
<td>Stellar Astrophysics</td>
<td></td>
</tr>
<tr>
<td>ASTR/PHYSICS 356</td>
<td>Galaxies</td>
<td></td>
</tr>
<tr>
<td>ASTR/PHYSICS 465</td>
<td>Cosmology</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>19</td>
</tr>
</tbody>
</table>

Track Two (Approval Required)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYSICS 210</td>
<td>General Physics I</td>
<td>8</td>
</tr>
<tr>
<td>PHYSICS 220</td>
<td>and General Physics II</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td>2-3</td>
<td></td>
</tr>
<tr>
<td>ASTR/PHYSICS 150</td>
<td>Astronomy: Motions of the Cosmos</td>
<td></td>
</tr>
<tr>
<td>ASTR/PHYSICS 153L</td>
<td>Introductory Astronomy Laboratory</td>
<td></td>
</tr>
<tr>
<td>ASTR/PHYSICS 155</td>
<td>Astronomy: Starlight and Star Stuff</td>
<td></td>
</tr>
<tr>
<td>Plus three of the following:</td>
<td>9</td>
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<tr>
<td>PHYSICS 342</td>
<td>Physics of Science Fiction</td>
<td></td>
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<tr>
<td>PHYSICS 350</td>
<td>Modern Physics With Engineering Applications</td>
<td></td>
</tr>
<tr>
<td>ASTR/PHYSICS 353</td>
<td>Practical Astronomy</td>
<td></td>
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<tr>
<td>ASTR/PHYSICS 356</td>
<td>Galaxies</td>
<td></td>
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<tr>
<td>Total Credits</td>
<td></td>
<td>19-20</td>
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</tbody>
</table>

In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for astronomy, Professor Dan McIntosh (McIntoshDH@umkc.edu).
Master of Science: Physics

Admission to the Master of Science in Physics Program

Admissions Requirements

To be admitted to the graduate program, an undergraduate major in physics is not required, and deficiencies in completed coursework may be overcome by taking additional undergraduate-level courses for graduate credit. Applicants are encouraged to take both the Graduate Record Examination (GRE) aptitude test and physics test. International students must take the Test of English as a Foreign Language (TOEFL). Admission will be based on academic record and other information such as letters of reference, GRE score, and a personal interview.

Description of the Master of Science in Physics Program

Degree Options

The Master of Science (MS) degree in Physics may be earned by fulfilling the requirements for the MS with thesis or the MS without thesis. A full-time graduate student seeking the MS degree in physics is expected to take the thesis option and is required for Graduate Teaching Assistants (GTAs). The without-thesis option is designed specifically for part-time students who already have career employment.

Career Implications

The career implications for students with an MS degree in Physics and seeking employment are similar to those with a BS degree in Physics, except that they will have a more advanced standing and will be recognized as having more experience in science/technical activities. Similarly, for students that intend to pursue further academic or professional training, the MS degree in Physics will give greater weight to your applications.

Research Advisor

A student who is entering the graduate program with the objective of earning a MS degree in Physics with a thesis will select or be assigned an advisor. The student-advisor pairing should be made during the first semester, if possible. Together, the student and the advisor will work out the complete program of study for the MS degree in Physics.

Departmental Examination

All graduate students in physics who have completed more than 6 graduate credit hours must take the written departmental examination (p. ) that is offered each January.

Graduate Advising

Graduate student advising questions should be directed to Professor Mark Brodwin (brodwinm@umkc.edu), Flarsheim Hall 250L, (816) 235-2508 or Paul Rulis (rulisp@umkc.edu), Flarsheim Hall 250D, (816) 235-5945.

Scholarships, Fellowships, and Assistantships

Financial support is available through fellowships, teaching assistantships, research assistantships or hourly student wages. Students wishing to be considered for an assistantship must so specify in their letters and application forms.

Student Learning Outcomes

Students graduating from this program will:

- Have an advanced knowledge of the basic areas of physics.
- Be able to integrate their knowledge with critical thinking skills in order to become quantitative problem solvers.
- Be able to clearly articulate scientific information, both orally and in writing.
- Be able to effectively use the scientific literature.

Program Requirements

General Regulations for all MS Degree Seeking Students

1. All graduate students must maintain a grade-point average of 3.0 on a 4.0 scale.
2. Students must satisfy the general requirements set forth by the School of Graduate Studies.
3. Completion of the written departmental examination (p. ) passed at the “MS Comprehensive” level.

Additional Requirements Specifically for the MS Degree in Physics With Thesis

1. 30 graduate credit hours with the following constraints:
   a. Select a minimum of fifteen (15) credit hours from MS Core Courses;
   b. At least fifteen (15) hours of MS Elective Courses.
2. Maintenance of satisfactory progress toward completion of research project and the associated written thesis.
3. A satisfactory\(^1\) thesis defense with the following constraints:
a. The thesis defense is administered by the student’s supervisory committee and can be taken only after the student has passed the written departmental examination (p.) at the “MS Comprehensive” level.

b. The defense may be oral, written, or both and it may include the student’s thesis proposal and associated background material.

**Additional Requirements Specifically for the MS Degree in Physics Without Thesis**

1. 33 graduate credit hours with the following constraints:
   a. Select a minimum fifteen (15) credit hours of core MS courses;
   b. At least eighteen (18) credit hours of MS Elective courses.

**Note:** Graduate students should consult with either of the Department of Physics and Astronomy graduate advisors prior to enrollment.

Professor Mark Brodwin (brodwinm@umkc.edu), Flarsheim Hall 250L, 816-235-5945
Professor Paul Rulis (rulisp@umkc.edu), Flarsheim Hall 250D 816-235-5945

**Course List**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>MS Core Courses</strong></td>
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<tr>
<td>PHYSICS 5510</td>
<td>Theoretical Mechanics I</td>
<td>15</td>
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<tr>
<td>PHYSICS 5520</td>
<td>Electromagnetic Theory And Applications I</td>
<td></td>
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<tr>
<td>PHYSICS 5530</td>
<td>Quantum Mechanics I</td>
<td></td>
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<tr>
<td>PHYSICS 5540</td>
<td>Statistical Physics I</td>
<td></td>
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<tr>
<td>PHYSICS 5521</td>
<td>Electromagnetic Theory And Applications II</td>
<td></td>
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<tr>
<td>PHYSICS 5531</td>
<td>Quantum Mechanics II</td>
<td></td>
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<tr>
<td><strong>MS Elective Courses</strong></td>
<td></td>
<td>15-18</td>
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<tr>
<td>PHYSICS 5500</td>
<td>Methods Of Mathematical Physics I</td>
<td></td>
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<tr>
<td>PHYSICS 5501</td>
<td>Methods Of Mathematical Physics II</td>
<td></td>
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<tr>
<td>PHYSICS 5511</td>
<td>Theoretical Mechanics II</td>
<td></td>
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<tr>
<td>PHYSICS 5535</td>
<td>Optical Properties Of Matter</td>
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<td>PHYSICS 5541</td>
<td>Statistical Physics II</td>
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<tr>
<td>PHYSICS 5550</td>
<td>Atomic And Molecular Structure</td>
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<td>PHYSICS 5553</td>
<td>Practical Astronomy</td>
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<td>PHYSICS 5555</td>
<td>Stellar Astrophysics</td>
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<td>PHYSICS 5556</td>
<td>Galaxies</td>
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<td>PHYSICS 5565</td>
<td>Cosmology</td>
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<td>PHYSICS 5560</td>
<td>Nuclear Physics</td>
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<td>PHYSICS 5570</td>
<td>Quantum Theory Of Solids I</td>
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<tr>
<td>PHYSICS 5590</td>
<td>Topics In Physics</td>
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<tr>
<td>PHYSICS 5595L</td>
<td>Computer Interfacing Laboratory</td>
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<tr>
<td>PHYSICS 5599</td>
<td>Research And Thesis 3</td>
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<tr>
<td>PHYSICS 410</td>
<td>Thermal Physics</td>
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<td>PHYSICS 420</td>
<td>Optics</td>
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<tr>
<td>PHYSICS 476LW</td>
<td>Advanced Laboratory</td>
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<tr>
<td>PHYSICS 450</td>
<td>Introduction To Solid State Physics</td>
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<tr>
<td>PHYSICS 460</td>
<td>Electricity And Magnetism I</td>
<td></td>
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<tr>
<td>PHYSICS 461</td>
<td>Electricity And Magnetism II</td>
<td></td>
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<tr>
<td>PHYSICS 472</td>
<td>Introduction To Quantum Mechanics</td>
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</tbody>
</table>

1 'Satisfactory' is determined by the student’s committee.
2 No more than twelve (12) credit hours of 400-level courses.
3 No more than six (6) hours from PHYSICS 5599.

**Written Departmental Examination**

(a.k.a. MS Comprehensive Exam, PhD Qualifying Exam)
During January of each year, the Department of Physics and Astronomy will administer a written, MS Comprehensive/PhD Qualifying examination of all MS-level physics students and Interdisciplinary PhD students with physics as their primary discipline. The two-part examination will be given during two sessions (morning and afternoon) of four hours each on the first Saturday after the start of the Spring Semester. Each part of the examination will contain approximately eight questions at varying levels of difficulty (introductory to advanced undergraduate). The following subject areas will be addressed in the given order by the two examination sessions:

2. Quantum Mechanics and Thermodynamics.

Students may pass the written examination at the following ascending levels of achievement:

1. "MS Comprehensive" - necessary for the MS degree in physics.
2. "PhD Qualifying" - necessary for invitation to take the comprehensive examination in fulfillment of the Interdisciplinary PhD program requirements.

Students need only pass the written examination once at any given achievement level. But, all graduate students must attempt the exam every year until they pass it at the appropriate level, unless they are granted an exception via a petition to the physics and astronomy faculty.

A maximum of two attempts at each level (MS Comprehensive, PhD Qualifying) will be permitted, and any student who does not attempt the examination when required to do so will be deemed to have failed the examination on that attempt, unless they have been given prior permission to delay taking the exam. Students who are required to take this examination are encouraged to consult with the Department of Physics and Astronomy graduate advisor, Professor Paul Rulis (rulisp@umkc.edu), Flarsheim Hall 250D, 816-235-5945, for detailed information concerning procedures and regulations for the examination.
Interdisciplinary Ph.D. Program Regulations

Regulations
The Department of Physics and Astronomy is a full participant in the Interdisciplinary Ph.D. Program. The doctoral studies committee of the department has the primary responsibility for administering the program within the department. The committee consists of all physics doctoral faculty members with an elected committee chairperson.

See the School of Graduate Studies (p. 1185) section in this catalog and the departmental graduate brochure for general and discipline-specific regulations for Interdisciplinary Ph.D. study with physics as a coordinating unit discipline or co-discipline.
Teacher Certification in Physics

Description of the Teacher Certification in Physics Program

Certification as a middle school (grades 5-9) or secondary (grades 9-12) Physics teacher in either Kansas or Missouri requires that a student complete specific requirements from the School of Education and take coursework in Biology, Chemistry, Environmental Science, Geology, and Physics.

Students will enter this program through the School of Education. For further information about the program, consult the School of Education section of this catalog (p. 1018), visit the School of Education web site (http://education.umkc.edu), or contact the Education Student Services Office at (816) 235-2234.
Department of Political Science

Haag Hall, Room 213
5120 Rockhill Road
(816) 235-1326
Fax: (816) 235-1117
polisci@umkc.edu
http://cas.umkc.edu/politicalscience/

Mailing Address
University of Missouri-Kansas City
Department of Political Science
Haag Hall 213
5120 Rockhill Road
Kansas City, MO 64110-2499

Department Chair:
Beth Vonnahme

Administrative Assistant:

Emeriti Faculty:
Robert E. Gamer, Dale A. Neuman, Robert Evanson

Curators’ Professor:
Max J. Skidmore (Graduate Advisor)

Associate Professors:
Mona Lyne, Beth Vonnahme (Chair), Greg Vonnahme

Assistant Professors:
Rebecca Best, Debra Leiter, Benjamin Woodson

Adjunct Faculty:
David Brichoux, David Sprick, Dan Stroud

Department Description
The Department of Political Science offers programs of study that lead to the Bachelor of Arts and Master of Arts degrees. The undergraduate major in Political Science equips students with the analytic, writing, and presentation skills to acquire, create and convey knowledge of the political and social environment. After completing two core introductory courses, students have complete flexibility in the substantive emphasis of their coursework. Some students focus on one of the main sub-disciplines of American politics, comparative politics, international relations and political theory, while others take a broad array of courses across these sub-disciplines. The political science minor is completely flexible with regard to substantive emphasis and requires only the completion of 18 credit hours of political science courses.

The Master of Arts degree provides students with analytic, quantitative and presentation skills to critically assess debates and arguments in the political science literature. After completing three core seminars in American politics, comparative politics and international relations, students have considerable flexibility in developing their program of study. The degree can be completed with a thesis or a non-thesis option.

Undergraduate Admissions
Students planning to major or minor in political science should declare their choice officially by filling out a Declaration of Major form (http://www.umkc.edu/registrar/forms/declaration-of-major.pdf), and consult the Department Chair for a signature and program advice as early as possible.

Career Implications of the Bachelor's Degree
Political science, in addition to serving as an excellent core discipline for a liberal arts education, may also serve as vocational and professional preparation for students with interests in the following areas:

- Law school and legal careers
- Electoral politics
- Government service
- Not-for-profit and public-interest organizations
- Business and finance
- Teaching and research
• Public and private political research and consulting services
• Electronic and print journalism
• International careers and non-governmental organizations

Department Activities

Advising
Undergraduates with questions about fulfilling Political Science requirements should meet with the Political Science advisor. Graduate students are advised by the Graduate Director.

Honor Society
UMKC has an active chapter of Pi Sigma Alpha, the national political science honor society. Each year Pi Sigma Alpha seeks to recognize the best students in political science in order to – according to its national constitution – "stimulate productive scholarship and intelligent interest in the subject of government." The local Pi Sigma Alpha chapter regularly presents films and speakers, information sessions for law school and graduate school, and sponsors the department monthly informal discussion group known as the Lunch Bunch. Open to all students, the Lunch Bunch provides an informal environment for enjoying a pizza lunch and discussing current events among faculty and students.

Internships and Study Abroad
The department has an active internship program. Information on local, regional, national and international programs of interest to undergraduates in political science is posted on departmental bulletin boards and is available in the main office. Credit is given for successful completion of internship programs approved by the department. Further information regarding internship opportunities and requirements can be found at http://cas.umkc.edu/politicalscience/internships.asp.

UMKC has a large study abroad program, and the department strongly encourages students to participate in approved programs. Credit toward the degree can be earned for approved courses and competitive scholarships are available. For more information see http://info.umkc.edu/international/.

Research
Students are encouraged to participate in faculty research and/or to develop their own research project in conjunction with the undergraduate research program, UMKC SEARCH and SUROP (http://www.umkc.edu/searchsite/). Faculty invitation is required to assist with faculty research and course credit is available. Students who wish to develop their own research project should select a faculty mentor and develop a proposal in conjunction with the mentor. Successful proposals can receive up to $1250 to support student independent research through SEARCH and SUROP.

Independent Study
Independent study in the form of tutorials is available in two courses: POL-SCI 497 and POL-SCI 498 (depending on student qualifications). In either case, without exception, the student must propose a topic for study, have the approval of the advisor and have the written consent of the instructor with whom the tutorial is to be taken before registration for the course. UMKC Honors Program participants may take any course in the department for honors credit by making special arrangements with the instructor at the beginning of the semester.

Political Science Scholarships
The department awards six scholarships each year to outstanding sophomores and juniors. The Ruth L. Gant Memorial Scholarship, the Sallie Millard and Cornelius Roach, Sr. Scholarship, the Dan Bishop Scholarship in Public Policy, Delia Wong Stephens Scholarship, the Pat Gray Memorial Scholarship, and the David N. Atkinson Scholarship in Political Science are awarded specifically to political science majors and can provide from $500 to $4000 to exceptional students. Political Science students are also eligible for College of Arts and Sciences general scholarships.

Faculty
Rebecca Best Contact Information; assistant professor of political science; B.A. (East Carolina University); M.A., Ph.D. (University of North Carolina - Chapel Hill).

Robert K. Evanson Contact Information; associate professor emeritus of political science; B.A. (University of Illinois-Urbana); M.A., Ph.D. (University of Wisconsin-Madison).

Robert E. Gamer Contact Information; professor emeritus of political science; B.A. (Monmouth College); Ph.D. (Brown University).

Debra Leiter Contact Information; assistant professor of political science; B.A. (University of California - San Diego); M.A., Ph.D. (University of California - Davis).

Mona Lyne Contact Information; associate professor of political science; B.S. (University of California - Berkeley); M.A. (Monterey Institute of International Studies); Ph.D. (University of California - San Diego).

Dale Allen Neuman Contact Information; professor emeritus of political science; A.B. (Kenyon College); Ph.D. (Northwestern University).
Max J. Skidmore Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=skidmore); curators’ professor of political science; B.S., B.S. Ed. (Southwest Missouri State); M.Ed. (University of Missouri-Columbia); Ph.D. (University of Minnesota).

Elizabeth Vonnahme Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=vonnahme); chair and associate professor of political science; B.A. (Angelo State University); M.A., Ph.D. (Rice University).

Greg Vonnahme Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=vonnahme); assistant professor of political science; B.S. (University of Iowa); M.A., Ph.D. (Rice University).

Benjamin Woodson Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=woodson); assistant professor of political science; B.S. (Indiana University); M.A., Ph.D. (Stony Brook University).

1 Members of UMKC Graduate Faculty
2 Members of UMKC Doctoral Faculty

Undergraduate
Undergraduate Degrees:
• Bachelor of Arts: Political Science (p. 526)
• Minor in Political Science (p. 524)
• Teacher Certification in Social Studies (p. 534)

Graduate
Graduate Degrees:
• Master of Arts: Political Science (p. 530)
• JD / MA in Political Science Dual Degree Program
• Interdisciplinary Ph.D. (p. 533)

Courses
POL-SCI 210 American Government Credits: 3
American government and politics, with special reference to the U.S. Constitution. This course meets the state requirement for study of the U.S. and Missouri Constitutions.

POL-SCI 220 Introduction To Comparative Politics Credits: 3
Introduces students to general concepts of political authority and systematically analyzes the causes and consequences of variation in political institutions, processes and policies across countries, illustrating concepts and themes with case studies of major European and Asian countries.

POL-SCI 221 Introduction to Comparative Politics and Research Credits: 3
This course introduces students to general concepts of political authority, and systematically analyzes the causes and consequences of variation in political institutions, processes and policies across countries. This course also introduces students to research in comparative politics, with students developing an independent research project.

POL-SCI 230 International Relations Credits: 3
An analysis of relations among nations, with emphasis on structures of international power, causes of war, and approaches to peace.

POL-SCI 301 Western Political Philosophy Credits: 3
An examination of the major theories of politics from Plato to today.

POL-SCI 302 Political Research And Analysis Credits: 3
This class focuses on methods of analysis used in political science research. This course also covers research plans used to gather information about politics and effective ways of utilizing that information. As advances in computing technology expand the availability of politically-driven data, it is possible to bring an increasing amount of information to bear on more questions.
POL-SCI 303 Political Behavior Credits: 3
This course will survey research on conventional and unconventional forms of mass political behavior. Topics to be discussed include campaign participation, voting behavior, public opinion, the media, and participation in protests and revolutions. This course will also cover the methodological approaches to the study of political behavior.

POL-SCI 304 Politics of Developing Countries Credits: 3
The course examines the key arguments that have been advanced to account for differences across countries in rates and levels of economic and political development.

POL-SCI 308 Parties and Interest Groups Credits: 3
Introduction to parties and interest groups in the United States and their important role in the political process. Topics include the formation, organization, activities, and impact of political parties and interest groups in American politics.

POL-SCI 309 Public Opinion Credits: 3
Explores public opinion in the United States, surveying theories and empirical research on the measurement, formation, and distribution of public opinion.

POL-SCI 313 Politics In The American States Credits: 3
A study of the structures, functions, and politics of the institutions of American state governments and an assessment of their role in the federal system. This course is particularly interested in the extent to which political economy and political culture, broadly defined, influence public policy within the states.

POL-SCI 314 Politics of Kansas City Metro Credits: 3
This course will provide an understanding of politics in urban America through a study of metropolitan Kansas City. It will discuss the relationships between local governments, their decision making process, city-county consolidation, structure of regional council of governments, forming political alliances and current political issues affecting the metropolitan area. The course will discuss the politics of issues like transportation, sports facilities, environment and economic competitiveness.

POL-SCI 315 Public Policy Credits: 3
A broad introductory overview of decision theories, governmental structures, and policy processes. Emphasis on the organizational and societal context of public formulation, implementation, and evaluation.

POL-SCI 316 Terrorism And Political Violence Credits: 3
This course explores terrorism and armed struggle from theoretical and historical perspectives, and analyzes a number of violent movements with nationalist, ideological, and religious motivations.

POL-SCI 318 Political Psychology Credits: 3
The field of political psychology is an interdisciplinary field that draws on both psychology and political science to address topics in the political world. This course will focus on a variety of topics including inter-group conflict, stereotyping and prejudice, political socialization, attitude formation and change, political communication, decision heuristics and biases, public opinion, and the future of political psychology.

POL-SCI 319 Campaigns And Elections Credits: 3
This course will examine the role of campaigns in determining the outcome of both congressional and presidential elections and the way that electoral rules structure both campaign strategies and electoral outcomes. This course focuses on topics such as the role of the media, campaign advertising, campaign financing, public opinion, registration requirements, and the role of interest groups.

POL-SCI 326 Racial & Ethnic Politics Credits: 3
This course provides an analysis of the political behavior and roles of racial and ethnic groups in the American political system. Theoretical, empirical, and practical issues of race, racism, and race relations are examined (in the political context). Public policy, electoral behavior, and political institutions are also investigated with regards to the empowerment and political incorporation of communities of color.

POL-SCI 333 Social Networks in Politics Credits: 3
This class focuses on mass political behavior and social networks in the US. Particular attention will be devoted to how relations between individuals can affect political attitudes and participation. We will also consider how these individual relations combine to shape outcomes such as political attitudes, voter turnout, and election outcomes.

POL-SCI 336 American Foreign Policy Credits: 3
Understanding the contemporary debate over American foreign policy in terms of the premises and perspectives of several competing schools of thought.

POL-SCI 343 The Politics Of Social Security Credits: 3
A study of the American Social Security system, including its history, principles, and prospects for the future.

POL-SCI 348 Constitutional Law: The Federal System Credits: 3
A study of the president, congress and state governments from the perspective of the Constitution, emphasizing powers and limitations on the exercise of authority.

POL-SCI 349 Constitutional Law: Civil Liberties Credits: 3
A study of civil liberties in American society, emphasizing factors and forces that restrict or enlarge their scope, as understood through constitutional interpretation.
POL-SCI 357 Western European Politics Credits: 3
This course explores democratic representation and political institutions in Western Europe.

POL-SCI 359 Latin American Politics Credits: 3
In this course we will focus on the major periods in Latin American political history since the Great Depression. This includes the post-War period of optimism in which democratic governments promoted rapid economic development, the period of pessimism and authoritarianism from the 1960s to the 1980s, and a new democratic renewal beginning in the 1990s. We will examine the consolidating democracies that emerged in the 1990s in depth. We will also examine case studies of recently failed democracy, Venezuela, and ask why this democracy failed.

POL-SCI 360 Labor, Politics and Society Credits: 3
This course explores many aspects of unions and the labor movement in society and the vital role organized labor plays as a pillar of democratic society. Unions impact the economy, growth, and the distribution of wealth, and the impact racial and gender equality, social security health and job safety, energy and the environment, and even foreign relations. As a social movement, labor has had a major impact on American history. This course covers these topics from a labor perspective. It examines current obstacles for union organizing, recent union campaigns, labor's political role, and the relationship between labor and the media. This course is part of the Certificate Program in Labor Studies and is offered on the University of Missouri Interactive Video Network at UMKC, UMSL, and UMC.

POL-SCI 361 Global Issues in a Changing World Credits: 3
Threats to national and international security were once dominated by military force and interstate warfare. Threats are now seen in a much broader context. Non-state, transnational actors now pose a threat to transnational business, states, and even civilizations. Issues like global climate change and HIV/AIDS are seen as threats to national survival well beyond any single nation's ability to contain. For some, the deep phenomenon of globalization is seen as a threat to national sovereignty and, indeed, a threat to the international system of states. In this course, challenges and opportunities replace threat as the organizing principle, and the role of international institutions takes center stage.

POL-SCI 362 Latin America and International Relations Credits: 3
This course will survey the relations between Latin American states and between Latin America and the world. Taking the Latin American states as the key actors, we examine the history of US-Latin American relations, including current issues such as drug trafficking, immigration and terrorism. We will also study the region as a player on the international stage, examining Latin America's changing role in the world arena related to trade, development, and the environment. Finally we examine the emergence of new leadership in Latin America.

POL-SCI 364 Designing American Elections Credits: 3
This course examines the role of elections in American politics. Topics include voter registration, campaign finance, redistricting, the electoral college, and primary elections. We will also evaluate how different electoral rules affect political outcomes such as voter turnout, participation, and representation.

POL-SCI 365 Congress and Parliaments Credits: 3
The objective of this course is to compare the American Congress to parliaments and legislatures in other countries. The course will examine how elections and institutions affect the behavior of legislators and the policy-making process in many countries.

POL-SCI 366 British Politics Credits: 3
This course focuses on the contemporary politics of the United Kingdom, particularly elections, institutions, and political parties.

POL-SCI 369 Politics Of The Middle East Credits: 3
The course is designed to provide students with a working knowledge of political systems and major political issues in the Middle East and North Africa. Topics to be covered in the course include the question of Middle East exceptionalism, democratization, the effect of religion and identity, political economy of the Middle East, the Arab-Israeli conflict, political violence, and the Arab Spring.

POL-SCI 370 Labor Law Credits: 3
In this course, participants will examine the role of government in the regulation of labor-management relations in the United States. While the focus of the course will be on federal laws regulating private sector labor relations, parallel issues addressed in the Railway Labor Act and state public sector labor relations law will also be covered. Specific topics include the legal framework for the organization of workers, definition of prohibited or unfair labor practices of employers and unions, legal regulation of the collective bargaining process, regulation of the use of economic weapons in labor disputes, enforcement of collective bargaining agreements and the regulation of internal trade union activities.

POL-SCI 380 Political Science And Politics Credits: 1-6
Offered as a special course in the individual faculty member's area of research specialization. The course may be repeated for credit when the topic varies. The topic and instructor will be announced in advance.
POL-SCI 380A Political Science And Politics Credits: 1-6
POL-SCI 380B Political Science And Politics Credits: 1-6
POL-SCI 380C Political Science And Politics Credits: 1-6
POL-SCI 380D Political Science And Politics Credits: 1-6
POL-SCI 380E Political Science And Politics Credits: 1-6
POL-SCI 380X Political Science And Politics Credits: 1-6
POL-SCI 381 Mock Trial Credit: 1
A study of the trial process in the U.S. judicial system focusing on the structure and rules of trials, including the role of attorneys. Combination of student performance with in-class lecture and discussion.

POL-SCI 403 Political Ideology Credits: 3
A critical examination of contemporary political ideologies including democratic and authoritarian theories.

POL-SCI 404 Conflict Resolution and Cooperation Credits: 3
This course examines theories of cooperation in the international system. Students will assess the challenges to international cooperation and the means through which states and non-state actors overcome those challenges. Students will critically evaluate theories of conflict resolution and cooperation, while learning to apply those theories to current events.

POL-SCI 406 Presidential Politics Credits: 3
This course will examine the American presidency as an institution, and will analyze its role in the American political system. It will also consider the administrations of the various presidents.

POL-SCI 407 Congressional Politics Credits: 3
Focus on the U.S. Congress and its role in the political process, surveying theories and empirical research on congressional campaigns, internal procedures, and the relationship between Congress and the other branches of government.

POL-SCI 408 Judicial Politics Credits: 3
An examination of the judiciary in the American political process, emphasizing the role of judges, lawyers and the Supreme Court.

POL-SCI 424 Urban Politics and Community Power Structures Credits: 3
This course surveys and analyzes the literature covering urban politics. Students will gain both a theoretical understanding of and empirical grounding in the politics of urban America. An array of important political, social and economic problems that impact urban politics will be examined.

POL-SCI 425 Seminar in Comparative Politics Credits: 3
A survey of the major research in comparative politics including state building, democracy, economic development, and political violence.

**Prerequisites:** POL-SCI 220.

POL-SCI 427 Presidential Power: foundations, Growth, Issues Credits: 3
An intense examination of the growth of presidential power, from its constitutional foundations; the necessity of a strong presidency, but the potential for abuse. Appropriate for the general student, as well as for majors in political science.

POL-SCI 435 Politics Of The Environment Credits: 3
A survey of the political aspects of environmental issues. The course poses the problems of environmental damage and examines actual and proposed policies aimed at addressing them. Also offered through the PACE program.

POL-SCI 440 Contemporary Political Thought Credits: 3
Political philosophy from Nietzsche to today.

POL-SCI 442 American Political Thought Credits: 3
This course will focus on intellectual relations to the major periods in American history (the movement for independence, the writing of the Constitution, the Jacksonian period, the Civil War debate, the growth of big business, the rise of the positive state and contemporary America). Contemporary theorists will be included along with Adams, Jefferson, Madison, Hamilton, Marshall, etc.

POL-SCI 451 International Politics In Europe Credits: 3
An examination of developments in international politics in Europe since the end of the Cold War. Issues are discussed in the context of relevant theories of international relations.

POL-SCI 452 Concepts in International Relations Credits: 3
This course exposes advanced undergraduate students to major conceptual and theoretical approaches to international relations.

**Prerequisites:** Prior course in international relations, politics, economics, or history.

POL-SCI 480 Government And Politics Credits: 1-6
This variable credit course will explore different contemporary issues and problems related to government and politics. Credit may apply to the major but will not satisfy any of the four subfields distribution requirements.

POL-SCI 490 Senior Seminar Credits: 3
A review, analysis and integration of the literatures of the several sub-fields of the discipline. For senior political science majors only.

**Prerequisites:** Senior standing.
POL-SCI 491 Internship Credits: 1-6
With the written consent of the department chairman, students may participate in structured internship programs approved by the department for a maximum of six hours.

POL-SCI 492WI Senior Seminar (Capstone) Credits: 3
This intensive survey of political science provides graduating seniors an opportunity for integration and review of their study of political values, behavior, and institutions. Satisfies both writing intensive and capstone requirements.
Prerequisites: Senior standing in political science, RooWriter.

POL-SCI 493 Study Abroad Credits: 1-6
With prior approval from the department advisor, students may complete coursework at an approved foreign university and receive up to 6 hours of political science credit.

POL-SCI 497 Political Science Tutorial Credits: 3
Senior political science majors may apply to do independent study under a selected professor. Must have written consent of the professor prior to registration. Only one tutorial will count toward the major.

POL-SCI 498 Honors Tutorial Credits: 1-3
Senior political science majors with a grade point average of 3.4 or above in political science may apply to do independent study under a selected professor. Must have written consent of professor prior to registration. Only one tutorial will count toward the major.

POL-SCI 5501 Seminar in American Government Credits: 3
A seminar involving intense examination of the foundations, development, and structure of American national government through study of a broad range of classic materials and current research findings; course will prepare a political science graduate student to teach an introductory college course in American government.
Prerequisites: Graduate Standing.

POL-SCI 5505 Scope And Methods Of Political Science Credits: 3
This seminar surveys the various descriptive and quantitative approaches to the study of politics, government and public policy. It covers the methods used in various sub-disciplines and the models employed in political analysis.

POL-SCI 5506 Research Design and Analysis Credits: 3
This course focuses on methods of data gathering, management, and analysis used in political science research. Students gain an understanding of different types of data including surveys, experiments, and archival records. The curriculum will also include ways that these data are managed and analyzed, and how the results are presented in a useful manner.

POL-SCI 5513 Seminar in Comparative Politics Credits: 3
A survey of the major research in comparative politics including state building, democracy, economic development, and political violence.
Cross Listings: POL-SCI 425.

POL-SCI 5521 Judicial Politics Credits: 3
This course addresses broad trends of current research in the area of the judicial process based on empirical studies and the various methodological tools currently used by researchers. Case studies may be used to illustrate in depth the institutional aspects of the judicial process. Biographies may also be used to emphasize the personal and environmental factors which affect judicial decision making.

POL-SCI 5522 Seminar In The Presidency Credits: 3
Critical examination of the American presidency, with in-depth research into selected themes and presidents.
Prerequisites: POL-SCI 406.

POL-SCI 5524 Urban Politics Credits: 3
A seminar on politics and government in urban areas with special attention to community leadership, power structures, interest group and party activity, political behavior, and movements toward local government reform.

POL-SCI 5530 Seminar in International Relations Credits: 3
This course examines major schools of thought and contemporary research in international relations. Topics discussed include international systems, the causes of war and peace, collective security, and international political economy.

POL-SCI 5541 American Political Thought Credits: 3
This course will focus on intellectual reactions to the major periods in American history (the movement for independence, the writing of the constitution, the Jacksonian period, the civil war debate, the growth of big business, the rise of the positive state and contemporary America). Contemporary theorists will be included along with Jefferson, Madison, Hamilton and Marshall.

POL-SCI 5542 Constitutional Interpretation Credits: 3
This course will provide an in-depth treatment of selected areas of constitutional development, related to various aspects of public policy developed under the Constitution through judicial interpretation, including federalism, equality, fundamental rights and freedom of expression.
POL-SCI 5570 The Politics Of Social Security Credits: 3
This course will concentrate upon the principles of social insurance in general, and of the American Social Security system in particular. It will consider the system in relation to the history and traditions of American society. It will analyze popular misconceptions and will pay special attention to the political, economic, and demographic issues relevant to Social Security's current operation and to the program's future.

POL-SCI 5575 Political Ideologies Credits: 3
Consideration of political ideologies and their effects, with in-depth research into selected topics.

POL-SCI 5580 Government And Politics Seminar Credits: 3
Offered as a special seminar in the individual faculty member's area of research specialization. The seminar may be repeated for credit when the topic varies. The topic and instructor will be announced in advance.

POL-SCI 5590 Directed Studies And Research Credits: 1-6
Under the direction of the instructor, students in this course will produce a major research paper: a self-contained thesis chapter, an article for publication or the equivalent. May be repeated for credit.

POL-SCI 5599 Thesis Credits: 1-6
Directed specialized research.

POL-SCI 5688 Doctoral Research Seminar Credits: 3
Students will produce a major research paper under the direction of the instructor. The research project will consist of a self-contained chapter of the dissertation or a work of publishable quality. May be repeated for credit.

POL-SCI 5697 Doctoral-Level Independent Readings Credits: 3
Individual readings under the supervision of members of the Political Science Graduate or Doctoral Faculty in the specified topic or topics. May be repeated. May not be taken during an academic year in which a graduate course or seminar is offered on the topic.

POL-SCI 5697A Doctoral-Level Ir: American National Politics And Institutions Credits: 3

POL-SCI 5697C Doctoral-Level Ir: International Politics And Processes Credits: 3

POL-SCI 5697D Doctoral-Level Ir: Public Law Credits: 3

POL-SCI 5697E Doctoral-Level Ir: Public Opinion And Voter Behavior Credits: 3

POL-SCI 5697F Doctoral-Level Ir: Research Methods Credits: 3

POL-SCI 5697G Doctoral-Level Ir: Political Theory Credits: 3

POL-SCI 5697H Doctoral-Level Ir: Urban And State Politics Credits: 3

POL-SCI 5699 Research And Dissertation Credits: 1-12
Directed specialized research.

POL-SCI 5899 Required Graduate Enrollment Credit: 1
Minor in Political Science

Student Learning Outcomes

Students graduating from this program will:

- critically evaluate their political and social environment.
- obtain an understanding of the workings of government and politics.
- develop skills in critical thinking, analysis and communication.

Requirements

A minor in political science requires the successful completion of 18 hours of coursework within the discipline. At least 9 hours must be at the 300- to 400-level. In addition, at least 9 hours must be earned at UMKC. Only courses in which a grade of C- or better is earned will count towards the minor. It is advisable for students to talk with the department advisor regarding course selection as some are offered on a rotation basis.

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<tr>
<th>Code</th>
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<tbody>
<tr>
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<td>POL-SCI 309</td>
<td>Public Opinion</td>
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<tr>
<td>POL-SCI 313</td>
<td>Politics In The American States</td>
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<tr>
<td>POL-SCI 315</td>
<td>Public Policy</td>
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<tr>
<td>POL-SCI 427</td>
<td>Presidential Power: foundations, Growth, Issues</td>
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<td>POL-SCI 304</td>
<td>Politics of Developing Countries</td>
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<tr>
<td>POL-SCI 316</td>
<td>Terrorism And Political Violence</td>
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<tr>
<td>POL-SCI 357</td>
<td>Western European Politics</td>
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<td>POL-SCI 359</td>
<td>Latin American Politics</td>
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<tr>
<td>POL-SCI 365</td>
<td>Congress and Parliaments</td>
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<td>POL-SCI 366</td>
<td>British Politics</td>
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<tr>
<td>POL-SCI 369</td>
<td>Politics Of The Middle East</td>
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<tr>
<td>POL-SCI 425</td>
<td>Seminar in Comparative Politics</td>
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<tr>
<td>POL-SCI 230</td>
<td>International Relations</td>
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<tr>
<td>POL-SCI 336</td>
<td>American Foreign Policy</td>
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<tr>
<td>POL-SCI 361</td>
<td>Global Issues in a Changing World</td>
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<tr>
<td>POL-SCI 362</td>
<td>Latin America and International Relations</td>
<td></td>
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<tr>
<td>POL-SCI 404</td>
<td>Conflict Resolution and Cooperation</td>
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<tr>
<td>POL-SCI 451</td>
<td>International Politics in Europe</td>
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<tr>
<td>POL-SCI 452</td>
<td>Concepts in International Relations</td>
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<td>POL-SCI 301</td>
<td>Western Political Philosophy</td>
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<td>POL-SCI 403</td>
<td>Political Ideology</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>POL-SCI 440</td>
<td>Contemporary Political Thought</td>
<td></td>
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<tr>
<td>POL-SCI 442</td>
<td>American Political Thought</td>
<td></td>
</tr>
</tbody>
</table>
Bachelor of Arts: Political Science

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

- Compare and contrast American government with democratic and non-democratic regimes.
- Enumerate the key questions that animate the field of political science.
- Analyze both positive and normative questions of power and governance.
- Analyze a key political debate.
- Communicate effectively in oral presentations of their analyses of key political debates.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Anchor I</td>
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<tr>
<td>Anchor II</td>
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<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B</td>
<td>(Satisfied in program requirements below)</td>
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</tr>
<tr>
<td>Focus C</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
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<tr>
<td>Focus Elective</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
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</tbody>
</table>

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 21

1. See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td></td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
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<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
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<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td></td>
</tr>
</tbody>
</table>

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ALEKS Math Placement</td>
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<tr>
<td>Arts and Humanities Division of CAS</td>
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<tr>
<td>Science and Math Division of CAS</td>
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<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
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<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
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<tr>
<td>Foreign Language (3rd Semester Level)</td>
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<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course)</td>
<td>3</td>
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<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
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<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
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<tr>
<td>Laboratory Science Experience</td>
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<tr>
<td>Total Credits</td>
<td>31</td>
<td></td>
</tr>
</tbody>
</table>

1 ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

2 This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

Major Requirements

The department requirement for a major is 30 hours of political science credit. Students must achieve a GPA of at least 2.0 in political science and no credit will be given for courses in which the grade is below C.

At least 21 hours of political science coursework must be at the 300- to 400- level. Students transferring from other institutions should check as soon as possible to determine transferability.

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.
Bachelor of Arts: Political Science

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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Satisfies Focus C and Constitution Course Requirements)</td>
<td>9</td>
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<tr>
<td>POL-SCI 220</td>
<td>Introduction To Comparative Politics (Focus C)</td>
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<tr>
<td>or POL-SCI 221</td>
<td>Introduction to Comparative Politics and Research</td>
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<tr>
<td>POL-SCI 492WI</td>
<td>Senior Seminar (Capstone)</td>
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</table>

**Electives**

| Three Subfield Electives (see options below) | 9       |
| Additional Political Science Electives | 12      |
| Total Credits | 30      |

1. These hours can include POL-SCI 491, POL-SCI 497, and POL-SCI 498.

Political science majors are required to take at least one course in three of the four subfields, which include American Politics, Comparative Politics, International Relations, and Political theory. Courses may be offered on a rotation basis. Please consult with advisor for current availability.

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</table>

**Comparative Politics**

| POL-SCI 304 | Politics of Developing Countries                                     |         |
| POL-SCI 316 | Terrorism And Political Violence                                     |         |
| POL-SCI 357 | Western European Politics                                            |         |
| POL-SCI 359 | Latin American Politics                                              |         |
| POL-SCI 365 | Congress and Parliaments                                             |         |
| POL-SCI 366 | British Politics                                                      |         |
| POL-SCI 369 | Politics Of The Middle East                                          |         |
| POL-SCI 425 | Seminar in Comparative Politics                                      |         |

**International Relations**

| POL-SCI 230 | International Relations                                               |         |
| POL-SCI 336 | American Foreign Policy                                               |         |
| POL-SCI 361 | Global Issues in a Changing World                                     |         |
| POL-SCI 362 | Latin America and International Relations                             |         |
| POL-SCI 404 | Conflict Resolution and Cooperation                                   |         |
| POL-SCI 451 | International Politics In Europe                                      |         |
| POL-SCI 452 | Concepts in International Relations                                   |         |

**Political Theory**
General Electives

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

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<tr>
<th>Code</th>
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<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>38</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0

Total Credit Hours: 120

Tools for Planning and Fulfilling Academic Requirements

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Master of Arts: Political Science

Student Learning Outcomes

Students graduating from this program will:

- Describe the fundamental theories and key concepts in American politics, comparative politics, and international relations.
- Synthesize and critique the literature in American politics, comparative politics, and international relations.
- Assess a research question by defining concepts, and collecting, measuring, and analyzing data.

Program Requirements

The Master of Arts degree in political science requires the successful completion of either of the following sets of requirements:

- Non-Thesis Option - 30 semester hours of approved coursework.
- Thesis Option - 24 semester hours of approved coursework and 6 hours of thesis (POL-SCI 5599). Students must gain permission to write a thesis. Permission to do so depends on the quality of the thesis proposal, the student's writing skills, and the ability of the Department to supervise the student in the subject area of the proposed thesis. An oral defense of the thesis is required.

Required Coursework

All M.A. candidates must successfully complete the following courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL-SCI 5501</td>
<td>Seminar in American Government</td>
<td>3</td>
</tr>
<tr>
<td>POL-SCI 5513</td>
<td>Seminar in Comparative Politics</td>
<td>3</td>
</tr>
<tr>
<td>POL-SCI 5530</td>
<td>Seminar in International Relations</td>
<td>3</td>
</tr>
</tbody>
</table>

With permission of the principal M.A. advisor, students may transfer six credit hours of graduate work from other institutions, and may count no more than six credit hours of pre-approved graduate coursework in other UMKC departments.

Candidates also may take up to six credit hours of 300- or 400-level coursework in political science at UMKC and count them toward the M.A. degree. For a 300- or 400-level course to be accepted for graduate credit, a student must arrange with the instructor in advance to do supplementary work (such as additional reading, writing, and contact hours) and earn at least a B in the course. In addition, the student must not have previously taken an equivalent course at UMKC or elsewhere.

In either the thesis option or the non-thesis option, no more than six hours of readings, independent study or directed studies credit (other than thesis hours) may be counted toward the requirements for the M.A.

In all cases, students in the M.A. program must take at least 15 hours of graduate-level (5500-level) courses in political science at UMKC in fulfillment of their degree requirements. In addition, University of Missouri rules mandate that students in graduate programs must take at least 60% of their course work at the graduate level. Applied to the M.A. program in political science, this means that students must complete at least 18 graduate hours. Graduate courses taken at UMKC in political science and other programs, graduate transfer hours, and thesis hours all count toward fulfillment of this requirement.

Students should consult the MA program faculty advisor upon enrolling to develop a program of study, and meet regularly with the advisor to ensure timely progress toward completion of the degree while meeting their needs and interests in graduate study.

Other information about the Master of Arts in Political Science may be found on the department’s website: http://cas.umkc.edu/politicalscience/degree-programs/graduate/master-of-arts-in-political-science/

JD/MA in Political Science Dual Degree Program

The Department of Political Science and the UMKC School of Law offer a dual degree program for the J.D. and M.A. Students must satisfy the admission and degree requirements for each school and program. Students fully admitted to the School of Law are exempt from the GRE requirement for admission to the M.A. program. For further information, contact the School of Law or the Department of Political Science. Additional information can be found on the department’s website: http://cas.umkc.edu/politicalscience/degree-programs/graduate/jd-ma/.
Dual BA/MA Program in Political Science

Student Learning Outcomes

Students graduating from this program will:

- Compare and contrast American government with democratic and non-democratic regimes.
- Enumerate the key questions that animate the field of political science.
- Analyze both positive and normative questions of power and governance.
- Analyze a key political debate.
- Communicate effectively in oral presentations of their analyses of key political debates.
- Describe the fundamental theories and key concepts in American politics, comparative politics, and international relations.
- Synthesize and critique the literature in American politics, comparative politics, and international relations.
- Assess a research question by defining concepts, and collecting, measuring, and analyzing data.

BA Requirements

The requirement for a major in political science is 30 hours of political science credit. Students must achieve a GPA of at least 2.0 in political science and no credit will be given for courses in which the grade is below C-.

At least 21 hours of political science coursework must be at the 300- to 400- level, and at least 12 hours must be earned at UMKC. Students transferring from other institutions should check with the department’s undergraduate advisor as soon as possible to determine which of their hours will transfer for political science credit.

Required Coursework (12 hours)

Students must complete the following four courses:

- POL-SCI 210 American Government
- POL-SCI 220 Introduction To Comparative Politics
- POL-SCI 302 Political Research And Analysis
- POL-SCI 492WI Senior Seminar (Capstone)

Remaining Coursework (18 hours)

Students are required to take at least one course in three of four subfields, which include American Politics, Comparative Politics, International Relations, and Political Theory. Nine additional political science hours must be completed. As part of their additional nine hours, students may complete an internship, study abroad, or an independent study. Please see your major advisor for more information.

2. Comparative Politics (304, 316, 355, 357, 359, 365, 369, 425)
4. Political Theory (301, 341, 344, 403, 440, 442)

MA Requirements

Students pursuing the MA as part of the dual BA/MA program will complete 30 hours of political science coursework; 9 hours of course work at the 300/400 level from the undergraduate degree may be counted toward the graduate degree.

Required Coursework (18 hours)

All BA/MA students must complete the following six courses:

- POL-SCI 5501 Seminar in American Government
- POL-SCI 5530 Seminar in International Relations
- POL-SCI 5580 Government And Politics Seminar
- POL-SCI 55XX Research Design
- POL-SCI 302 Political Research And Analysis
- POL-SCI 55XX Quantitative Analysis II

Remaining Coursework (12 hours)

Students are required to complete an additional twelve hours. Please see the graduate advisor for more information.
Restrictions
With the permission of the graduate advisor, students may count no more than six credit hours of pre-approved graduate coursework in other UMKC departments.

No more than six hours of readings, independent study, or directed studies credit (other than thesis hours) may be counted toward the requirements for the MA.

As part of the BA/MA degree, students may count nine hours of undergraduate coursework toward their BA and their MA. For a 300- or 400-level course to be accepted for graduate credit, a student must arrange with the instructor to do supplementary work such as additional reading, writing, and contact hours). In addition, the student must register and pay for the course at the graduate student rate.

In all cases, students in the MA program must take at least 15 hours of graduate-level (5500-level) courses in political science at UMKC in fulfillment of their degree requirements.
Interdisciplinary Ph.D.
Program Opportunities
The Department of Political Science participates as a co-discipline in the Interdisciplinary Ph.D. program. Detailed information on the general and discipline-specific requirements (p. 1300) appears in the School of Graduate Studies (p. 1185) section of this catalog.
Teacher Certification in Social Studies

Certification as a middle school (grades 5-9) or secondary (grades 9-12) social studies teacher in either Kansas or Missouri requires that a student complete specific requirements in History, Political Science, Economics, Geography, Behavioral Sciences and the School of Education. A separate application for teacher education is required. For further information about the program, consult the School of Education (p. 1018) section of this catalog or contact the Education Student Services Office at (816) 235-2234.
Pre-Law Program

Pre-Law Advisor:
Nick Chappell
chappellnm@umkc.edu
(816) 235-5874
Scofield 9
711 E. 51st Street
http://cas.umkc.edu/prelaw

UMKC Pre-Law Program

The UMKC Pre-law Program is designed to help you make wise decisions about becoming a lawyer. It provides advice and information concerning the best possible path for each individual student, from the first semester of undergraduate courses to admission into law school.

The first thing to note about joining the Program is that it is not a major. There is no one major that prepares you for law school. In fact, there are over 30 majors at UMKC that a student may choose from and be on track for entrance into law school.

To garner the skills necessary for success, the pre-law student should select a curriculum that hones and develops superior writing skills, along with excellent oral communication, logical reasoning, and critical reading skills.

It is not enough, however, to be prepared for the academic rigors of law school. You’ll want to ask yourself the following questions:

- Do you really want to become a lawyer?
- What law schools should you apply to?
- What does it mean to be a lawyer?
- What area of the law do you want to practice in?
- What are the alternative careers available to someone with a law degree?

When you have made the decision to pursue acceptance into law school, you’ll need details on how to go about successfully presenting yourself to the admissions committee in your application. The Program provides answers to the following questions:

- What do you need to do to apply to law school?
- What do you need to do to succeed in law school?
- How can you afford law school?

90+ Program

UMKC’s School of Law and The College of Arts and Sciences offer the motivated student a faster track to a legal education. While an undergraduate degree is usually a requirement for admission into law school, UMKC offers students the opportunity to start law school after completing as little as 90 undergraduate credit hours. Students then complete their undergraduate degree with law school credits. By overlapping credits, students can shorten the length of time necessary for completing their education by as much as one year.

90+ Participation

A student’s first 30 hours at UMKC’s School of Law may fulfill as many as 30 credit hours of non-Arts and Sciences electives towards an undergraduate degree. Therefore, if a student completes all of the general education, major, and upper-level requirements, leaving only elective credits to receive an undergraduate degree, the student may apply to the law school at UMKC.

If accepted, the student can start law school without having actually received an undergraduate bachelor’s degree. The student will receive the undergraduate degree after earning the requisite amount of law school credits necessary to fulfill the remaining amount of undergraduate elective credits (up to 30 hours).

Any student who is pursuing a degree in The College of Arts and Sciences may participate. The 90+ program does not guarantee admission into UMKC’s School of Law. Participants must apply and otherwise qualify for law school admission by having a competitive undergraduate GPA and LSAT score.
Road to Admission

Any interested student should meet early and often with the pre-law advisor. Given the number of requirements that must be satisfied in such a short period of time, potential 90+ students must monitor their progress with great care.

There are a number of necessary tasks to be completed by the student in order to qualify for the 90+ Program:

- The final 30 hours prior to enrolling in UMKC’s School of Law must be from courses in UMKC’s College of Arts and Sciences.
- Requirements to be completed prior to enrollment at UMKC’s School of Law:
  - All general education requirements
  - All major requirements (and those for a minor if student chooses to complete a minor)
  - 36 hours of junior/senior (300/400-level) coursework
- Application for Graduation: After earning approximately 60-75 credit hours, the interested student should apply for graduation in the College of Arts and Sciences Student Services Office (Scofield Room 9). A student will review their degree audit(s) with the pre-law advisor as well as faculty advisors in major/minor programs to confirm status towards degree completion. This should be completed by the end of the fall semester prior to starting law school.
- Letter of Interest: After applying for graduation and completing the audit review, students must contact the pre-law advisor to arrange to have a letter sent to UMKC’s School of Law stating that there is a plan in place that will allow the student to complete all requirements prior to enrolling in the law school the following fall. This process should be done during the student’s last year of undergraduate study.

Six-Year Law Scholars

The Six-Year Law Scholars Program allows high-achieving high school students to prepare for their application to UMKC School of Law through a selective cohort as part of the 90+ Program described above while earning their undergraduate degrees.

- First-time college freshmen who have a minimum comprehensive ACT score of 26 or an equivalent SAT score, and a minimum high school core GPA of 3.5 may apply for admission to this program by completing the general application for admission to UMKC.
- Six-Year Law Scholars will meet regularly with an advisor to ensure that they can complete their undergraduate requirements prior to application to early entry into UMKC School of Law.

Admission Expectations for the UMKC School of Law under the Six-Year Law Scholars Program

- Students who have completed at least 90 degree-acceptable undergraduate hours of credit may be admitted to the UMKC School of Law as long as they have completed all non-elective course work towards their bachelor’s degree.
- Competitive applicants to the Law School will have a cumulative grade point average of 3.3 or higher at the point at which the student applies to the Law School and an LSAT score that is equal to or greater than UMKC Law School’s 50th percentile of the most recent entering class (in 2017, 152).
- All candidates for this program must, during the Law School application process, complete a satisfactory interview with the UMKC School of Law Admissions Committee. Candidates must also demonstrate potential to be a successful law student and an absence of disqualifying character or fitness issues.
- Applicants must otherwise complete all the normal requirements of the law school application process, including but not limited to application through LSAC, personal statement, transcript, letters of recommendation, etc.
- Students admitted under this program must be able to document completion of an undergraduate degree prior to starting their second year of study at the UMKC School of Law.
Department of Psychology

Department Address
Cherry Hall, Room 324
5030 Cherry Street
(816) 235-1318 (Phone)
(816) 235-1062 (Fax - please use cover sheet)
Psychology EMail (psychology@umkc.edu)

Mailing Address
University of Missouri - Kansas City
Department of Psychology
5030 Cherry Street, # 324
Kansas City, MO 64110-9976

Undergraduate Psychology Advising Office (http://cas.umkc.edu/psychology/undergrad/advising.asp)
Cherry Hall, Room 330
(816) 235-1092 (Phone)
(816) 235-1062 (Fax - please use cover sheet)
Undergraduate Psychology Advising Email (umkcpuga@umkc.edu)

For an up-to-date listing of faculty, please visit the Department of Psychology website. (http://cas.umkc.edu/Psychology)

Department Chair:
Tamera B. Murdock

Professors:
Jared M. Bruce, Diane L. Filion, Jennifer D. Lundgren, Joan McDowd, Tamera B. Murdock (Chair)

Associate Professors:
Kymberly K. Bennett, Seung-Lark Lim, Ricardo Marte, Melisa Rempfer

Assistant Professors:
Oh-Ryeong Ha, Erin P. Hambrick, Joah L. Williams

Department Description
The Department of Psychology is focused on behavioral science contributions to health and well-being. Our faculty members are national and international leaders in research on areas such as HIV/AIDS, tobacco use, obesity and eating disorders, neuropsychological functioning, safety and violence and community factors in health. We have strong and active collaborations with important community partners such as Saint Luke’s Hospital, Mid America Heart Institute, KC Care, University of Kansas Medical Center, Truman Medical Center and the Calvary Community Outreach Network. At the undergraduate level, the department offers a general program of study leading to the bachelor of arts degree in psychology. A minor in psychology is available to students majoring in other disciplines. Graduate programs are also offered by the Department of Psychology. See the “Degree Programs” (http://cas.umkc.edu/psychology) link at the Department of Psychology website for information on current graduate degree offerings.

Career Implications of the Degree
Psychology is a broad discipline incorporating material from the natural sciences, other social sciences and the humanities. The study of psychology entails an examination of the human condition that is relevant to a wide range of occupations. A psychology major serves as the basis for an excellent liberal arts education and also serves as an excellent introduction to the world of scientific inquiry. Psychology students learn about the important concepts that underlie current scientific thought and they receive training in the application of psychological research methods.

The educational background obtained by a student majoring in psychology will prove useful in a variety of professional settings and will provide adequate preparation for entry-level positions in a variety of fields. Graduates with bachelor’s degrees in psychology have established careers in such diverse areas as:

- Business and industry
- Child care
- General healthcare
- Gerontology
- Mental health services
- Probation and parole
- Public relations and marketing
• Research or laboratory assisting
• Services for people with developmental disabilities
• Social services

For students interested in pursuing a career in the field of psychology, a psychology major is clearly a logical beginning. There are positions available to job candidates with bachelor’s degrees in psychology; however, most professional opportunities in psychology require advanced degrees (i.e., master’s, doctorate). Students who want to pursue a career in psychology are advised to prepare for graduate study. The psychology major at UMKC offers a solid educational foundation for students who plan to work toward advanced degrees in the field.

Department of Activities

Honor Society
The department has a chapter of Psi Chi, the national honor society in psychology. Each year Psi Chi presents a variety of educational and social programs. Membership is open to students at both undergraduate and graduate levels. Regular meetings are held throughout the academic year. Information about membership and current events is available on RooGroups.

Psychology Club
The department also has a Psychology Club. The members of the Psychology Club join with the members of the Honor Society for educational social programs. Membership is open to students at both undergraduate and graduate level who have an interest in psychology. Regular meetings are held throughout the academic year jointly with PsiChi. Information about membership and current events is available on RooGroups.

Bernard Lubin Memorial Speaker Series
This speaker series is sponsored by UMKC’s Department of Psychology and is named in memory of Dr. Bernard Lubin, Curators’ Professor Emeritus, to honor his contributions and dedication to the field of psychology.

Graduate Psychology Activities Committee
The focus of the Graduate Psychology Activities Committee (GPAC) is to coordinate graduate student and student-faculty social events, enhance communication between the members of various graduate programs in the department, and coordinate educational events to support the professional development of students in the graduate programs. The committee and the events planned are open to graduate students within the Department of Psychology.

Advising System
For Undergraduate Psychology Program information, please contact the Psychology Advising Office at umkcpuga@umkc.edu or (816) 235-1092.

For UMKC College of Arts & Sciences general education requirements, please contact the College of Arts & Sciences Student Services Office directly at (816) 235-1148.

See the Undergraduate Psychology Program Advising website (http://cas.umkc.edu/psychology/undergrad/advising.asp) for more information.

Financial Aid
Financial aid information can be found on the UMKC Financial Aid website at: http://www.sfa.umkc.edu/site2/

Part-time graduate teaching and research assistantship positions may be available to Psychology doctoral students. These opportunities will be discussed with students at the time of their acceptance into the program.

Faculty
For the most current listing, see the Department of Psychology (http://cas.umkc.edu/Psychology) website.

Kymberly K. Bennett¹,² Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=Bennett); director, undergraduate psychology program and associate professor of psychology; B.A. (University of Redlands); Ph.D. (University of Nevada, Reno)

Jared M. Bruce¹,² Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=bruce); associate professor of psychology; B.A. (University of Maine); M.S., Ph.D. (Pennsylvania State University).

Carl Calkins¹ Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=calkins); director, UMKC institute for human development and professor of psychology; B.A. (State University of New York); M.A. (Southern Connecticut State College); Ph.D. (Vanderbilt University).

Diane L. Filion¹,² Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=filion); professor of psychology; B.A. (Eastern Washington University); M.A., Ph.D. (University of Southern California).

Oh-Ryeong Ha¹,² Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=ha); assistant professor of psychology; B.A. (Seoul Women’s University); M.A. (Korea University); Ph.D. (University of Louisville).
Erin P. Hambrick Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=ha); assistant professor of psychology; B.A. (Furman University); M.A. (Western Carolina University); Ph.D. (University of Kansas).

Seung-Lark Lim Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=lim); assistant professor of psychology; B.A., M.A. (Korea University); Ph.D. (Indiana University).

Jennifer Lundgren Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=lundgren); chair, department of psychology and professor of psychology; B.S. (Oklahoma State University); M.A., Ph.D. (University at Albany, State University of New York).

Ricardo Marte Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=mcdowd); associate professor of psychology; B.A. (State University of New York at Binghamton); M.A. (University of Nevada, Reno) Ph.D. (University of Nevada, Reno).

Joan M. McDowd Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=mcdowd); director, Ph.D. program: experimental health psychology option and professor of psychology; B.A. (Washington University); M.A., Ph.D. (University of Toronto).

Melisa Rempfer Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=rempfer); director of clinical training, Ph.D. program; clinical psychology (health emphasis) option and associate professor of psychology; B.S. (University of Iowa); M.A., Ph.D. (University of Kansas).

Joah Williams Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=Williams); assistant professor of psychology; B.A. (The University of the South); M.S. (The University of Memphis); Ph.D. (Medical University of South Carolina, Department of Psychiatry / Ralph Johnson VAMC Consortium).

Retired Faculty
Jim Collins, associate professor emeritus of psychology.

Jay Hewitt, associate professor emeritus of psychology.

Joseph B. Hughey Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=hughey); professor emeritus of psychology; B.A., M.A. (Wichita State University); Ph.D. (University of Tennessee).

Charles L. Sheridan, professor emeritus of psychology.

1 Members of UMKC Graduate Faculty
2 Members of UMKC Doctoral Faculty

Undergraduate

Undergraduate Degrees:
- Bachelor of Arts: Psychology (p. 547)
- Psychology Double Major
- Minor in Psychology (p. 551)

Graduate

Graduate Degrees:
- Master of Arts: Psychology (p. 555)
- Doctor of Philosophy: Clinical Program (Health Emphasis) Option (p. 557)
- Doctor of Philosophy: Experimental Health Psychology Option (p. 561)

Courses
PSYCH 151 College Study Skills and Resources Credits: 3
Course helps Propel students develop critical thinking, time management and academic skills, necessary for success in college and future employment. Students will learn about their individual learning styles and skills as well as the academic resources available to help them develop new skills. They will also explore and use various software and apps to help them stay organized and build self-sufficiency.
Prerequisites: Propel Student.

PSYCH 152 Developing a Person-Centered Life Plan Credits: 3
In this course students in the Propel Program will develop a person-centered plan that will serve as a foundation for their college experience and their future. The course approaches the topic with the belief that people with disabilities are people first and therefore the person-centered life engages the whole person and ensures person-centered supports.
Prerequisites: Propel Student.
PSYCH 153 Communication Skills for Networking, Employment, and Friendship Credits: 3
Through this course, students in the Propel program will gain communication skills, networking skills; learn how to build friendships; and gain important insight on personal safety.
**Prerequisites:** Propel Student.

PSYCH 154 Personal Finance and Disability Services Credits: 3
This course will introduce Propel students to disability services and systems that they will need in their adult lives. A second focus on personal finance will help students understand how disability benefits affect their personal finances.
**Prerequisites:** Propel Student.

PSYCH 155 Developing a Career Credits: 3
Career development is a journey of self-assessment and decision-making. Using an interactive discovery process, students identify possible careers that would match personality type, strengths, interests, skills, and/or values. With Career Center resources, Propel students identify strategies for leveraging the college experience to jumpstart a career.
**Prerequisites:** Propel Student.

PSYCH 156 Transition Skills Credits: 3
Propel students will learn how to identify, report and avoid abuse, neglect, and exploitation. They will also learn about their personal rights, including the right to confidentiality.
**Prerequisites:** Propel Student.

PSYCH 207 Orientation to the Psychology Major Credit: 1
This course provides an introduction to the field of Psychology, and to the Department of Psychology at UMKC. Students will explore major requirements, behaviors associated with academic success, campus resources, and faculty research and teaching interests.

PSYCH 210 General Psychology Credits: 3
A survey of the fundamental principles, theories, and methods of psychological science.

PSYCH 210 - MOTR PSYC 100: General Psychology

PSYCH 252 Psychology of Communicating Your Lived Experience Credits: 3
This course provides frameworks for people interested in communicating their lived experiences with disabilities. This course will not satisfy the College of Arts and Sciences’ Social and Behavioral Science distribution or Humanities distribution degree requirements.

PSYCH 253 Disability Civil Rights Movements Credits: 3
A survey of disability civil rights movements. The course includes such topics as institutionalization and deinstitutionalization, education, protests, civil rights advocacy, and the Americans with Disabilities Act. Students will develop a timeline of disability history milestones and conduct oral history interviews with Kansas City area individuals with disabilities.
**Prerequisites:** Propel Student.

PSYCH 255 Accessible, Inclusive Internships Credits: 3
Through this experiential learning opportunity, students complete an internship with a company, non-profit, governmental or community-based organization. Through a combination of direct observation, reflection, and evaluation, students relate the experience to their academic study and to their career exploration.
**Prerequisites:** Propel Student.

PSYCH 257 Disability History and Culture Credits: 3
An examination of selected political, cultural, economic and social forces shaping disability from historical and present day perspectives. The course is taught with discussions and reflections with local disability leaders.
**Prerequisites:** Propel Student.

PSYCH 258 Leadership and Disabilities Credits: 3
Students learn about leadership theories and develop leadership skills as they apply theory to practical situations.
**Prerequisites:** Propel Student.

PSYCH 270P Compulsive Gambling And Other Addictions Credits: 3
Course will focus on compulsive gambling and the psychology of addiction. Alcohol, drug, food and sex addiction will also be explored. After attending this course, the student will be able to understand the problem gambling continuum, the phases of the problem gambler and how this addiction affects the family.

PSYCH 302 Experimental Psychology Credits: 4
The rationale and methodology of experimentation in psychology, emphasizing interpretation of data and the design of experiments.
**Prerequisites:** PSYCH 210 with a C- or better.
PSYCH 302WI Experimental Psychology Credits: 4
The rationale and methodology of experimentation in psychology, emphasizing interpretation of data, the design of experiments, and writing. Lecture laboratory each week.
Prerequisites: PSYCH 210 with a C- or better; RooWriter.

PSYCH 304 Learning Credits: 3
Survey course of the fundamental principles of contemporary theories of learning.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 305 Psychology Of Women Credits: 3
A critical examination of studies of the psychology and behavior of women.
Prerequisites: PSYCH 210.

PSYCH 307 Academic and Career Opportunities in Psychology Credits: 2
This course explores post-BA career options for students majoring in Psychology. Students will examine psychology-related career opportunities with a bachelor's degree, and options for psychology-related careers after earning a graduate degree. Emphasis will be placed on students developing academic plans that will prepare them for professional success.
Prerequisites: PSYCH 207 (or co-requisite) and PSYCH 210 with C- or better. Must be Psychology BA major and have completed a minimum of 15 credit hours.

PSYCH 308 Sensation and Perception Credits: 3
The study of how we perceive the world through our senses, including the anatomy and function of the sense organs and the effect of normal and altered sensory experience on behavior.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 311 Applied Psychology Credits: 3
The major applications of scientific psychology to human problems and behavior, such as business, mental health, and education are covered. May not be taken for graduate credit.
Prerequisites: PSYCH 210.

PSYCH 312 Social Psychology Credits: 3
Survey of behavior in the actual, imagined, and implied presence of others, including attitudes, the self, conformity, altruism, aggression, prejudice, and group processes. May not be taken for graduate credit.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 316 Quantitative Methods In Psychology Credits: 3
Introduction to the use, calculation, reporting, and interpretation of descriptive and elementary inferential statistical techniques in psychological science. Prerequisites: PSYCH 210 with a C- or better; and MATH 110 or higher.

PSYCH 320 Ethnic and Minority Perspectives in Psychology Credits: 3
The theory, methods and content of psychology relevant to the interests and needs of ethnic minorities, and the contributions of ethnic groups and other minorities to psychology.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 322 Child Psychology Credits: 3
Survey of child development from conception to adolescence, including major theories, developmental milestones and research related to the physical, cognitive, social and emotional growth of children. May not be taken for graduate credit.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 323 Theory and Methods of Personality Credits: 3
The development, organization, dynamics and determinants of personality. May not be taken for graduate credit.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 328 Psychology Of Human Sexual Behavior Credits: 3
The psychological, biological and social factors that contribute to human sexuality, and a review of human sexual development across the lifespan.
Prerequisites: PSYCH 210.

PSYCH 331 Introduction to Health Psychology Credits: 3
A survey of the role of psychological factors in physical health and well-being including in health promotion, disease prevention, and adjustment to illness.
Prerequisites: PSYCH 210 with a C- or better.
PSYCH 405 Motivation and Emotion Credits: 3
A review of the principles of both human and animal motivation from classical drive, behavioral, and cognitive perspectives. May not be taken for graduate credit.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 406P Introduction To Developmental Disabilities Credits: 4
Principles of human development, causes of disability, and the effects of disability on individuals and families over the life span.
Prerequisites: PSYCH 210.

PSYCH 407 Cognitive Psychology Credits: 3
Historical foundations and current state of knowledge regarding human information processing and the mental processes that underlie human behavior.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 407P Developmental Disabilities And Community Life Credits: 4
Focus is on developmental disabilities in community life and interdisciplinary process as a means of coordinating services and supports in community settings. Students will learn about specific disciplines and professions and how they must work together in the community. Topics include the State developmental disabilities network and service system, the principles of person-centered planning, the effects of severe disability on families, and the dynamics surrounding community inclusion of persons with severe disabilities.

PSYCH 415 History And Systems Of Psychology Credits: 3
The historical development of the field of psychology, including a review of its major theoretical schools and methodological advances.
Prerequisites: PSYCH 302WI and PSYCH 316 (C- or better).

PSYCH 418 Brain and Behavior I Credits: 3
Introduction to the neural bases of human behavior, including movement, learning and memory, sensation and perception, emotion, cognition, psychological, and neurological disorders.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 419 Biopsychology II Credits: 3
Advanced study of the neural bases of behavior.
Prerequisites: PSYCH 418.

PSYCH 433 Abnormal Psychology Credits: 3
Introduction to major psychological problems and disorders as well as consideration of some of the many interacting biopsychosocial influences viewed from an empirically-informed perspective. May not be taken for graduate credit.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 440 The Psychology Of Aging Credits: 3
Survey of concepts, theory, and methods in the psychology of aging, including biological and social influences on behavior.
Prerequisites: PSYCH 210.

PSYCH 441 Adult Development and Aging Credits: 3
Major developmental theories of adult development and aging are reviewed, including the impact of cohort, gender, race/ethnicity, socioeconomic status, and culture on development.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 450 Special Topics Credits: 1-3
Offered as the result of student demand, specialized faculty interests, or the availability of a visiting expert in a field related to psychology.

PSYCH 453P Family Life Cycle: Dev Approach Understanding Family Dynamic Credits: 4
The primary purpose of this course is to enhance the student’s understanding of the dynamics of healthy families. After receiving a historical overview of the development of families and the cultural roots and traditions behind family structures, child-rearing values and other factors, the student will be given a framework to understand how healthy families establish a dynamic balance between individual and group needs, and between needs to establish structure and to be flexible in the face of change. A second framework will also be presented to provide students with an understanding of how families use their internal resources to cope with life stressors. Given these basic cultural, interactional, and coping frameworks as foundation for understanding, students will explore how families change as they move through time from formation as a couple through early child-rearing, adolescence, mid-life, and post retirement. Implication for human service professionals will be presented.

PSYCH 461 Field Practicum Credits: 1-6
Provides supervised human services experience in an external community agency or organization that addresses human or social problems.
Prerequisites: PSYCH 210 with a C- or better.
PSYCH 461A Field Practicum Credits: 4
Provides supervised experience working in community agencies/organizations which address various human and social problems. A minimum of ten hours per week at practicum site and class attendance are required.
Prerequisites: PSYCH 302WI; at least 15 credit hours of psychology.

PSYCH 490 Directed Individual Research Credits: 1-6
Students work on an individual research project under the supervision of a departmental faculty member.

PSYCH 491 Psychology Research Externship Credits: 1-6
Provides supervised research experience in an external community agency or organization that examines basic or applied research questions.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 495WI Contemporary Issues in Psychology Credits: 3
In-depth analysis of a contemporary issue in psychology. Emphasis will be placed on reading and writing about empirical approaches to contemporary challenges in psychological science.
Prerequisites: PSYCH 210 with a C- or better; PSYCH 302; Roo Writer.

PSYCH 5504 Contemporary Issues In Learning Credits: 3
A discussion and analysis of recent research and theoretical papers in learning. The student will have to demonstrate undergraduate competence in learning in the first few weeks of this course in order to remain enrolled.

PSYCH 5505 Motivation Credits: 3
The definition of the concept of motivation is explored. Emphasis is placed upon integration of the concept of motivation into comprehensive theoretical explanations of phenomena. Students should have in their background a foundation in Learning Theory (or at least Theory Construction) and Experimental (Scientific Method). Previous laboratory experiences are desired.

PSYCH 5507 Cognitive Psychology Credits: 3
An overview of the cognitive approach to the study of human behavior. Recent research and theoretical issues in the areas of perception, memory, and concept formation are emphasized.

PSYCH 5509 Assessment 1: Intellectual And Cognitive Assessment Credits: 3
This course is designed to provide students with a foundation in the use of intellectual and cognitive assessment instruments in clinical evaluation. The course covers theoretical issues pertinent to intellectual and cognitive assessment, as well as basic assessment skills including administration, scoring, interpretation, and communication of results for commonly used measures.

PSYCH 5510 Assessment Methods In Professional Counseling Credits: 3
This course provides an understanding of assessment process and assessment techniques. Skills and practice in selection, administration, and interpretation of representative assessment instruments. Two semester hours lecture, two semester hours lab experience per week.
Prerequisites: Course on assessment of intellectual functioning.

Cross Listings: CPCE 5515.

PSYCH 5511 Principles Of Assessment In Psychology Credits: 3
This will be a field practicum course in which test batteries will be used to assess and evaluate the intelligence, personality, and aptitude of the individual.
Prerequisites: PSYCH 5510.

PSYCH 5512 Contemporary Issues In Social Psychology Credits: 3
A critical survey of the recent literature in social psychology with emphasis on experimental investigations.

PSYCH 5515 Advanced Systems And History Of Psychology Credits: 3
In depth review of the major theoretical systems of psychology in terms of historical assumptions, methodologies and developments with the goal of enabling the student to better evaluate current theories and assumptions in psychology.

PSYCH 5516 Quant Analysis 1: Regression And Analysis Of Variance Credits: 3
This graduate level statistics course for students in education and the behavioral sciences provides a strong conceptual understanding of two major statistical procedures with the context of the general linear model: multiple regression and numerous analysis of variance (ANOVA) models. Students will learn to select appropriate statistical techniques, tests the assumptions of the techniques, analyze data using statistical software, and report the results of their analyses in the format of the American Psychological Association (APA, 2002).
Prerequisites: EDUC-R&P 5505, PSYCH 316.

Cross Listings: EDUC-R&P 5605.
PSYCH 5517 Quantitative Analysis II: Advanced Topics In Regression And Mda Credits: 3
This graduate level statistics course for students in the behavioral sciences and education provides a strong conceptual understanding of advanced topics in regression (interaction effects, logistic regression, path analysis) and various multivariate techniques (MANOVA, canonical correlation, factor analysis). Students will complete a series of data based projects that allow them to demonstrate their skills in analysis, reporting and interpretation of findings.
Prerequisites: EDUC-R&P 5605 / PSYCH 5516 and EDUC-R&P 5505.

Cross Listings: EDUC-R&P 5606.

PSYCH 5518 Advanced Biopsychology Credits: 3
This course assumes that the student has mastered the basics of biopsychology, and deals with this topic in greater depth and scope than PSYCH 418. It will begin with a brief review and update of basic materials of neuroanatomy, neuronal conduction, and synaptic transmission but will quickly turn to an emphasis on biological influences on human psychology, in particular those biological factors that are of practical significance in the lives of patient and non-patient populations.
Prerequisites: PSYCH 418 (or equivalent).

PSYCH 5521 Advanced Social Psychology Credits: 3
The study of the individual in a social context. How social structure and interaction influence the behavior of an individual. Several contemporary systematic positions will be compared.

PSYCH 5522 Contemporary Issues In Developmental Psychology Credits: 3
A discussion of recent research literature in developmental psychology leading to an individual research project in this area.

PSYCH 5523 Seminar Personality Theory And Methodology Credits: 3
A study of the social-cultural, trait, learning, perceptual, motivational, and field theories of personality with special emphasis on research studies and the methodology of personality research.
Prerequisites: PSYCH 323.

PSYCH 5530 Addressing Health Disparities through Community-based Participatory Research Credits: 3
The purpose of this course is to familiarize students with the principles of community-based participatory research as a strategy to reduce health disparities. Students will learn how CBPR principles are applied across the research continuum for developing new community partnerships, conducting needs assessments, developing culturally-appropriate health promotion interventions in collaboration with community-based organizations, and packaging health interventions for dissemination in minority communities. This class is organized with a service learning component which will require students to work with a local community-based organization on a health issue for which there is joint interest.

PSYCH 5533 Psychopathology Credits: 3
A review of the experimental-clinical literature concerning the behavior disorders with special reference to their classification and etiology. Course generally will be restricted to students enrolled in license-eligible specialties who have had an undergraduate course in abnormal psychology.

PSYCH 5538 Development And Evaluation Of Assessment Tools Credits: 3
This survey course examines test theories, construction, and measurement theories. Within the context of a variety of conceptual frameworks and examples, students become knowledgeable about the various purposes, approaches, and computer software tools for measurement.
Prerequisites: PSYCH 5516 and PSYCH 5517.

PSYCH 5540 The Psychology Of Aging Credits: 3
This course will identify major issues concerning psychology related to aging. The major influences on the behavior, cognitive functioning and emotions of older adults will be examined. Consideration will be given to individual, group and environmental influences. Possible interventions will be identified. Cross-sectional and longitudinal research will be reviewed in order to examine the changes in individuals due to aging and the differences between cohort groups. Three major areas of information will be the focus: concepts, theory and methods in psychology of aging; biological and social influences on behavior; and behavioral processes. There will be a review of current literature.

PSYCH 5543 Adult Development And Aging Credits: 3
This course will identify major themes and issues of mid-life and older adults. It will examine major developmental theories of adult development and aging. A contextual approach is stressed, including research and theory on the impact of cohort, gender, race/ethnicity, socioeconomic status, and culture on development. Application to real life is integrated throughout the course. There will be a review of current literature.

PSYCH 5550 Field Practicum Credits: 4
Provides supervised experience working in community agencies/ organizations which address various human and social problems. Students receive training in community service oriented skills and approaches, e.g., advocacy, community organizing, program assessment, development and evaluation, outreach, and applied research. Ten hours per week at practicum site and class attendance are required.

PSYCH 5575 Professional Issues And Ethics In Psychology Credits: 3
Ethical and legal problems of research and practice will be discussed. Professional organizations in psychology and their publications will be reviewed.
PSYCH 5575A Professional Issues & Ethics Credits: 3
PSYCH 5580 Special Topics Credits: 1-3
PSYCH 5580AD Special Topics Credits: 1-3
PSYCH 5580SM Special Topics Credits: 1-3
PSYCH 5582 Community Mental Health Credits: 3

A review of current theory and research. The emphasis is on prevention rather than treatment of mental health problems. The assets and liabilities of neighborhood communities for mental health problems will be discussed. Recent methods in crisis intervention are reviewed. Each student will be required to become familiar with a neighborhood with a high incidence of application for mental health care.

PSYCH 5586 Theory, Research And Practice Of Consultation Credits: 3

Theory and research on community, mental health, organizational and agency consultation. Entry, process, outcome and ethical issues surrounding each model of intervention will be explored. Each student will be expected to conduct and report on a consultation project.

PSYCH 5590 Directed Research Credits: 1-6
PSYCH 5597 Directed Readings In Psychology Credits: 3

Intensive readings in areas of joint interest to the enrolled student and the cooperating faculty.

PSYCH 5599 Research And Thesis Credits: 1-9

PSYCH 5601 Experimental Methods In Design And Analysis I Credits: 3

An examination of multifactor and multilevel designs and interactions. Topics covered will include randomized block designs. Latin square designs, complex trend analysis designs, covariance designs and multiple comparison of treatment means.

PSYCH 5604 Field Practicum In Community Psychology Credits: 3

Supervised experience in health care, social welfare, correctional, political, ethnic, and neighborhood agencies. May be repeated six times for up to 18 credit hours.

PSYCH 5611 Theories & Methods Of Assessment & Intervention/Community Psych Credits: 3

Review of the assessment and intervention literature in social situations will be conducted. Students will design and carry out an assessment and an intervention project.

PSYCH 5612 Program Evaluation And Research Dissemination Credits: 3

A study of the area of applied research in which process and outcome characteristics of programs are related explicitly to a set of values, such as program goals, objectives and costs.

PSYCH 5614 Prevention Science I: Theories, Principles And Methods Credits: 3

Course provides a comprehensive overview of the field of prevention emphasizing basic concepts, conceptual models, and approaches associated with prevention in the field of psychology. The goal is to provide knowledge that will allow students to critically evaluate prevention programs in their communities. Students apply their learning by conducting a critical analysis of an existing community prevention and/or health promotion initiative.

PSYCH 5615 Prevention Science II: Applications Credits: 3

This advanced seminar is the follow-up course to Prevention Science I. Emphasis is placed on the application of prevention science to specific content areas (e.g., substance abuse, violence in schools physical or sexual abuse, AIDS/HIV infection, infant mortality, cardiovascular disease, promoting social competence.) A semester project involves an in-depth review of prevention efforts in the chosen area of interest, resulting in a comprehensive research proposal and/or public policy analysis.

Prerequisites: PSYCH 5614.

PSYCH 5622 Theoretical And Ethical Issues In Professional Psychology Credits: 3

This course is designed to introduce first year doctoral students to the fundamental concepts and methods of psychology conceived as the application of scientific and ethical reasoning to human problems. It will provide an in-depth examination of the American Psychological Association code of ethics and its application to the conduct of psychologists. Critical and analytical thinking will be emphasized in all aspects of the course. The course will cover broad models of clinical and counseling psychology and their historical and scientific foundations, issues in diagnosis, cross-cultural applications and professional problems in light of ethical principles, professional standards, scientific data multicultural contexts.

PSYCH 5623 Methods Of Counseling In Professional Psychology Credits: 3

This course is designed to introduce students to the fundamental concepts and methods of counseling in professional psychology. Students will apply ethical and multicultural principles to the helping relationship while learning the basic methods of humanistic, psychodynamic, and cognitive behavioral approaches as they related to the helping process. A main focus of this course is the acquisition of basic helping skills. Students will also become familiar with counseling outcome research and will increase their level of counselor self-awareness.

Prerequisites: PSYCH 5622.

Cross Listings: CPCE 5530.
PSYCH 5625 Health Research Methods: Intro To Epidemiology & Clinical Trials Credits: 3
This course will introduce graduate students in health-related disciplines to research methods utilized in understanding disease and health risk in humans and conducting intervention trials. Students will learn about how epidemiology contributes to: 1) identifying factors that cause diseases; 2) assessing the public health importance of diseases; 3) describing the natural history of diseases; and 4) evaluating procedures for preventing or treating diseases. After completing this course, students should be able to read and summarize epidemiological research papers and answer questions about a study's purpose, design, methods of procedure, results, and major strengths and weaknesses.
Prerequisites: graduate standing; PSYCH 5601, (or equivalent).

PSYCH 5631 Theoretical Foundations Of Health Psychology Credits: 3
This course will introduce students to the theoretical foundations of health psychology, including the Biopsychosocial model, individual and systems level theories of behavior change, stress and coping, disease prevention and health promotion, as well as adherence and relapse models. Upon completion of this course students will possess a broad understanding of how cognitive, behavioral, and social factors interact with biological parameters in influencing morbidity and mortality. In addition, students will become familiar with several substantive areas (e.g., chronic pain, HIV/AIDS, cancer, sleep disorders, cardiovascular risk reduction), research methods, and multicultural and ethical issues in health psychology.

PSYCH 5632 Health Psychology Interventions Credits: 3
This course will introduce students to a wide range of psychological assessment and intervention strategies that can be used in health care settings. Individual, group, community and policy interventions will be discussed. This course may be used for credit in the Health Psychology Discipline of the Interdisciplinary Ph.D. Program.
Prerequisites: PSYCH 5631.

PSYCH 5638 Seminar In Health Care Leadership Credits: 3
This course is designed to offer an educational experience that fosters both the knowledge and skills needed for leaders of healthcare in the future. The instructors will guide students through the process of generating new thinking, creating new knowledge, and enhancing interpersonal and professional effectiveness. Course topics will include what creates health and quality of life, social capital and health, healthcare policy, collaborative problem-solving, and transformational leadership and systems thinking.

PSYCH 5650 Clinical Practicum Credits: 1-6
Advanced supervised assessment and psychotherapy with individuals and groups in applied settings. Preregistration by application to instructor at least 60 days prior to the beginning of the semester. Approval by Psychology Director of Clinical training required.
Prerequisites: PSYCH 5623.

PSYCH 5660 Clinical Health Psychology Internship Credits: 1-6
Planned sequence of training experiences in an organized program designed to prepare students for the practice of professional psychology.

PSYCH 5696 Pre-Dissertation Credits: 1-12
Individualized research experiences to prepare students for the conduct of the dissertation.

PSYCH 5699 Research And Dissertation Credits: 1-16

PSYCH 5899 Required Graduate Enrollment Credit: 1

PSYCH H210 General Psychology Credits: 3
A survey of the fundamental principles, theories, and methods of psychological science.
Bachelor of Arts: Psychology

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

• Describe psychology’s content domains.
• Engage in integrative, science-based reasoning to interpret behavior and solve problems.
• Apply ethical standards to science and practice, and promote community at local, national, and global levels.
• Effectively write, speak, and interact with others.
• Apply psychological content and skills to career goals, and develop professional direction for life after graduation.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Focus B</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>Focus C</td>
<td>(May be satisfied by the Constitution course requirement below)</td>
<td></td>
</tr>
<tr>
<td>Focus Elective</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
</tbody>
</table>

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits: 21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td>1</td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ALEKS Math Placement</td>
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<td>6</td>
</tr>
<tr>
<td>Arts and Humanities Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Science and Math Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Foreign Language (3rd Semester Level)</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course)</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
<td>1</td>
</tr>
<tr>
<td>Laboratory Science Experience</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 31

1 ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

2 This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

Major Requirements

Majors are required to complete a minimum of 34 hours of coursework in psychology. The major is comprised of general, core area, and elective courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PSYCH 207</td>
<td>Orientation to the Psychology Major</td>
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<tr>
<td>PSYCH 210</td>
<td>General Psychology (Focus C)</td>
<td>3</td>
</tr>
<tr>
<td>Code</td>
<td>Title</td>
<td>Credits</td>
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</tr>
<tr>
<td>PSYCH 302</td>
<td>Experimental Psychology</td>
<td>4</td>
</tr>
<tr>
<td>PSYCH 307</td>
<td>Academic and Career Opportunities in Psychology</td>
<td>2</td>
</tr>
<tr>
<td>PSYCH 316</td>
<td>Quantitative Methods In Psychology</td>
<td>3</td>
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**Core Area and Elective Courses**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>PSYCH 312</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>or PSYCH 322</td>
<td>Child Psychology</td>
<td></td>
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</table>

**Core Area B**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PSYCH 323</td>
<td>Theory and Methods of Personality</td>
<td>3</td>
</tr>
<tr>
<td>or PSYCH 433</td>
<td>Abnormal Psychology</td>
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**Core Area C**

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>PSYCH 308</td>
<td>Sensation and Perception</td>
<td>3</td>
</tr>
<tr>
<td>or PSYCH 418</td>
<td>Brain and Behavior I</td>
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</table>

**Core Area D**

Select one of the following: 3

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PSYCH 405</td>
<td>Motivation and Emotion</td>
<td></td>
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<tr>
<td>PSYCH 407</td>
<td>Cognitive Psychology</td>
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</table>

**Major Electives**

Select a minimum of three elective courses in psychology 9

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PSYCH 320</td>
<td>Ethnic and Minority Perspectives in Psychology</td>
<td></td>
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<tr>
<td>PSYCH 331</td>
<td>Introduction to Health Psychology</td>
<td></td>
</tr>
<tr>
<td>PSYCH 441</td>
<td>Adult Development and Aging</td>
<td></td>
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<tr>
<td>PSYCH 450</td>
<td>Special Topics</td>
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<tr>
<td>PSYCH 461</td>
<td>Field Practicum</td>
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<tr>
<td>PSYCH 490</td>
<td>Directed Individual Research</td>
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</tr>
<tr>
<td>PSYCH 491</td>
<td>Psychology Research Externship</td>
<td></td>
</tr>
<tr>
<td>PSYCH 495WI</td>
<td>Contemporary Issues in Psychology</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits** 34

1 The remaining hours comprise a minimum of four core area courses and three elective courses. A minimum of one course must be taken from each core area.

2 See Undergraduate Advising (http://cas.umkc.edu/psychology/undergrad/advising.asp) for a complete list of undergraduate psychology courses that may serve as these electives. A maximum combination of 3 credit hours of PSYCH 490 and PSYCH 491 and a maximum of 3 credit hours of PSYCH 461 may be used toward fulfilling elective requirement.

**General Electives**

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>31</td>
</tr>
</tbody>
</table>

**Other Requirements**

Double majors with Sociology or Criminal Justice & Criminology may use the statistics courses taught in those departments (SOCIOL 263 or CJC 210) to fulfill PSYCH 316.

Double majors with the Conservatory may apply up to 6 credits from CONSVTY 342, CONSVTY 395, or CONSVTY 435 toward their psychology electives.

A grade of "C" or higher must be achieved for any course to apply toward the major in psychology. The Undergraduate Psychology Advising Office encourages students to visit each semester to check on degree requirements and registration for courses, and to discuss professional development issues that will prepare students for their careers post-graduation.

**Minimum GPA: 2.0**
Total Credit Hours: 120

General Advice for Developing a Plan of Study

Note that the Department of Psychology varies course offerings each semester. Not all courses are offered every year. Students, with the required prerequisite courses, who are interested in a particular elective or core area course should enroll when it is offered.

Do not plan to complete coursework by taking courses during the summer. The department usually offers some courses during the summer term, but doesn’t guarantee that all required courses will be offered.

Make sure the prerequisites for courses are met prior to enrollment. Students who do not meet course prerequisites will not be allowed to enroll through Pathway.

For questions regarding the Undergraduate Psychology Program, or to schedule an appointment with a Psychology Advisor, please contact the Psychology Advising Office at umkcpuga@umkc.edu or (816) 235-1092.

The Undergraduate Psychology Program is designed to provide majors with a base of scientific knowledge in psychology, as well as a broad background in the field for students who want to pursue graduate study.

See Undergraduate Advising (http://cas.umkc.edu/psychology/undergrad/advising.asp) for more information.

Tools for Planning and Fulfilling Academic Requirements

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit.” In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Psychology Minor

Student Learning Outcomes

Students graduating from this program will:

• Describe psychology’s content domains.
• Engage in integrative, science-based reasoning to interpret behavior and solve problems.
• Apply ethical standards to science and practice, and promote community at local, national, and global levels.
• Effectively write, speak, and interact with others.
• Apply psychological content and skills to career goals, and develop professional direction for life after graduation.

Program Requirements

Eighteen hours of coursework in psychology are required for a psychology minor with at least 9 of those hours at the upper-division level. Of the 18 hours a minimum of nine hours must be completed at UMKC. A grade of "C-" or higher must be achieved for any course to apply toward the minor in psychology.

The following is required of all psychology minors:

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
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<td>PSYCH 207</td>
<td>Orientation to the Psychology Major</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 302</td>
<td>Experimental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 307</td>
<td>Academic and Career Opportunities in Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 308</td>
<td>Sensation and Perception</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 312</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 320</td>
<td>Ethnic and Minority Perspectives in Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 322</td>
<td>Child Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 323</td>
<td>Theory and Methods of Personality</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 331</td>
<td>Introduction to Health Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 433</td>
<td>Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 418</td>
<td>Brain and Behavior I</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 405</td>
<td>Motivation and Emotion</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 407</td>
<td>Cognitive Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 441</td>
<td>Adult Development and Aging</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 450</td>
<td>Special Topics</td>
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<tr>
<td>PSYCH 461</td>
<td>Field Practicum</td>
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<tr>
<td>PSYCH 490</td>
<td>Directed Individual Research</td>
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</tr>
<tr>
<td>PSYCH 491</td>
<td>Psychology Research Externship</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 495WI</td>
<td>Contemporary Issues in Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

See Undergraduate Advising (http://cas.umkc.edu/psychology/undergrad/advising.asp) for a complete list of undergraduate psychology courses that may serve as these electives. A maximum combination of 3 credit hours of PSYCH 490 and PSYCH 491 and a maximum of 3 credit hours of PSYCH 461 may be used toward fulfilling elective requirement.

Minimum GPA: 2.0

Total Credit Hours: 18
Leadership, Employment, and Community Engagement Certificate (PROPEL)

Student Learning Outcomes

Students graduating from this program will:

- Be able to advocate for their disability needs effectively.
- Be able to apply academic knowledge and social proficiencies in a work-based setting.
- Be able to create networks with peers and others.
- Be able to identify possible careers that would match personality type, strengths, interest, skills, and/or values.

The Propel Program is a comprehensive college experience for young adults with intellectual developmental disabilities. Students enrolled in Propel attend UMKC for two years, full-time (12 credit hours/semester; fall and spring semesters) and participate in college courses with students without intellectual disabilities 60% to 70% of the time. The curriculum focuses on the following domains: academic learning; work-based learning and career exploration; social learning; independent living skills; and self-determination. In addition to full-time coursework, students will also have the option of participating in other student activities such as student organizations and service-learning/community engagement. Propel Undergraduate Certificate is housed in the UMKC College of Arts and Sciences, Department of Psychology, and has as its collaborative partner UMKC Institute for Human Development (IHD). This interdepartmental cooperation is between an academic department and the University Center for Excellence in Developmental Disability for the state of Missouri, housed at UMKC IHD. Propel is supported through a grant from the Office of Postsecondary Education, US Department of Education to build a model comprehensive transition program for college students with intellectual developmental disabilities.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>Required Courses</td>
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</tr>
<tr>
<td>PSYCH 151</td>
<td>College Study Skills and Resources</td>
<td></td>
</tr>
<tr>
<td>PSYCH 152</td>
<td>Developing a Person-Centered Life Plan</td>
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<tr>
<td>PSYCH 153</td>
<td>Communication Skills for Networking, Employment, and Friendship</td>
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<tr>
<td>PSYCH 154</td>
<td>Personal Finance and Disability Services</td>
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<tr>
<td>PSYCH 155</td>
<td>Developing a Career</td>
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</tr>
<tr>
<td>PSYCH 156</td>
<td>Transition Skills</td>
<td></td>
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<tr>
<td>PSYCH 255</td>
<td>Accessible, Inclusive Internships</td>
<td></td>
</tr>
<tr>
<td>PSYCH 258</td>
<td>Leadership and Disabilities</td>
<td></td>
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</tbody>
</table>

Electives | 24

Psychology Electives

- PSYCH 252 Psychology of Communicating Your Lived Experience
- PSYCH 253 Disability Civil Rights Movements
- PSYCH 257 Disability History and Culture

Possible Electives from the College of Arts and Sciences

- ART 105 Introduction To Photography
- ART 112 Foundation Drawing
- COMM-ST 110 Fundamentals Of Effective Speaking And Listening
- ECON 100 Economics Explained
- ENGLISH 126 Popular Literature
- ENV-SCI 110R Understanding the Earth: Introduction to Environmental Science and Laboratory
- HISTORY 101 U.S. History to 1877
- HISTORY 102 U.S. History Since 1877
- HISTORY 127 Global Inequality: Slavery in Historical and Archaeological Perspective
- HMNTY 105P Literature, Composition & Critical Thinking: Individual & Society
- HMNTY 202P The Meaning of the American Experience
- MATH 116 Mathematics For Liberal Arts
- PHYSICS 130 Physics of Sports
- PHYSICS 140 How Things Work
- PHYSICS 140L How Things Work Laboratory
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Total Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCIOL 101</td>
<td>Sociology: An Introduction</td>
<td>48</td>
</tr>
</tbody>
</table>

To complete the program, the Propel student needs to finish required Propel certificate courses with a 2.0 GPA or better. Elective courses may be taken pass/fail.
Psychology/Music Therapy Double Major

Student Learning Outcomes

Students graduating with a double major will:

• Describe psychology’s content domains.
• Engage in integrative, science-based reasoning to interpret behavior and solve problems.
• Apply ethical standards to science and practice, and promote community at local, national, and global levels.
• Effectively write, speak, and interact with others.
• Apply psychological content and skills to career goals, and develop professional direction for life after graduation.

Program Requirements

Conservatory of Music and Dance students in the bachelor of arts in music with a music therapy emphasis program, who also want to major in psychology, may apply CONSVTY 342 toward the psychology major as an elective.
Master of Arts: Psychology

Note. Beginning academic year 2012-2013, The Department of Psychology is no longer accepting new students into the Master of Arts in Psychology program. The information that follows is applicable to students accepted to the program prior to Fall 2012. Students enrolled in the Doctor of Philosophy (PhD) in Psychology degree program are eligible for a Master of Arts in Psychology degree as part of the PhD in Psychology degree program. A detailed list of requirements for obtaining a Master of Arts in Psychology degree as part of the PhD in Psychology degree program can be found in the PhD program handbook.

Program Description

Contact Person:
Cathy Rawlings Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=rawlings)

The Master of Arts in Psychology Program prepares students for research careers in academic or community psychology settings. The program involves training in theory, research design and statistics, and the application of principles to real world situations. The program provides advanced training both for recent graduates and for individuals who have been in the work force for a number of years. Although some students subsequently enter doctoral programs and complete Ph.D.s, many immediately accept challenging jobs in the public, private or non-profit sector. Students may complete the program on a full- or part-time basis. However, to ensure the timeliness of training, all program requirements must be completed within five years from admission.

The program is research oriented and provides many opportunities to gain valuable experience in conducting research and includes experimental studies working with human participants in a variety of areas. See faculty interests and on-going projects on the Department of Psychology website. (http://cas.umkc.edu/psychology)

Potential applicants should be aware that the Master of Arts in Psychology program is not designed to prepare students for professional practice as a psychologist. Further, completion of the Master of Arts in Psychology program is not adequate preparation for either the practice of psychology or use of the term “psychologist,” both of which are regulated by state statute. Students interested in the practice of psychology should consider the Clinical Psychology Ph.D. program described under the Department of Psychology listing.

Student Learning Outcomes

Students graduating from this program will:

• To provide students with knowledge and skills in the evaluation, conduct, and dissemination of psychological research.
• To provide students with knowledge of ethical principles and to promote ethical conduct and high professional standards in research and applied situations.
• To provide students with knowledge and skills working with diverse individuals in professional contexts.

Suggested Plan of Study

The program is designed for students who seek rigorous training in research design and statistical analysis. Acquiring skills in these areas will prepare students for additional graduate training as well as for immediate application in a work setting. Quantitatively skilled professionals are employed in a variety of settings including: university departments such as psychology, marketing, management, education, medical and biological research programs, personnel management programs, government, industry, market research firms, large-scale mental testing corporations, software development companies and consulting firms.

One key component of training is six credit hours of a capstone research project, either research and thesis or directed research program evaluation, in which students will, under the direct supervision of faculty, apply the skills they have learned in the classroom to real-world problems and research questions.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 5516</td>
<td>Quant Analysis 1: Regression And Analysis Of Variance</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 5517</td>
<td>Quantitative Analysis II: Advanced Topics In Regression And Mda</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 5530</td>
<td>Addressing Health Disparities through Community-based Participatory Research</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 5538</td>
<td>Development And Evaluation Of Assessment Tools</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 5601</td>
<td>Experimental Methods In Design And Analysis I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Take (6) hours of the following:</td>
<td></td>
</tr>
<tr>
<td>PSYCH 5590</td>
<td>Directed Research</td>
<td>3</td>
</tr>
<tr>
<td>or PSYCH 5599</td>
<td>Research And Thesis</td>
<td></td>
</tr>
<tr>
<td>Psychology Elective</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
Psychology electives must be 5500 level or above, unless prior written approval is obtained from your psychology advisor and the course instructor. Documentation of completion of additional work in undergraduate courses must be filed with the department in order to obtain graduate credit. Refer to the MA in Psychology handbook for elective options.

Courses at the 5500 level or above from other UMKC departments may be used to fulfill these requirements; however, prior written approval from your psychology advisor is required.

**Requirements for Retention**

Note. Beginning academic year 2012-2013, The Department of Psychology is no longer accepting new students into the Master of Arts in Psychology program. The information that follows is applicable to students accepted to the program prior to Fall 2012. Students enrolled in the Doctor of Philosophy (PhD) in Psychology degree program are eligible for a Master of Arts in Psychology degree as part of the PhD in Psychology degree program. A detailed list of requirements for obtaining a Master of Arts in Psychology degree as part of the PhD in Psychology degree program can be found in the PhD program handbook.

A detailed list of requirements for retention can be found in the Master of Arts Psychology Degree Program Handbook.
Doctor of Philosophy in Psychology: Clinical Psychology Option

Contact Person: Cathy Rawlings http://cas.umkc.edu/psychology/GCPhD.asp

Note: The information on the Department of Psychology web pages (link above) supersedes information in this Department of Psychology catalog section, as the catalog is updated only once per year.

The Clinical Psychology (Health Emphasis) Option provides full-time Ph.D. study in the science and practice of clinical psychology. Within this broader context, it also integrates clinical and epidemiological research with the health and life sciences, providing specialized training in clinical health psychology. Our doctoral training seeks to enhance public health, broadly defined, through rigorous training of students (education mission); provide an accessible resource for the integration of behavioral sciences and health research and healthcare (service mission); develop knowledge and enhance health outcomes through empirical research (research and evaluation mission); and incorporate integrity and respect for human and intellectual diversity in all our activities (human mission). Based on a scientist-practitioner model, our clinical training and services are grounded in a commitment to the integration of science and practice. Consistent with the mission of our University to lead in the life and health sciences, our faculty and students are actively involved in research, communities, and healthcare systems to promote a high quality of life for all.

Note: UMKC also offers a Ph.D. in Counseling Psychology through the School of Education. For information on that program, please see http://education.umkc.edu/CEP.

Admission Criteria

Our doctorate is designed for applicants with a prior bachelor’s or master’s level degree. New students are admitted in fall semester only. Because we receive applications from many more qualified individuals than can be admitted, admission is highly competitive (see links to detailed information below). All application materials must be received by December 5 to be considered for admission the following fall. Visit the Clinical Psychology (Health Emphasis) Option (http://cas.umkc.edu/psychology/GCPhD.asp) web page for current application procedures and links to other helpful application resources.

The following are minimum criteria recommended for admission:

1. A bachelor’s degree in Psychology, Counseling, Special Education or other health-related discipline such as Pre-Med or Nursing. Satisfactory completion of prior coursework in Introductory/General Psychology, Experimental Methods/Research Design and Statistics/Quantitative Methods is required. Satisfactory completion of prior coursework in at least two of the following areas is also strongly recommended: Abnormal Psychology, Personality, Biopsychology, Sensation and Perception, Cognitive Psychology, Motivation, Social Psychology.

2. Undergraduate GPA of 3.0 or graduate GPA of 3.5. Alternative criteria may be accepted at the discretion of the admissions committee if there is good reason to believe the regular criteria do not adequately portray the student’s potential to do quality work in the doctoral degree. However, admission to the doctorate is highly competitive, and we seek to admit students with a general history of excellence. A disclosure of the average GPA of students recently admitted to the program can be accessed through the doctorate’s web page.

3. Competitive Graduate Record Examination scores from the general test (GRE Math + Verbal greater than 300; Analytical Writing score of at least 4.5). Students whose scores fall below this recommended minimum may present additional evidence of their capacity to do quality doctoral-level work. Such additional evidence will be considered and accepted at the discretion of the Clinical Admissions Committee. A disclosure of the GRE scores of students recently admitted (http://cas.umkc.edu/psychology/grad/full-disclosure10.asp) can be accessed through our web page.

4. Demonstrated evidence of interest in clinical health research. Our training follows a mentorship model. Therefore, applicants whose research interests are similar to those of the faculty will be given higher consideration. A listing of faculty interests and research can be accessed through the Department of Psychology People (http://cas.umkc.edu/psychology/People.asp) web page.

5. History of personal conduct consistent with the ability to adhere to high standards of student conduct, as outlined in the UMKC Standard for Student Conduct (p. 2286), and professional conduct as outlined by the American Psychological Association (http://www.apa.org) and state licensure boards.

Because clinical and health psychology are empirically-based disciplines, our training emphasizes continuous involvement in research and practice. For this reason, students primarily interested in psychotherapy and clinical or counseling practice without a strong interest in the scientific aspect of the scientist/practitioner model would be better served by other programs.

Typically four students are accepted each year. Applicants are evaluated based on the following dimensions:

1. Academic potential
2. Research potential
3. Interpersonal skills and other indications of potential for clinical work
4. Professional identity and involvement
5. Evidence of high ethical standards

Our training follows the American Psychological Association (http://www.apa.org) Guidelines for Graduate School Offers and Acceptances.
Admission Procedure

New students are admitted in fall semester only. Because we receive applications from many more qualified individuals than can be admitted, admission is highly competitive. A disclosure of relevant data for students recently admitted (http://cas.umkc.edu/psychology/grad/full-disclosure10.asp) can be accessed through the Clinical Psychology (Health Emphasis) Option web page. All application materials must be received by December 5 to be considered for admission in the following fall. Please see the Clinical Psychology (Health Emphasis) Track (http://cas.umkc.edu/psychology/GCPhD.asp) web page for current application procedures (http://cas.umkc.edu/psychology/GCPhD_apply.asp).

Our training follows the American Psychological Association (http://www.apa.org) Guidelines for Graduate School Offers and Acceptances.

Student Learning Outcomes

The Clinical Psychology (Health Emphasis) Option is organized around the following training goals and student learning outcomes:

**Training Goal 1:** To provide students with knowledge and skills in the evaluation, conduct, and dissemination of general psychological and clinical health related research

**Student Learning outcomes:**

1. Students will demonstrate the ability to critically evaluate literature relevant to the science and practice of psychology
2. Students will demonstrate the ability to conduct empirically sound research, including research design and implementation and statistical analysis

**Training Goal 2:** To provide students with entry-level skill in the delivery of evidence-based psychological and clinical health services

**Student Learning outcomes**

1. Students will demonstrate the ability to select, administer, and interpret assessment and diagnostic tools in the context of clinical service delivery
2. Students will demonstrate the ability to select, administer, and evaluate evidence-based psychological and clinical health interventions

**Training Goal 3:** To provide students with knowledge of ethical and professional principles and to promote ethical conduct and high professional standards in research and clinical situations

**Student Learning outcomes**

1. Students will demonstrate the ability to identify and appropriately respond to ethical issues raised in research contexts
2. Students will demonstrate the ability to identify and appropriately respond to ethical issues raised in clinical contexts

**Training Goal 4:** To provide students with knowledge and skills in working with diverse groups of individuals in professional contexts

**Student Learning outcomes**

1. Students will demonstrate the ability to identify the nature and impact of diversity on the administration and interpretation of assessments and the delivery of health services
2. Students will demonstrate the ability to identify the nature and impact of diversity in the conduct of research and its dissemination

Program Requirements

The following represents the program's core curriculum.

<table>
<thead>
<tr>
<th>First Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall Semester</strong></td>
</tr>
<tr>
<td>PSYCH 5509</td>
</tr>
<tr>
<td>PSYCH 5580 or 5632</td>
</tr>
<tr>
<td>PSYCH 5590 or 5599</td>
</tr>
<tr>
<td>PSYCH 5516</td>
</tr>
<tr>
<td>PSYCH 5533</td>
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<td><strong>Total</strong></td>
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<table>
<thead>
<tr>
<th><strong>Second Year</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Fall Semester</strong></td>
</tr>
<tr>
<td>PSYCH 5590 or 5599</td>
</tr>
<tr>
<td>PSYCH 5631 or 5586</td>
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### Third Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Credits</th>
<th>Spring Semester</th>
<th>Credits</th>
<th>Summer Semester</th>
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<td>PSYCH 5696&lt;sup&gt;5&lt;/sup&gt;</td>
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### Fourth Year

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<th>Spring Semester</th>
<th>Credits</th>
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### Fifth Year

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<td>PSYCH 5699&lt;sup&gt;8&lt;/sup&gt;</td>
<td>1</td>
</tr>
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</table>

**Total Credits: 85**

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1. Students are required to officially enroll and accumulate 6 hours of research credit over their first 2 years in the program (6 credit hours of graduate level research credit are required to receive the M.A.). If the master’s thesis project has been waived or completed, _formal enrollment in directed research is still required_. It is expected that all students will be actively involved in research and evaluated on their research performance every fall and winter semesters. Students who have had the M.A. requirement waived need only take 1 credit hour of research in each semester of the second year. However, students will still need to accumulate the additional 8 research credit hours required over and above the master’s thesis requirement to reach the graduate school minimum of 12 research credit hours for the Ph.D.

2. The program requires that students enroll in practicum each regular Fall and Winter semester of the second, third, and fourth years. Students may complete additional clinical hours in summer practicum to improve their competitiveness for internships. Official enrollment is optional, although documentation of supervised hours is required for those to be included.

3. This may be taken during the third year (same semester) instead of the second year.

4. Evidenced Based Clinical Practice and Health Psychology Interventions are both required, however, these courses will offered in alternate years.

5. There are 5 core course requirements (see list at the bottom of the table). In some areas (e.g., Developmental) alternative courses may be used to fulfill the requirement.

6. The graduate school requires at least 12 hours of graduate research credit to graduate with a Ph.D. Our program requires a total of 8 research credit hours (pre-dissertation and dissertation) beyond the 6 required for the master’s thesis for graduation. You may accumulate these hours in any way you wish as long as you complete the additional 8 hours prior to graduation. However you must first pass comps before enrolling in dissertation units.

7. Due to variable internship start and end dates you may only officially complete you internship after the end of the Spring semester. In these cases an incomplete grade will be given until official completion of the internship. Note that the university generally requires students to be enrolled in the semester that they graduate. However, providing all other program requirements have been completed by the end of the spring semester (such as the dissertation) the DCT will request that summer enrollment be waived for students graduating in the summer. If all other requirements are not completed you will be required to enroll in at least one credit (for example, if you dissertation is not yet defended you will enroll in 1 credit of research for the summer semester).
Students who defend their dissertations prior to the 5th year do not register for continuing dissertation hours. Students, fifth year or beyond, who have not successfully defended the dissertation are required to enroll in 1CH of Dissertation each fall and winter semester until it is completed.

### Core Psychology

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 5521</td>
<td>Advanced Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 5507</td>
<td>Cognitive Psychology</td>
<td>3</td>
</tr>
<tr>
<td>or PSYCH 5505</td>
<td>Motivation</td>
<td></td>
</tr>
<tr>
<td>PSYCH 5518</td>
<td>Advanced Biopsychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 5515</td>
<td>Advanced Systems And History Of Psychology</td>
<td>3</td>
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Developmental Requirement, for example:

<table>
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<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>PSYCH 5522</td>
<td>Contemporary Issues In Developmental Psychology</td>
</tr>
<tr>
<td>PSYCH 5543</td>
<td>Adult Development And Aging</td>
</tr>
</tbody>
</table>

### Footnotes about the Core Curriculum

Note: A course number of 5580 denotes a “Special Topics” course. If more than one special topics course is offered in a semester, individual courses will be denoted with letters (e.g., 5580A, 5580B).

+ This represents the currently recommended sequencing of courses. Students may be allowed to alter this sequencing, with prior approval of the faculty advisor and DCT. This sequencing is also subject to change based on course availability in a given semester as determined by the DCT and committee.

### Requirement for Retention

A detailed description of policies and procedures, including the requirements for retention, is available in the student handbook which can be accessed through the Clinical Psychology (Health Emphasis) Option (http://cas.umkc.edu/psychology/GCPhD.asp) web page.
Doctor of Philosophy in Psychology: Experimental Health Psychology Option

Contact Person:

Cathy Rawlings Contact Information (http://cas.umkc.edu/psychology/EHPPhD.asp) http://cas.umkc.edu/psychology/EHPPhD.asp

Note: The information on the Department of Psychology web pages (link above) supersedes information in this Department of Psychology catalog section, as the catalog is updated only once per year.

The mission of the Experimental Health Psychology Option at UMKC is to enhance health outcomes, broadly defined, for individuals and communities. In service of this mission, we offer advanced training in the fundamental areas of experimental psychology, health psychology, and quantitative and methodological approaches for applied psychology. The doctorate training emphasizes the development of research skills and empirical investigation of real-world problems in the life and health sciences. Graduates are prepared for careers in academia, allied health, industry, and government agencies.

The Experimental Health Psychology Option at UMKC provides full time Ph.D. study. Didactic instruction is integrated with research from the beginning of students’ training. Students are paired with a faculty mentor and become part of a lab where they learn how basic research is applied to practical problems and develop the knowledge and skills to carry out original research. These experiences are graded in complexity and designed to foster the development of cumulative knowledge and skill as the student progresses through their training.

Admission Criteria

Our doctoral training is designed for applicants with a prior bachelor’s or master’s level degree. The following are minimum criteria recommended for admission:

1. A bachelor’s degree in Psychology or related discipline. Satisfactory completion of prior coursework in Introductory/General Psychology, Experimental Methods/Research Design and Statistics/Quantitative Methods is required. Satisfactory completion of prior coursework in at least two of the following areas is also strongly recommended: Biopsychology, Cognitive Psychology, Learning, Motivation, Neuroscience, Sensation and Perception, and Social Psychology.

2. Undergraduate GPA of 3.0 or graduate GPA of 3.5. Alternative criteria may be accepted at the discretion of the admissions committee if there is good reason to believe the regular criteria do not adequately portray the student’s potential to do quality work while in the doctorate degree. However, admission is highly competitive, and we seek to admit students with a general history of excellence.

3. Competitive Graduate Record Examination scores from the general test (GRE Math + Verbal greater than 300; Analytical Writing score of at least 4.5). Students whose scores fall below this recommended minimum may present additional evidence of their capacity to do quality doctoral-level work. Such additional evidence will be considered and accepted at the discretion of the Admissions Committee.

4. Demonstrated evidence of interest in health research. The training follows a mentorship model. Therefore, applicants whose research interests are similar to those of the faculty will be given higher consideration. A listing of faculty interests and research can be accessed through the Department of Psychology (http://cas.umkc.edu/psychology/default.asp) People web page.

5. History of personal conduct consistent with the ability to adhere to high standards of student conduct, as outlined in the UMKC Standard for Student Conduct.

A detailed description of the doctorate policies and procedures, including the requirements for retention, is available in the student handbook that can be accessed through the Experimental Health Psychology Option (http://cas.umkc.edu/psychology/EHPPhD.asp) web page.

Admission Procedure

New students are admitted in fall semester only. Because we receive applications from many more qualified individuals than can be admitted, admission is competitive. All application materials must be received by December 5 to be considered for admission the following fall. Visit the Experimental Health Psychology Option (http://cas.umkc.edu/psychology/EHPPhD.asp) web page for current application procedures and links to other helpful application resources.

Student Learning Outcomes

Students completing the Experimental Health Psychology Option will demonstrate:

1. Competence in the evaluation, conduct, and dissemination of research to support independent activity at the next level (e.g., post-doctoral research, academic research, applied research),

2. Ethical conduct and high professional standards in research, including sensitivity to issues of diversity,

3. Knowledge of the theoretical and scientific foundations of health psychology, and

4. Understanding of the breadth of scientific psychology and its application to health psychology.
Program Requirements

The following represents the program’s core curriculum.

### Year I

#### Fall

<table>
<thead>
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<td>PSYCH 5517</td>
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Total Credits: 9

#### Spring

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Total Credits: 9

### Year II

#### Fall

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Completion of Master's Degree

Total Credits: 9

#### Spring

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Total Credits: 9

### Year III

#### Fall

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Comprehensive Exam to advance to candidacy

Total Credits: 9

#### Summer

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Total Credits: 0

### Year IV

#### Fall

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Post-master’s Degree^3

Total Credits: 3

Total Credits: 60

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1. At completion of master's degree: 36 total credits, 12 research credits
2. If students do not defend their dissertation by the end of the 4th year, they must enroll in 1 credit of Dissertation in each succeeding semester until it is completed.
3. Post-master's degree: 24 total credits, 12 research credits

### Code | Title                                                                 | Credits |
<table>
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</thead>
<tbody>
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<td>PSYCH 5521</td>
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<td>PSYCH 5515</td>
<td>Advanced Systems And History Of Psychology</td>
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</tr>
<tr>
<td>PSYCH 5543</td>
<td>Adult Development And Aging</td>
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### Possible Electives

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<tr>
<td>PSYCH 5632</td>
<td>Health Psychology Interventions</td>
<td></td>
</tr>
<tr>
<td>PSYCH 5580</td>
<td>Special Topics (Health Psychology: Community Based Participatory Research)</td>
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</table>
Requirements for Retention

A detailed description of policies and procedures, including the requirements for retention, is available in the student handbook that can be accessed through the Experimental Health Psychology Option (http://cas.umkc.edu/Psychology/EHPPH.D.asp) web page.
Religious Studies

Cockefair Hall, Room 203
5121 Rockhill Road
(816) 235-5704 or 5854
Fax: (816) 235-5723
rel-st@umkc.edu
http://cas.umkc.edu/Religious_Studies

Mailing Address
University of Missouri-Kansas City
Center for Religious Studies
Cockefair Hall 203
5121 Rockhill Road
Kansas City, MO 64110-2499

Program Director:
Dr. Gary L. Ebersole, Cockefair Hall 223B

Professor:
Dr. Gary L. Ebersole (History/Religious Studies), Cockefair Hall 223B

Associate Professor:
Dr. Jeffrey S. Bennett (Sociology/Anthropology), Manheim Hall 206D
Dr. David Freeman (History), Cockefair Hall 211

Description of Program
The Center for Religious Studies offers an interdisciplinary, cross-cultural and socio-historical approach to the study of religion. The Center is a consortium of several area institutions of higher education that have pooled their resources to participate in the UMKC Interdisciplinary Ph.D. program. Students in religious studies are introduced to the many dimensions of religious belief, practice and expression found in human cultures across time and space.

In addition to graduate courses, the Center offers a number of undergraduate courses on topics such as gender and religion, women and religion, the anthropology of religion, and religion in America. Related courses relevant to the study of religion will be found under the listings of other departments and programs.

Courses
RELIG-ST 100 Introduction To Comparative Religion Credits: 3
An introduction to the major religious traditions of the world and small group or tribal religions. Emphasis on the comparative study of selected myths, rituals, types of religious specialists, and types of religious communities.

RELIG-ST 306 History of Christianity to the Middle Ages Credits: 3
This course examines the historical and theological development of Christianity from its origins to the High Middle Ages. The main themes follow the mechanisms and conditions shaping Christianity’s expansion into a major social, institutional, and intellectual force with a focus on patterns of crisis and reform. This course is based on the study of primary sources (both texts and objects) and modern scholarship.

RELIG-ST 307 History of Christianity from Middle Ages to Present Credits: 3
This course examines the historical and theological development of Christianity from the High Middle Ages to the present. The main themes follow the mechanisms and conditions shaping Christianity’s expansion into a major social, institutional, and intellectual force with a focus on patterns of crisis and reform. This course is based on the study of primary sources (both texts and objects) and modern scholarship.

RELIG-ST 400 Special Topics In Religious Studies Credits: 1-3
Special topics in religious studies which are not offered regularly. The focus of the course varies by semester and instructor.
RELIG-ST 400A Special Topics In Religious Studies Credits: 1-3
RELIG-ST 400B Special Topics In Religious Studies Credits: 1-3
RELIG-ST 400C Special Topics In Religious Studies Credits: 1-3
RELIG-ST 400D Special Topics In Religious Studies Credits: 1-3
RELIG-ST 400E Special Topics In Religious Studies Credits: 1-3
RELIG-ST 400F Special Topics in Religious Studies Credits: 1-3
RELIG-ST 401 Religion in America Credits: 3
An in-depth examination of selected aspects of the history of religions in America from the colonial periods to the present. Special emphasis will be given to methodological issues in the study of American religious history.

RELIG-ST 402 Religion and Colonialism in Latin America Credits: 3
The study of selected aspects of the history of religions in the Americas. Primary focus is on the complex ways that European, Native American African religions helped to structure and negotiate the experiences and the significance of cultural contact and colonialism through lived worlds of meaning.

RELIG-ST 403 Vision, Dreams and Prophesies as Religious Phenomena Credits: 3
This course explores the ways visions, dreams, and prophesies have acquired religious significance in Western and non-Western contexts from the ancient period to the present.

RELIG-ST 404 Gender and Religion Credits: 3
Cross-cultural and comparative study of how religious groups create and transmit gender roles and expectations.

RELIG-ST 467 Myth And Ritual Credits: 3
Myth and "ritual" have long been fundamental categories in the study of religion. This course will briefly survey some of the major theories and approaches to the study of myth and ritual from the Enlightenment to the present. The course will not only trace the shifting meanings of "myth" and "ritual", but will critically evaluate the utility of diverse approaches to the study of religious phenomena designated by these terms. Reading will include theoretical works, as well as selected case studies.

RELIG-ST 484 Sacred Narratives and Texts Credits: 3
This course addresses the "social lives" of sacred narratives and texts in selected religions of the world. Areas of study include methods of exegesis in different religious traditions, orality and literacy (including the reoralization of written text), the canonization process, text as amulets, reading and meditative practices and techniques, and narratives and the arts. The course is comparative, cross-cultural, and interdisciplinary in nature.

RELIG-ST 487 Contemporary Approaches to the Study of Religion Credits: 3
This course which is the second installment in a two course series, charts the historical development of religious studies as an academic discipline, paying particular attention to the models, methods and assumptions that have informed it past and present. In this course, particular emphasis will be placed upon the ways the objects and aims of religious studies have shifted from the Second World War to the present.

RELIG-ST 493 Sex & Religion: The Erotic & The Anti-Erotic In Comparative Persp Credits: 3
This course is designed to highlight issues related to the various ways in which religions of the world have integrated, embraced, or repressed one of the most basic human experiences sexual expression.

RELIG-ST 494RS Death In The History Of Religions Credits: 3
As a biological "fact," death would appear to be a human universal. Yet, human beings have imagined--and, thus experienced--the meaning of death in many diverse ways in different cultures and over time. This course explores the conceptualization and representation of death and dying, as well as the ritual activities surrounding death, found in selected religious communities. The goal is to gain insight into how people have sought to (re) create a world of meaning in the face of death and to gain a critical perspective on our own contemporary situation.

RELIG-ST 495RS Time And Space In The History Of Religions Credits: 3
Time and space are essential components of the lived worlds of human beings, yet the cultural and historical constructions of these are remarkably diverse and, moreover, are subject to change. This course is a cross-cultural, interdisciplinary, and comparative exploration of the constructions and experiences of time and space found in selected religious communities and historical periods. In addition, it investigates the pivotal role the categories of "sacred and profane time and space" have played in theorizing religion and in the study of religious myths and rituals in the modern period.

RELIG-ST 496RS The Body In The History Of Religions Credits: 3
The human body is the site of extensive imaginal and ritual activities in all religious traditions. This course explores some of the diverse ways religious communities have imagined and experienced the human body, as well as how the body had been manipulated and worked on in an effort to transform the human situation in the world.

RELIG-ST 497RS Special Topics And Readings Credits: 1-6
Intensive reading and/or research in an area selected by the student in consultation with the instructor. May be repeated for credit when the topic varies.

RELIG-ST 5500 Special Topics In Religious Studies Credits: 1-3
Special topics in religious studies. The focus of the course will vary by semester and instructor.
RELIG-ST 5500A Special Topics In Religious Studies Credits: 1-3
RELIG-ST 5500B Special Topics In Religious Studies Credits: 1-3
RELIG-ST 5500C Special Topics In Religious Studies Credits: 1-3
RELIG-ST 5500D Special Topics in Religious Studies Credits: 1-3
RELIG-ST 5500E Special Topics In Religious Studies Credits: 1-3
RELIG-ST 5500F Special Topics In Religious Studies Credits: 1-3
RELIG-ST 5501A Religion in America Credits: 3
An in-depth examination of selected aspects of the history of religions in America from the colonial period to the present. Special emphasis will be given to methodological issues in the study of American religious history.
RELIG-ST 5502 Religion & Colonialism in Latin America Credits: 3
The study of selected aspects of the history of religions in the Americas. Primary focus is on the complex ways that European, Native American Africans religions helped to structure and negotiate the experiences and the significance of cultural contact and colonialism through lived worlds of meaning.
RELIG-ST 5503 Visions, Dreams, and Prophesies as Religious Phenomena Credits: 3
This course explores the way visions, dreams, and prophesies have acquired religious significance in Western and non-western contexts from the ancient to the present.
RELIG-ST 5504 Gender and Religion Credits: 3
Cross-cultural and comparative study of how religious groups create and transmit gender roles and expectations.
RELIG-ST 5506 The History of Christianity to the Middle Ages Credits: 3
This course examines the historical and theological development of Christianity from its origins to the the High Middle Ages The main themes follow the mechanisms and conditions shaping Christianity's expansion into a major social, institutional and intellectual force with a focus on patterns of crisis and reform. This course is based on the study of primary sources (both texts and objects) and modern scholarship.
Cross Listings: HISTORY 5506A.
RELIG-ST 5507 The History of Christianity from the Middle Ages to the Present Credits: 3
This course examines the historical and theological development of Christianity from the High Middle Ages to the present. The main themes follow the mechanisms and conditions shaping Christianity's expansion into a major social, institutional and intellectual force with a focus on patterns of crisis and reform. This course is based on the study of primary sources (both texts and objects) and modern scholarship.
Cross Listings: HISTORY 5507A.
RELIG-ST 5508 Anthropology of Religion Credits: 3
This course explores the ways anthropologists have gone about studying religion from the opening decades of the 20th century to present. The course introduces students to the diversity of human religious expression and experience through anthropological literature and to the diversity of anthropological expression especially as it has been revealed in social scientific studies of religious life. The course is designed to generate a critical dialogue about the special role that religion has played in the ongoing anthropological engagement with "other" societies and cultures over time.
RELIG-ST 5510 Religions Of The World Credits: 3
This course is designed to introduce graduate students to the major religions of the world, as well as to selected small-group religions. Our goal will be to learn to appreciate the similarities and differences in the structure and history of these religions. A primary focus will be on using the categories of the history of religions to examine and analyze the various dimensions of religion (e.g., historical, sociological, ritual, mythological, aesthetic). In addition, methodological issues of comparison will be addressed.
RELIG-ST 5567 Myth and Ritual Credits: 3
Myth and "ritual" have long been fundamental categories in the study of religion. This course will briefly survey some of the major theories and approaches to the study of myth and ritual from the Enlightenment to the present. Will not only trace the shifting meanings of "myth" and "ritual," but will critically evaluate the utility of diverse approaches to the study of religious phenomena designated by these terms. Reading will include theoretical works, as well as selected case studies.
RELIG-ST 5584RS Sacred Narratives And Texts Credits: 3
This course will study the "social lives" of sacred narratives and texts as they circulate within religious communities. Among the topics to be studied are methods of exegesis in different religious traditions, orality and literacy (including the reoralization of written texts), the canonization process, the emergence of interpretive specialists, text as amulets, reading and meditative practices and techniques, and narratives and the arts. The course is comparative, cross-cultural, and interdisciplinary in nature.
RELIG-ST 5586RS Methodological Approaches To The Study Of Religion Credits: 3
This course examines the various disciplines that undertook the critical, objective study of religion beginning in the second half of the nineteenth century and continuing into the present. The course examines how the disciplines of the social sciences and humanities emerged in the last century and how the study of religion emerged from its roots in Jewish scholarship and Christian theology to be included under the umbrella of the humanities and social sciences. The historical development of religious studies as a historical and intellectual contexts.
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<td>Research Seminar</td>
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<td>RELIG-ST 5592</td>
<td>Cults Sects, And New Religious Movements</td>
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<td>RELIG-ST 5593</td>
<td>Sex And Religion</td>
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<td>RELIG-ST 5594RS</td>
<td>Death In The History Of Religions</td>
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<td>RELIG-ST 5595RS</td>
<td>Time And Space In The History Of Religions</td>
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<td>RELIG-ST 5596RS</td>
<td>Body In The History Of Religions</td>
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<td>1</td>
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School of Social Work

Master of Social Work Program
5030 Cherry Street
(816) 235-1025
Fax: (816) 235-6573
soc-wk@umkc.edu
http://cas.umkc.edu/socialwork

Mailing Address:
University of Missouri-Kansas City
School of Social Work
5100 Rockhill Road
Kansas City, MO 64110-2499

Interim Chair: Dr. Tom Sandreczki

Director of Field Education: Dr. Elaine Spencer-Carver

Educational Program Director: Dr. Larry Dyer

Rosalyn Bertram, Ph.D., Associate Professor (children, child welfare, youth and families, wraparound and multi-systemic collaborative strengths-based practice, evidence-based practice, program implementation and evaluation, systems of care, research)

Betty Blackmon, J.D., Associate Professor (practice, violence across the life span, human behavior, cultural competency)

J. Larry Dyer, Ph.D., Assistant Teaching Professor (cultural diversity, mental health, practice, substance abuse)

Ile Haggins, MSW, LCSW, Assistant Teaching Professor, Coordinator of Field Education (practice, children and family, cultural diversity, and mental health)

Bob Prue, Ph.D., Assistant Professor (social work research methods, open source and freely available software for social workers, interface of indigenous health and healing supports with mainstream, spirituality and social work, veterans’ issues, post-traumatic stress)

Lee Rathbone-McCuan, Ph.D., Professor (social policy and aging, families, international social work)

Patricia Scott, Ph.D., Assistant Teaching Professor (mental health, practice, substance abuse, disabilities)

Elaine Spencer-Carver, Ph.D., Assistant Clinical Professor, Director of Field Education (intimate partner violence, complex trauma, trauma impact on children and families, qualitative research, child welfare)

Department Description
The School of Social Work offers a program of study leading to the master’s in social work degree and a professional career in social work. Started in 1999, the MSW program is the result of collaborative efforts by the University of Missouri System, UMKC and many social service agencies in the Kansas City metropolitan area. The MSW program received initial accreditation in May 2003 with reaffirmation of accreditation granted in 2007.

Mission of the School of Social Work
The mission of the School of Social Work is to "Prepare competent, advanced generalist social work practitioners to meet the needs of multicultural diverse populations in a dynamic mid-western metropolitan context; to be culturally proficient, ethical leaders and service providers engaged in knowledge-driven, inter-professional, multi-systemic, community-based practice; who advocate for social and economical justice, enhance human well being, and support individuals’ capacity to address their own needs."

Mission-derived goals of the School of Social Work are to:
• Prepare culturally proficient advanced generalist social work leaders and practitioners to provide human services for diverse populations.
• Prepare advanced generalist social work leaders and practitioners to engage in interdisciplinary scientific inquiry, and critical thinking.
• Prepare advanced generalist social work leaders and practitioners to develop and implement multi-systemic, multilevel, evidence-based practices.
• Prepare advanced generalist social workers that understand and identify with the social work profession and are committed to upholding the values and ethics of the profession that serve to guide professional practice.
• Prepare advanced generalist social workers to advocate for social and economic justice through collaboration with multicultural diverse communities.
Vision of the School of Social Work

UMKC School of Social Work will become a model urban, professional school recognized for its partnership within diverse communities to effectively collaborate and sustain a safe, more economically secure, and socially just quality of life.

Career Implications

Why consider an advanced degree in social work? Above all, the degree is flexible and versatile. For example, social workers are employed in public social service agencies, nonprofit organizations, medical settings, schools, community-based clinics and residential settings. The social work perspective looks not only at individual thoughts, feelings and actions, but also at the social environment as a primary arena for opportunities for change. On behalf of the people they serve, social workers have strong interests in social policy and advocacy, as well as social science research and policy and program evaluation.

• Social workers have the right education, experience, and dedication to help people help themselves whenever and wherever they need it.
• Social workers help people in all stages of life, from children to the elderly, and from all situations from adoption to hospice care.
• Professional social workers are the nation's largest providers of mental health services.
• According to the Bureau of Labor Statistics, the need for social workers is expected to grow twice as fast as any other occupation, especially in gerontology, home healthcare, substance abuse, private social service agencies, and school social work (BLS, 2010).

Program Description

The program educates Advanced Generalist Social Work practitioners for professional responsibilities at various levels with complex and dynamic human service organizations. To accommodate working students’ schedules, many classes are scheduled for late afternoons, evenings and weekends.

Faculty members and students co-create empowering learning environments through group discussions, role play, experiential occurrences and readings that enable transformational learning.

The practice-oriented curriculum is focused on advanced generalist social work practice in an urban environment. The curriculum provides: theoretically based understanding to assess diverse human behaviors in varied social environments; skills for operating in a multidisciplinary agency and community environment; research methods with practical application to agency practice; and approaches to working with culturally diverse populations.

The full-time, regular MSW program offers a two-year, 60-credit curriculum combining classroom and field experience. For students who already have a B.S.W. degree, the full-time Advanced Standing program includes 36 credits during a spring or summer semester and one full-time year of coursework with a supervised field practicum. Students may attend the part-time program schedule, but must complete the MSW in four years.

The foundation year curriculum includes coursework in generalist social work practice, theory and skills, social policy, human behavior in the social environment, social work research and a generalist field practicum experience in a human service agency approximately 16 hours a week.

The concentration year curriculum focuses on advanced generalist methods within an urban context. The required curriculum includes courses in program evaluation, advance practice methods, and a capstone course (Integration Seminar). Under the guidance of their academic advisor and in light of their career plans, students select four electives with a requirement of at least one elective in Integrative content area and at least one elective in Advanced Methodological approaches to Social Work practice. Finally, a second field practicum for approximately 16 hours a week provides advanced generalist experience and supervision.

Field Practicum

The practicum program uses agencies throughout the metropolitan area to offer experiences at both foundation and advanced levels. Students typically spend approximately two days in the field and are mentored by an MSW practitioner employed by the agency. Students spend a required number of hours in face-to-face contact with clients, in agency meetings, in individual or group supervision, and in the community. In some cases, students who already are social service employees can arrange to complete one year of their field placements at their own agencies. Practicum can also be completed in a student’s human service oriented work site, provided the Director of Field Education approves the same.

Admissions

The majority of applicants to MSW programs have a variety of undergraduate degrees. Some people have life or work experience in other fields and are ready for a career change. Others have worked in the human service field and are ready to pursue an MSW degree to advance in their careers.

• Applicants who hold a baccalaureate degree that, preferably, reflects a broad liberal arts base in the social, behavioral, or psychological sciences, or related disciplines, are encouraged to apply. The baccalaureate degree should be from an institution accredited in a manner accepted by UMKC.
• B.S.W. degrees from accredited programs may be considered for the advanced standing program if students have received a B.S.W. degree within the last five years.
• A minimum cumulative GPA of 3.0 is preferred. However, lower GPAs will be considered for provisional admission when combined with volunteer and work experience, or when there are extenuating circumstances.
• GRE is not required.
• The UMKC application and School of Social Work application are both required. Applicants must provide narratives addressing the following:
  a. Statement of Values and Ethics
     Attach a brief essay (2-5 typewritten, double-spaced pages) in which you address the following: The NASW Code of Ethics may be found at http://www.socialworkers.org/pubs/code/default.asp
     i. Discuss your purpose for pursuing a Master’s in Social Work.
     ii. Compare and contrast your personal value framework with the NASW Code of Ethics’ values and principles.
     iii. In light of the Code of Ethics, what human needs do you hope to address as a professional social worker?
     iv. In light of the Code of Ethics, how will you infuse all of the six ethical principles into your future social work practice?
     v. Describe a personal life experience that challenged your values and ethics. How did you respond to this challenge?
  b. Preparation for Professional Training
     Read the prompts below and provide complete answers including specific examples (2-5 typewritten, double-spaced pages).
     i. Please explain any particular difficulties or successes in your undergraduate academic career.
     ii. How would you evaluate your academic experience up to this point in time?
     iii. Identify how you manage personal and professional challenges in your life.
     iv. What social supports do you have in place (or can you put in place) to assist with managing work, family and academic commitments?
     v. Identify the areas in which you need further learning and growth.
• Advanced Standing Only
  Please provide a 3-5 page typewritten, double-spaced response to the following:
  a. Provide an overview of your field practicum experiences.
  b. Describe lessons learned from your field experiences. Provide specific examples.
  c. How do you think these lessons-learned will affect your future social work field experiences?
  d. In relation to the social work profession, in what areas do you need to further your personal and professional growth?
• Additional Information
  a. Use the forms provided to supply three references. Include a person able to judge your potential for social work (a social worker who has supervised you, an employer, or field instructor) and a person able to judge your writing, critical thinking, and academic potential.
  b. While personal interviews are not required, the MSW Admissions Committee may request a meeting with an applicant. Applicants with questions about the program may attend public information sessions, which are scheduled once a month in the Social Work office. See website for details (cas.umkc.edu/socialwork).
  c. The program is inclusive and draws from a diverse applicant pool. Toward this end, program faculty members make regular community presentations to diverse groups. The program works with student organizations representing women, people of color, gay, lesbian, bisexual, and transgender people, international students, and students with disabilities. Individuals from diverse groups are encouraged to apply.
  d. For additional details, please refer to the Student Handbook pdf file at the School of Social Work website.
  e. UMKC University Application for Admission and its application fee are required. In addition you are required to submit all of the School of Social Work application material.
• Application Checklist
  Please refer to the following checklist before sending materials:
  a. Send to the School of Social Work:
     • Social Work Application for Admission: Online application for both the regular and advanced standing programs is available at http://cas.umkc.edu/socialwork.
     • Statement of Values and Ethics Narrative
     • Preparation for Professional Training Narrative
     • Advanced Standing Narratives (if applicable)
     • Letters of Reference (3): References are submitted with the name of the applicant written across the flap of the envelope.
     • Mailing Address:
       University of Missouri-Kansas City
       School of Social Work
       5053 Cherry Street
       Cherry Hall Room 225
       Kansas City, MO 64110-2499
  1. Send to UMKC Office of Admissions:
     • All undergraduate and graduate transcripts.
     • University Application for Admission: Go to https://www.umkc.edu/apply to begin the online application process.
     • Application fee
You must personally request transcripts from previous schools you have attended. Requests for official transcripts should be made as soon as possible to ensure timely receipt of these documents. In addition, applicants who either currently attend or have attended UMKC must make a new request for transcripts to be reported to the School of Social Work. For transcript assistance, please call (816) 235-1125. Individuals with speech or hearing impairments may call Relay Missouri at (800) 735-2966 (TT) or (866) 735-2460 (voice).

Application Deadlines
Advanced Standing
• October 1 to begin courses in Spring Semester
• February 1 to begin courses in Summer Semester

Regular Program
• March 1 to begin courses in Fall Semester

Note: All completed applications will be reviewed on a first-come, first-served basis

Midwest Student Exchange Program (MSEP)
MSEP is an interstate initiative established by the Midwestern Higher Education Commission to increase educational opportunities for students in its member states. MSEP enables residents of Kansas, Michigan, Minnesota, Missouri, Nebraska and North Dakota to enroll in designated institutions and selected programs outside their home state at reduced tuition levels.

Student Advising
Upon admission into the program, students must:
1. Read student handbook available on our website: cas.umkc.edu/socialwork. (http://cas.umkc.edu/socialwork)
2. Attend student orientation in the Fall/Spring semester.
3. Schedule a meeting with their academic advisor during the academic year to develop a plan of study.
4. Report any changes they make to the plan of study to their advisor.
5. Full-time students must meet the Director of Field Education and complete a field application form to select and finalize field placement.
6. Part-time students must meet the Director of Field Education at the end of their first year in the program, fill out the field application form and finalize field placement before the beginning of their second year in the program.

Professional Status
After graduation, students are well prepared to accept professional social work positions with populations at-risk in a variety of human service, mental health, medical, or community settings.

Both Missouri and Kansas offer an exam to license specialist clinical social workers after two years of supervised practice in direct services. For social workers who plan to practice at this level, Kansas statutes require completion of graduate or continuing education courses in psychopathology and diagnostic skills. Students who are considering clinical licensure in Kansas are encouraged to take SOC-WK 5560 as an elective prior to graduation from the MSW program.

Both Missouri and Kansas offer the following licenses for professional social workers:
• LBSW - Licensed Bachelor's Social Worker
• LMSW - Licensed Master Social Worker

Missouri also offers:
• LAMSW - Licensed Advanced Macro Social Worker

Faculty
Rosalyn M. Bertram Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=bertram); Associate Professor of Social Work; B.A. (San Francisco State University); M.S.W. (San Francisco University); Ph.D. (University of South Florida).
Betty Blackmon  Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=blackmon); Assistant Professor of Social Work; B.A. (Northeastern State University); M.S.W., J.D. (University of Kansas).

J. Larry Dyer  Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=dyer); Assistant Teaching Professor and Interim Educational program Director; B.A. (University of Texas); M.A. (North Texas State University); M.S.W. (University of Kansas); Ph.D. (University of Kansas).

Ile Haggins  Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=haggins); Assistant Teaching Professor and Coordinator of Field Education; BA (Oterbein University); MSW (University of Kansas).

Bob Prue; Assistant Professor of Social Work; M.S.W., Ph.D. (University of Kansas)

Patricia Scott; Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=scott); Assistant Professor of Social Work; M.S.W., Ph.D. (University of Wisconsin).

Elaine Spencer-Carver  Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=spencer-carver); Assistant Clinical Professor and Director of Field Education School of Social Work; B.S. (Stephen F. Austin State University in Nacogdoches, Texas); M.S.W. (University of Kansas); Ph.D. (Kansas State University).

Graduate
Graduate Degree:

- Master of Social Work (p. 576)

Courses
SOC-WK 5510 Foundation Field Practicum I Credits: 3
Students spend 16-hours weekly in a generalist field practicum setting under MSW supervision Participation in a 12-hour integrated field seminar on campus led by faculty is required.
Prerequisites: SOC-WK 5530 or SOC-WK 5531.

Co-requisites: SOC-WK 5532.

SOC-WK 5511 Foundation Field Practicum II Credits: 3
Students continue the field practicum experience from SOC-WK 5510 and participation in the integrated seminar on campus. Focus on generalist knowledge, values, and skills.
Prerequisites: SOC-WK 5510 and SOC-WK 5532.

Co-requisites: SOC-WK 5533.

SOC-WK 5512 Advanced Field Practicum I Credits: 3
Students are placed in a field setting in their chosen field-of-practice concentration approximately 16 hours per week under the supervision of an MSW field instructor. One concentration seminar must be taken prior to or concurrently with entering this field placement.
Co-requisites: SOC-WK 5540.

SOC-WK 5513 Advanced Field Practicum II Credits: 3
Students complete a final semester in their field-of-practice concentration agency setting approximately 16 hours weekly under MSW supervision.
Co-requisites: SOC-WK 5541.

SOC-WK 5530 Human Behavior: Individuals In The Social Environment Credits: 3
This theory course focuses on the interactional context of human behavior essential to all social work practice. A variety of perspectives are considered in the understanding of the individual; developmental, ecosystemic, biopsychosocial, traditional, and alternative. Diversity and resiliency are the key course concepts.

SOC-WK 5531 Human Behavior: Families, Groups, Organizations, And Communities Credits: 3
This course applies social work's ecosystemic framework to the understanding of human behavior in families, groups, organizations, and communities. Knowledge and applied theories and paradigms are examined that honor social justice, human diversity, strengths/assets, and community-building to enhance effective social work practice.
Prerequisites: SOC-WK 5530.
SOC-WK 5532 Foundations Of Social Work Practice I Credits: 3
This course examines the fundamental knowledge, values, and skills of generalist social work practice with a focus on person-in-environment. Course topics include values and ethics, collaborative approaches to helping, stages of the helping process, and beginning practice skills with at-risk populations.
Co-requisites: SOC-WK 5510.

SOC-WK 5533 Foundations Of Social Work Practice II Credits: 3
This second generalist social work practice course examines effective helping approaches with small groups and communities of identity and/or place. The course also introduces values and working styles for professional practice in organizations.
Prerequisites: SOC-WK 5532 and SOC-WK 5510.

SOC-WK 5534 Social Welfare Programs And Policies Credits: 3
This course examines social policies that direct current social service trends at local, state, and federal levels. Students learn a model of analysis that examines the context in which policy decisions are made and the effects that social service programs and policies have on people's lives.

SOC-WK 5535 Social Welfare Policy Practice Credits: 3
This course prepares students with a social justice/empowerment orientation and the knowledge, skills and values needed to become an effective policy advocate, particularly with people who experience the effects of poverty, discrimination, exclusion, and oppression.
Prerequisites: SOC-WK 5534.

SOC-WK 5536 Social Work Research Methods Credits: 3
This course introduces students to the fundamental knowledge and skills of social work research such as practice evaluation, program planning, and other facets of professional social work practice. Emphasis on application of social research methods in actual practice situations will be used to assist students in skill development.

SOC-WK 5537 Quantitative Social Work Research Methods Credits: 3
This course is designed to prepare graduate level students to develop a comprehensive understanding of statistical method application to social work research. Students will gain a basic understanding of the research and statistical procedure that are needed for clinicians/researcher to operate within the field today. Students will become proficient in reading analyzing and assessing the results of social work publications.
Prerequisites: SOC-WK 5536.

SOC-WK 5538 Advanced Standing Seminar: Contemp Trends In Social Work Practice Credits: 3
This required seminar is designed for BSW's entering the Advanced Standing Program and serves to update and integrate social work practice approaches with contemporary perspectives of human behavior in the social environment.
Prerequisites: Advanced Standing Student.

SOC-WK 5539 Adv Standing Sem: Emerging Iss In Soc Welfare Policy And Research Credits: 3
This required seminar in the Advanced Standing Program examines emerging policy issues and research developments in the field. Students prepare to choose a field-of-practice concentration and to enter the Advanced-level year of study.
Prerequisites: Advanced Standing Student.

SOC-WK 5540 Advanced Social Work Practice I Credits: 3
This course prepares students with an advanced generalist social work perspective and to evaluate and integrate theory, values, and skills for assessment and direct practice with complex case situations in a rapidly changing service environment.
Prerequisites: Completion of foundation year.

Co-requisites: SOC-WK 5512.

SOC-WK 5541 Advanced Social Work Practice II Credits: 3
This course extends the advanced generalist model of social work practice to working with challenging families and small groups. The course introduces leadership, organizational, and management competencies for professional practice in social service agencies and skills for coalition-building and collaboration in communities.
Prerequisites: Completion of foundation year.

Co-requisites: SOC-WK 5513.

SOC-WK 5542 Social Services With Older Adults Credits: 3
This course provides an overview of social service practice with older adults. Students examine population demographics, identify normal and abnormal aspects of aging, and examine methods, paradigms, and approaches to effective advanced generalist practice in treatment and community settings.
Prerequisites: Completion of foundation year.
SOC-WK 5544 Families, Communities and Child Welfare Credits: 3
This course examines child centered, family centered and neighborhood based approaches to child welfare.
Prerequisites: Completion of Social Work Foundation Sequence.

SOC-WK 5546 Mental Health and Substance Abuse in Social Work Practice Credits: 3
This course examines current practice approaches and policy/research issues in mental health and in the dually diagnosed. Students focus on service delivery systems of care with a variety of adult populations from an empowerment perspective.
Prerequisites: Completion of foundation year.

SOC-WK 5547 Grief and Loss in Social Work Practice Credits: 3
This course provides a comprehensive study of grief and loss from a professional social work perspective that includes current theories, evidence-based frameworks, and intervention strategies from a strengths-based perspective. The course will address many forms of special losses, such as suicide, homicide, HIV/AIDS, war-related grief, bankruptcy, divorce and other life transitional events that may or may not involve death and dying.
Prerequisites: Completion of all Foundation-level courses.

SOC-WK 5550 Program Evaluation and Management Credits: 3
This course is designed to train students in evaluation of direct practice, community needs and underserved populations. Students develop a new or enhanced model of service delivery to address needs. Strategic planning, management in theories and grant writing and major components of this course.
Prerequisites: Completion of foundation year.

SOC-WK 5560 Psychopathology: A Competency Based Assessment Model in Social Work Practice Credits: 3
The DSM will be used in conjunction with a competency-based assessment model that includes an ecological approach and systems theory to determine what biopsychosocial factors have contributed to the client's problem. The multi-axial system become a tool to gather information, that supports the competency-based assessment.
Prerequisites: Foundation Coursework.

SOC-WK 5561 Social Work in Health Care Credits: 3
This course builds on a foundation of direct social work practice in the context of the health care systems in the United States. The social work role in the medical model will be analyzed along with the roles of nursing and allied health professionals. Collaborative practice will be discussed.
Prerequisites: Completion of Foundation Social Work Courses and a practicum experience.

SOC-WK 5562 Family Organization and Development Credits: 3
This course examines developmental and structural theory that supports family-centered social work practice. Within this theory, the course explores how culture and social class shape family values, beliefs and behavior and how these are manifest in family structure as the family responds to developmental tasks in the context of its community.
Prerequisites: Completion of Social Work Foundation Sequence.

SOC-WK 5563 Life Span Issues in Developmental Disabilities Credits: 3
The need for interdisciplinary process in the human services sector, which supports inclusiveness and quality of life of individuals, is covered. The course covers cultural competence, person-centered and community-based application of services for their implications in planning and delivery of services.
Prerequisites: Students in good standing with the Master of Social Work Program, registered with the Interdisciplinary Leadership in Disability Studies graduate certificate Program.

SOC-WK 5564 Advanced Group Interventions in Social Work Credits: 3
This course provides both a didactic and experiential introduction to advanced group therapy for social work practice, explores the therapeutic factors, norms and their creation, the role of leader and termination as a group experience.

SOC-WK 5565 Systemic Oppression and Social Justice Advocacy Credits: 3
This course presents theoretical concepts of oppression, privilege, and social justice advocacy. Students will examine their social principles and their personal experiences. Social work's core values of social practice will be critically analyzed.
Prerequisites: Completion of Social Work Foundation Sequence.

SOC-WK 5566 Family and Community Violence Credits: 3
Students will consider the sources of interpersonal violence. The causes and forms of community and family violence will be examined in relationship to the impact of individuals, families and communities. Prevention and intervention models will be studied and developed.
Prerequisites: Completion of Social Work Foundation Sequence.

SOC-WK 5567 Collaborative Strengths-Based Practice: Multi-System Interventions Credits: 3
This course examines collaborative models of strengths-based, family-centered social work practice that receive significant funding from SAMHSA NIH. Two models are explored in depth to compare and contrast program implementation when a model is based in values and philosophy vs. a theory-based model. The theory of change for each model is closely examined, as well as research supporting it and related ethical questions regarding assessment and intervention.
SOC-WK 5568 School Social Work Practice Credits: 3
Students will learn the knowledge and skills required for performing roles and functions of school social work in K-12 settings. They will apply social systems and the strengths perspectives within the context of school as organizations interconnected to community environments.

SOC-WK 5569 Core Concepts of Child and Adolescent Trauma Credits: 3
This course prepares students for trauma-informed, evidence-based practice. Based on core concepts, the course uses a problem-based learning approach through the use of in-depth case studies.
Prerequisites: All MSW Foundation Courses.

SOC-WK 5575 Advanced Generalist Community Practice Credits: 3
This seminar covers community social work practice at the advanced level addressing values, knowledge and skills essential for community social change. Models of community practice are addressed to facilitate student skill applicant in social planning, community development, and community collaboration strategies. Each model requires knowledge of large systems practice.
Prerequisites: Completion of 30 hrs or Required Foundation.

SOC-WK 5577 Sexuality and Social Work Practice Credits: 3
This course is a survey of issues that will provide knowledge for integrating human sexuality across a lifespan in the practice of social work. Using a biopsychosocial perspective, emphasis will be placed on historical, political, social, cultural, familial and individual differences in sexual and reproductive attitudes, values and behaviors.
Prerequisites: You must be a student in the Master of Social Work program to take this course.

SOC-WK 5579 Integration Seminar In Advanced Generalist Practice Credits: 3
This course, taken in the last semester, serves as a final integration of advanced generalist competencies in direct practice, organization/management, social action/community building and advocacy, research/evaluation and leadership skills. Students prepare a major project for presentation.
Prerequisites: All other program requirements must be completed or concurrent with Soc-Wk 5579

SOC-WK 5580 Special Topics In Social Work Credits: 1-3
These seminars are designed to examine relevant and innovative areas emerging in social work practice which are not available in the regular course offerings. Topics, instructors, and prerequisites are listed in the semester bulletin.
Prerequisites: Completion of foundation year.

SOC-WK 5580D Special Topics In Social Work Credits: 1-3

SOC-WK 5590 Readings And Investigations In Social Work Credits: 1-3
Under the direction of a faculty member, individual students may pursue an in-depth area of study in generalist social work practice, including a research project of the student's choice.

SOC-WK 5899 Required Graduate Enrollment Credit: 1
One Hour Course required to remain continuously enrolled while the student finishes requirements for the Social Work degree.
Prerequisites: Permission of the Department
Master of Social Work

Student Learning Outcomes

Students graduating from this program will:

- Conduct and articulate ongoing, autonomous self-evaluation of professional practice.
- Articulate and demonstrate the NASW Code of Ethics in professional practice.
- Assess and apply multiple sources of knowledge and information to make practice and program decisions.
- Demonstrate diversity-related knowledge, values, and skills to improve practice and practitioner growth.
- Promote social and economic justice in practice through policy and programmatic advocacy.
- Evaluate practice and use results of research and evaluation to improve programs, policy, and service delivery.
- Use a theoretical framework addressing context, population, and culture in order to analyze, evaluate, assess, and intervene with client systems.
- Integrate policy practice within and across systems to make intervention more effective and comprehensive.
- Provide leadership to recognize and respond to ever-changing population needs.
- Establish a process that encourages participants to be equal partners.
- Select and modify multi-systemic assessment of contributing factors to a practice situation.
- Demonstrate the use of appropriate interventions to address assessed contributing factors to a practice situation.
- Use evaluation of process and outcomes to refine or develop evidence-based practice interventions.
- Utilize personal power and professional privilege for ethical leadership.

Plan of Study

The following course of study is a typical schedule for a full-time student. Enrollment in some elective courses require completion of all foundation study. The plan of study is subject to change.

Regular Program

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td><strong>Foundation Level Courses</strong></td>
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<tr>
<td>SOC-WK 5510</td>
<td>Foundation Field Practicum I</td>
<td>3</td>
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<tr>
<td>SOC-WK 5511</td>
<td>Foundation Field Practicum II</td>
<td>3</td>
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<tr>
<td>SOC-WK 5532</td>
<td>Foundations Of Social Work Practice I</td>
<td>3</td>
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<tr>
<td>SOC-WK 5533</td>
<td>Foundations Of Social Work Practice II</td>
<td>3</td>
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<tr>
<td>SOC-WK 5530</td>
<td>Human Behavior: Individuals In The Social Environment</td>
<td>3</td>
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<td>3</td>
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<tr>
<td>SOC-WK 5534</td>
<td>Social Welfare Programs And Policies</td>
<td>3</td>
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<tr>
<td>SOC-WK 5536</td>
<td>Social Work Research Methods</td>
<td>3</td>
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<tr>
<td>SOC-WK 5537</td>
<td>Quantitative Social Work Research Methods</td>
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<tr>
<td>SOC-WK 5565</td>
<td>Systemic Oppression and Social Justice Advocacy</td>
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<td><strong>Concentration (Advanced Generalist) Courses</strong></td>
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<td>SOC-WK 5512</td>
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<td>SOC-WK 5540</td>
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<td>SOC-WK 5550</td>
<td>Program Evaluation and Management</td>
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<td>Integration Seminar In Advanced Generalist Practice</td>
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<td><strong>Electives</strong></td>
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<tr>
<td>SOC-WK 5542</td>
<td>Social Services With Older Adults</td>
<td>3</td>
</tr>
<tr>
<td>SOC-WK 5544</td>
<td>Families, Communities and Child Welfare</td>
<td>3</td>
</tr>
<tr>
<td>SOC-WK 5546</td>
<td>Mental Health and Substance Abuse in Social Work Practice</td>
<td>3</td>
</tr>
<tr>
<td>SOC-WK 5547</td>
<td>Grief and Loss in Social Work Practice</td>
<td>3</td>
</tr>
<tr>
<td>SOC-WK 5560</td>
<td>Psychopathology: A Competency Based Assessment Model in Social Work Practice</td>
<td>3</td>
</tr>
<tr>
<td>SOC-WK 5561</td>
<td>Social Work in Health Care</td>
<td>3</td>
</tr>
<tr>
<td>SOC-WK 5562</td>
<td>Family Organization and Development</td>
<td>3</td>
</tr>
<tr>
<td>SOC-WK 5563</td>
<td>Life Span Issues in Developmental Disabilities</td>
<td>3</td>
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</tbody>
</table>
### Advanced Group Interventions in Social Work

**Code**: SOC-WK 5564  
**Title**: Advanced Group Interventions in Social Work  
**Credits**: 3

### Family and Community Violence

**Code**: SOC-WK 5566  
**Title**: Family and Community Violence  
**Credits**: 3

### Collaborative Strengths-Based Practice: Multi-System Interventions

**Code**: SOC-WK 5567  
**Title**: Collaborative Strengths-Based Practice: Multi-System Interventions  
**Credits**: 3

### School Social Work Practice

**Code**: SOC-WK 5568  
**Title**: School Social Work Practice  
**Credits**: 3

### Core Concepts of Child and Adolescent Trauma

**Code**: SOC-WK 5569  
**Title**: Core Concepts of Child and Adolescent Trauma  
**Credits**: 3

### Advanced Generalist Community Practice

**Code**: SOC-WK 5575  
**Title**: Advanced Generalist Community Practice  
**Credits**: 3

### Sexuality and Social Work Practice

**Code**: SOC-WK 5577  
**Title**: Sexuality and Social Work Practice  
**Credits**: 3

### Special Topics in Social Work

**Code**: SOC-WK 5580  
**Title**: Special Topics in Social Work  
**Credits**: 1-3

### Readings And Investigations In Social Work

**Code**: SOC-WK 5590  
**Title**: Readings And Investigations In Social Work  
**Credits**: 1-3

### Leadership In Disability Studies: A Multidisciplinary Approach

**Code**: LAW 8815S  
**Title**: Leadership In Disability Studies: A Multidisciplinary Approach  
**Credits**: 3-4

### The Politics Of Administration

**Code**: PUB-ADM 5526  
**Title**: The Politics Of Administration  
**Credits**: 3

### Leadership For Public Service

**Code**: PUB-ADM 5548  
**Title**: Leadership For Public Service  
**Credits**: 3

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1. Open only to concentration year students.

### Advanced Standing Program

Students who have received a Bachelor of Social Work degree from a Council on Social Work Education accredited program, may apply to our MSW program as "Advanced Standing." Advanced standing students must enroll in the following required spring or summer courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>SOC-WK 5538</td>
<td>Advanced Standing Seminar: Contemp Trends In Social Work Practice</td>
<td>3</td>
</tr>
<tr>
<td>SOC-WK 5539</td>
<td>Adv Standing Sem: Emerging Iss In Soc Welfare Policy And Research</td>
<td>3</td>
</tr>
</tbody>
</table>

Advanced standing students then complete concentration level courses.

The graduate social work program grants the M.S.W. degree when students have completed the following degree requirements:

1. 60 credit hours of class (48 hours) and field (12 hours) for regular program students.
2. 36 credit hours of class (30 hours) and field (6 hours) for advanced standing students.
3. To remain in good standing, students must maintain a cumulative GPA of 3.0.
4. Part-time students must complete the program within four years.
5. Students take four electives (12 credit hours) in the concentration year.
Department of Sociology

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5120 Rockhill Road
(816) 235-1116
Fax: (816) 235-1117
hayesra@umkc.edu
http://cas.umkc.edu/sociology

Mailing Address
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Department of Sociology
Haag Hall, Room 208
5120 Rockhill Road
Kansas City, MO 64110-2499

Department Chair:
Deborah B. Smith Email (smithde@umkc.edu)

Professors:
Deborah B. Smith

Associate Professors:
Jeffrey S. Bennett, Marc Garcelon (Coordinator, Sociology Program), Jennifer Huberman, Shannon Jackson (Coordinator, Anthropology Program), Sookhee Oh, Theresa Torres

Assistant Professor:
Michelle Smirnova (Principal Graduate Advisor), Joseph Workman

Associate Teaching Professor:
Ann Marie Wood

Administrative Assistant:

Professors Emeriti:
Linda Breytspraak, Miguel Carranza, Thomas Carroll, Burton Halpert, Philip G. Olson, Peter Singelmann

Department Description
The Department of Sociology offers programs of study leading to:

• Bachelor of Arts in Sociology - two emphasis options:
  • General Sociology
  • Cultural Anthropology Emphasis
• Master of Arts in Sociology

Program minors are available in:

• Sociology
• Anthropology

Sociology is a wide-ranging discipline that strives to understand how the organization of society affects people’s lives and experiences. Our mission is to help students develop a sociological perspective and use this perspective to question and understand the world around them. Students in our program have opportunities to develop critical thinking and research skills and to apply classroom learning through experiences in community organizations and agencies. Department faculty members are committed to excellence in teaching and work to assist students in developing a foundation for moving into a career.

Department Activities

Academic Advising
Student academic advising is a continuous process in the department. Undergraduate advisors are available for consultation throughout the academic year. The department recommends that students check the program requirements in the department office before filing the Declaration of Major form. Undergraduate majors are encouraged to consult with the department to establish a tentative plan of study and to meet with a
department advisor each semester. Students should leave their mail and email addresses with the department office so they can receive notifications concerning the class timetable, new classes, and other departmental information of interest to majors.

Financial Assistance
Students can receive financial assistance through various campus scholarships, loan programs, grants and the work-study program. Students who are interested should contact the Financial Aid and Scholarships Office.

Sociology/Anthropology Club and Sociology Honor Society
The Sociology Club is open to all students majoring in Sociology as well as students who are interested in this field but have not yet declared a major. Club activities include service projects in the community, sponsorship of community speakers on campus, participation in local and regional professional meetings, and learning about internships and research opportunities. The department has a chapter of Alpha Kappa Delta, a national honorary society for Sociology students.

Undergraduate Student Award
A special award was established as a memorial to Edward Tomich, Ph.D., professor of Sociology from 1964 to 1976. Students must submit an application to the department to be considered for the award. On the recommendation of the department faculty, the Edward Tomich Award is given annually to a senior student majoring in Sociology who exemplifies an indomitable spirit; a commitment to the struggle for human welfare; an unquenchable thirst for knowledge and personal growth; an unwillingness to be cowed by authority or the superficialities of status; a readiness to ask the more difficult questions while being ready to accept the uncertainty of answers; and an appreciation of the value of theoretical knowledge about human interaction in everyday life.

Cooperative Programs
The department cooperates with other programs frequently by jointly listing courses at the undergraduate level. Students may benefit from combining one of these areas of study with their major in sociology:

- Black Studies
- Family Studies
- Gerontology
- Honors
- Latina/Latino Studies
- Women’s, Gender, and Sexuality Studies

Desirable Preparation for Undergraduate Admission Requirements
High school students are encouraged to take a general college preparatory curriculum. Additional courses in mathematics, English, foreign languages and the social sciences, such as economics, anthropology, psychology and sociology are recommended. Students planning to transfer from a community college are encouraged to take at least 6 credit hours of sociology (including introductory sociology), and college algebra. A maximum of 12 hours of transfer credits, including introductory sociology, can be counted toward satisfaction of the major field requirements.

Faculty
Jeffrey S. Bennett Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=bennett); associate professor of anthropology and religious studies; B.A. (University of Washington); M.A., Ph.D. (University of Chicago).

Linda M. Breytspraak Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=breytspraak); professor emeritus of sociology and medicine;

Miguel A. Carranza professor emeritus of sociology and latina/latino studies program.

Thomas E. Carroll associate professor emeritus of sociology.

Marc Garcelon Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=garcelon); associate professor of sociology; B.A. (University of Washington); M.A., Ph.D. (University of California at Berkeley).

Burton Halpert associate professor emeritus of sociology and medicine.

Jennifer Huberman Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=huberman); associate professor of anthropology; B.A. (Boston University); M.A., Ph.D. (University of Chicago).

Shannon Jackson Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=jackson); associate professor of anthropology; B.A., M.A. (University of Connecticut); Ph.D. (University of Chicago).
Sookhee Oh\(^1\)^4 associate professor of sociology; B.A. (Ewha Woman’s University, Korea); M.C.P. (Seoul National University, Korea); Ph.D. (Milano Graduate School of Management and Urban Policy, The New School).

Philip G. Olson\(^1\)^4 Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=olson); professor emeritus of sociology.

Clovis Semmes\(^1\)^4 Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=semmes); retired professor of sociology and black studies; B.A., Ph.D. (Northwestern University); M.A. (University of Illinois, Chicago).

Peter M. Singlemann\(^1\)^4; professor emeritus of sociology.

Michelle Smirnova\(^1\)^4 Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=smirnova); assistant professor of sociology; B.A. (Washington University); M.A. (University of Maryland); Ph.D. (University of Maryland).

Deborah B. Smith\(^1\)^4 Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=smith); chair; department of sociology; professor of sociology and director of family studies; B.S., Ph.D. (Cornell University); M.A. (University of Minnesota).

Theresa L. Torres\(^1\)^4 Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=torres); associate professor of sociology and latina/latino studies; B.A. (Benedictine College); M.A. (Boston College); O.S.B. (Order of St. Benedict); Ph.D. (Catholic University of America).

Ann Wood\(^1\)^4 Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=wood); associate teaching professor of sociology; B.A. (Grinnell College); M.A., Ph.D. (University of Kansas).

Joseph Workman\(^1\) Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=wood); assistant professor of sociology; B.A. (Ohio State University); M.A. (University of Notre Dame); Ph.D. (University of Notre Dame)

1 Members of UMKC Graduate Faculty
2 Members of UMKC Doctoral Faculty

**Undergraduate**

**Undergraduate Degrees:**
- Bachelor of Arts: Sociology (p. 591)
- Bachelor of Arts: Sociology with Cultural Anthropology Emphasis (p. 591)
- Minor in Sociology (p. 590)
- Minor in Anthropology (p. 60)

**Graduate**

**Graduate Degrees:**
- Master of Arts: Sociology (p. 595)

**Anthropology Courses**

ANTHRO 103 Introduction To Cultural Anthropology Credits: 3
An introduction to culture and the basic concepts of anthropology. Topics include kinship, language, and cultural change.

ANTHRO 103 - MOTR ANTH 201: Cultural Anthropology

ANTHRO 300 Special Topics in Anthropology Credits: 1-3
Each time this course is offered, a different area of anthropology, to be announced, will be examined. Prerequisite(s); None.

ANTHRO 302 Social Stratification Credits: 3
The distribution of power, privileges and prestige are examined in a historical and comparative perspective. The process whereby distribution systems develop, become institutionalized, and become transformed are analyzed.

ANTHRO 303CN Cluster Course: Terrorism, Civil War and Trauma Credits: 3
This interdisciplinary course examines the modern experience of terrorism and civil war in the light of art, film, history, literature, and philosophy. It explores a number of traumatic events, historic and contemporary, challenging us to think about such contemporary issues as violence and identity formation, civil rights and state-sponsored terrorism, pacifism and patriotism, resistance and collaboration, fundamentalism and fascism, neo-colonialism and anti-imperialism.

Cross Listings: ENGLISH 300CN.
ANTHRO 305 Language and Culture Credits: 3
This course is designed to familiarize students with the basic objects, aims, and methods of linguistic anthropology. Students will acquire this familiarity by studying both theoretical and ethnographic articles that focus on some of the major areas of concern within the field including: the evolution of human language, linguistic particularity and universality, the relationship of language to thought, structuralism and semiotics, trope theory, language and emotion, sociolinguistics, the development of writing systems, and language conservation and change.

ANTHRO 306 Culture, Emotion, and Identity Credits: 3
This course introduces students to some of the key theoretical perspectives and debates within the field of psychological anthropology. By drawing upon cross-cultural studies of emotion, personhood, sexuality, illness, and consciousness it seeks to understand some of the ways that culture and society influence human psychology and experience.

ANTHRO 308 The Social Life of Things Credits: 3
This course examines the connections between people and things. It explores how social relationships are created and changed through the use and exchange of objects, and how objects themselves take on particular meanings and values in these processes.

ANTHRO 322 Race And Ethnic Relations Credits: 3
The nature, origin and dynamics of ethnic and race relations in the U. S. and other societies. Specific attention will be given to the historical and contemporary contexts of prejudice, discrimination and confrontation.

ANTHRO 324 Diversity And You Credits: 3
This course will examine diversity from the perspectives of race, ethnicity, class and gender. Emphasis will be placed on the impact of racism, classism and sexism on interpersonal relationships and strategies to encourage diversity in schools, neighborhoods, and the work place. Students may also enroll in "directed research" in conjunction with his course.

ANTHRO 326 Consumer Society Credits: 3
This course explores the emergence of Consumer Society as both a sociohistorical development and as an object of social scientific inquiry. Students will explore how the study of Consumer Society has been animated by different scholarly questions, debates, and analytic approaches.

Cross Listings: SOCIOL 326.

ANTHRO 327 US Government's Indian Policies: Practices Of A Colonizing Nation Credit: 1
This class will convey information about the implementation of US Government policies, from treaty making, establishing reservations, removing, confronting tribes militarily, and abolishing reservations through allotment resulted in consequences detrimental to tribal welfare. The colonization process created ramifications and consequences that Indian people contend with to this day. This class will provide a historical overview of the consequences associated with political, social, and economic processes that divested Indian people of control over their lives and land they originally lived on.

Cross Listings: SOCIOL 327.

ANTHRO 328 Body and Society Credits: 3
Body and Society is an interdisciplinary and comparative approach to the study of the body as the subject and object of social processes. Interdisciplinary approaches to topics such as meaning, ritual, performance, and practice will provide a framework for classical as well as contemporary explorations of bodily representation and experiences across a variety of cultural contexts.

Prerequisites: ANTHRO 103.

ANTHRO 329 The Imagery Of The American Indian In Film Credit: 1
This course will trace the imagery of the American Indian used by film makers through the years and how this has played a role in reinforcing certain inaccurate perceptions of American Indian cultural, social, and economic life. The course examines the sociological implications created by persistently showing misrepresented images of American Indians. The goal is to measure and compare the reality of American Indian life (values, traditions, and beliefs) with the images created by film makers from the early years of the 20th century to the present.

Cross Listings: SOCIOL 329.

ANTHRO 331 Urban Anthropology Credits: 3
A course designed to apply anthropological methods to the study of various urban environments. The approach to the subject is comparative, seeking to spell out those features of the urban setting which vary from culture to culture as well as those which are common to all.

ANTHRO 339 American Indian Leaders: Past And Present Credit: 1
This course will examine the definition of leadership as it relates to American Indian issues. Consideration will be given to the nuances of leadership by examining the social, cultural, economic, and political situations that gave cause for particular individuals to assume roles of leadership. The course will compare and contrast the notions of leadership within American Indian ranks with those practiced by non-Indian leaders. It will trace the evolving nature of leadership within tribal nations and American Indian communities from past to present, as well as looking at Indian leadership roles in time of war and peace. Lives of the major characters of American Indian historical record will be reviewed, such as Geronimo, Crazy horse, Sitting Bull, Osceola, Tecumseh, Pontiac, Black Hawk, Quannah Parker, and Captain Jack.

Cross Listings: SOCIOL 339.
ANTHRO 340R Social Change Credits: 3
Examines the key dimensions that bring about change in societies, including revolutions and evolutionary processes. Attention is given to the global context of social change, as well as the role of social actors and social movements.
Cross Listings: SOCIOL 340R.

ANTHRO 347 The American Indian Image: Stereotype Vs. Reality Credit: 1
This class will take a historical, sociological, and cultural approach to review how society at large views American Indians. The course will trace the origin and continued use of American Indian stereotyped views, and assess the sociological and psychological complications that result when judging Indians solely on stereotyped imagery. The course will review the historical content of American Indian life as portrayed in early plays, films, and newspaper accounts and compare these stereotyped images with the reality of American Indian life by providing a depiction of a series of historical events that will offer a more balanced and accurate consideration for American Indian life past and present.
Cross Listings: SOCIOL 347.

ANTHRO 348 Latinx Immigrants, Migrants, and Refugees in the U.S. Credits: 3
This course addresses the culture of societies of U.S. citizens, immigrants, and refugees of Latin American heritage living in the U.S. The course emphasizes recent anthropological, historical, cultural, and sociological studies.

ANTHRO 358 Culture and Society Credits: 3
This course examines the "culture concept" at the heart of the contending theories of society, which is used to describe a society or way of life, a whole social order, or particular aesthetic styles and objects. The course links these various topics together in a concluding section on culture in the age of the Internet and globalization.

ANTHRO 373 Anthropology of Religion Credits: 3
This course explores the ways anthropologist have gone about studying religion from the opening decades of the 20th century to present. The course introduces students to the diversity of human religious expression and experience through anthropological literature and to the diversity of anthropological expression especially as it has been revealed in social scientific studies of religious life. The course is designed to generate a critical dialogue about the special role that religion has played in the ongoing anthropological engagement with "other" societies and cultures over time.

ANTHRO 381 Archaeological Resources Management Credits: 3
This class examines contemporary issues managing archaeological resources. The class is intended for students seeking work in Cultural Resources Management (CRM); those already working CRM, or student anthropology, environmental studies, geology, geography, public administration and other fields likely to deal with archaeological and historical resources in a research or employment setting. This class does not require a background in archaeology.
Cross Listings: GEOLOGY 407.

ANTHRO 382 Archaeological Field Survey Methods Credits: 3
This class offers instruction in the basic skills required to conduct field surveys in archaeology and other geosciences disciplines. In the classroom, students learn about the development of archaeology as a scientific discipline and how to recognize some of the basic field data sought by archaeologists. Students learn about mapping and land navigation techniques. The field phase of instruction includes visits to archaeological sites in the region.
Cross Listings: GEOLOGY 408.

ANTHRO 383 Field School in Archaeology Credits: 3
This class offers students an opportunity to attend a field school in archaeology. Students will be taught how to: design archaeological research, set-up excavation, keep a wide range of excavation records, make maps and drawings, take photographs related to excavation problems, identify and recover a broad spectrum of artifact and faunal remains, collect samples for specialized analysis and use a wide range of excavations tools. This course will also introduce students to recording and analyzing excavated materials in the archaeological laboratory.
Cross Listings: GEOLOGY 409.

ANTHRO 384 North American Prehistory Credits: 3
This class offers instruction in the archaeological survey of prehistoric North America from the Arctic to northern Mexico. The course outlines cultural developments within this region from the peopling of the Americas near the end of the last Ice Age to the arrival of Europeans over 10,000 years later. The diversification of Native American societies across this time span is examined in relation to social and environmental challenges, including the transformation of hunter-gatherer groups into chiefdoms and complex agricultural societies.
Cross Listings: GEOG 457.

ANTHRO 385 Archaeology as Anthropology: The Development of Human Societies Credits: 3
This class examines the development of archaeology as a distinctive branch of anthropology, and archaeology's role in a centuries-long debate about the causes of cultural variation and the development of human societies. This class examines how the Enlightenment, colonialism, the geological discovery of Deep Time and the Darwinian Revolution not only give rise to anthropology and archaeology, but launched an enduring debate about how and why we study cultural behavior.

ANTHRO 386 Introduction to Prehistoric and Classical Archaeology Credits: 3
An introduction to archaeological research methods that traces human origins and cultural development from the earliest fossil evidence to the threshold of written history and civilization. This class emphasizes the evolutionary and cultural developments that allowed our ancestors to colonize the continents and develop lifeways involving hunting and gathering, farming and urbanism.
ANTHRO 397 Independent Readings in Anthropology Credits: 1-3
Intensive readings in an area selected by the student with prior consultation with instructor.

Prerequisites: Twelve hours of anthropology.

ANTHRO 407 Writing Culture: The Craft of Ethnography Credits: 3
This course will explore the ways anthropologists document and write about cultural practices, processes, and beliefs. Students will become familiar with debates about representation while they consider differences in the ways ethnographic writing rhetorically conveys culture. Students will also compare ethnographic methods, theories, and styles of writing as these have changed over time.

ANTHRO 441 Globalization and Development Credits: 3
Focuses on issues of economic development, social stratification, political institutions, and political mobilization in societies where colonialism provided the context for their long-term disadvantages in the international economic order. Specific attention is paid to the intersection of the international components that define the options and limits for societal development (e.g., market shifts, international institutions and contracts, foreign policies, and migration) and the distinct social, political and cultural implications of these factors for developing societies.

Cross Listings: SOCIOL 441.

Sociology Courses

SOCIOL 101 Sociology: An Introduction Credits: 3
An introduction to the study of society and the basic concepts of sociology.

SOCIOL 101 - MOTR SOCI 101: General Sociology

SOCIOL 201 Introduction To Social Psychology Credits: 3
Exploration of the relationships between human behavior and social context. The course focuses on how realities are socially constructed and sustained, the role of symbol systems, definitions of the situation, the self as a product of interaction, and the relationship between language, thought and culture.

SOCIOL 203 Social Problems Credits: 3
An examination of major social problems of modern Western society, including issues of racial conflict, war, civil rights, youth movements, the mass media, urban poverty, and crime. The topics will vary from year to year depending upon the instructor.

SOCIOL 211 Social And Psychological Development Through The Life Cycle Credits: 3
A survey of significant psychosocial issues, events and crises throughout the human life span. The life cycle of the family is examined as the primary context within which individual development occurs. Although the primary emphasis will be on normal adjustment and development, attention will also be given to the occurrence of special problems and deviations at each life stage.

SOCIOL 263 Introduction to Statistics in Sociology/Criminal Justice Credits: 3
A first course in the statistical analysis of quantitative data. Course emphasizes descriptive statistics, probability theory, parameter estimation, bivariate hypothesis testing, and computer applications.

Prerequisites: MATH 110 or higher.

SOCIOL 300 Special Topics in Sociology Credits: 1-3
Each time this course is offered, a different area of sociology, to be announced, will be given. On demand.

SOCIOL 300A Special Topics In Sociology Credits: 1-3
Each time this course is offered, a different area of sociology, to be announced, will be given.

SOCIOL 302 Social Stratification Credits: 3
The distribution of power, privileges and prestige are examined in a historical and comparative perspective. The process whereby distribution systems develop, become institutionalized, and become transformed are analyzed.

Cross Listings: ANTHRO 302.

SOCIOL 306 Culture, Emotion, and Identity Credits: 3
This course introduces students to some of the key theoretical perspectives and debates within the field of psychological anthropology. By drawing upon cross-cultural studies of emotion, personhood, sexuality, illness, and consciousness it seeks to understand some of the ways that culture and society influence human psychology and experience.

Cross Listings: ANTHRO 306.

SOCIOL 308 The Social Life of Things Credits: 3
This course examines the connections between people and things. It explores how social relationships are created and changed through the use and exchange of objects, and how objects themselves take on particular meanings and values in these processes.

SOCIOL 310R Families And The Life Course Credits: 3
This course is an upper level introduction examining the sociological, historical, and social psychological research on the family, focusing primarily on the United States. The course examines families of varied ethnicity, as well as family compositions at different stages of the life course. Emphasis is placed on the interdependence of family members, as well as how society and policy influence the family.
SOCIOL 313R Sociology Of Gender Credits: 3
This course is an introduction to the sociological study of gender in contemporary U.S. society. Special attention is directed to how gender is experienced inter-sectionally with other social categories, including social class, race, sexuality, and age.

SOCIOL 316 Sociology Of Death And Dying Credits: 3
Examination of attitudes, behaviors and institutions related to death and dying in contemporary American society. Topics include the status of death in American society, effects of the setting on dying, interaction with the dying, funeral practices, bereavement customs, surviving spouse, and suicide.

SOCIOL 317 Policies Of Drug Use And Control Credits: 3
Utilizing both historical and contemporary information, this course provided an assessment of the "drug problem" in the U.S. and policies of control developed in response to the problem. Drug use criminalization, legalization, medical treatment and prevention strategies and related issues are considered in regard to scientific knowledge related to the patterns, causes and impact of substance abuse.

SOCIOL 318 Sociology Of The Aging Woman Credits: 3
An exploration of the intersection of gender and aging issues with special attention to cultural images of women, the development of self-concept and identity in mid-life and beyond, caring roles in the family, work and retirement, and health and mental health issues. These issues are examined within the context of social class, race, and ethnicity. Implications for community programs and social policy are considered.

SOCIOL 319 Theoretical Criminology Credits: 3
A comprehensive examination of the major criminological theories, their philosophical assumptions, and the sociohistorical context in which they were articulated.

SOCIOL 320 Social Deviance Credits: 3
The dominant sociological perspectives on deviance will be discussed with special attention given to the processes that define behavior and persons as deviant and the impact of such definitions on social relationships and identity.

SOCIOL 322 Race And Ethnic Relations Credits: 3
The nature, origin and dynamics of ethnic and race relations in the U. S. and other societies. Specific attention will be given to the historical and contemporary contexts of prejudice discrimination and confrontation.

SOCIOL 324 Diversity And You Credits: 3
This course will examine diversity from the perspectives of race, ethnicity, class and gender. Emphasis will be placed on the impact of racism, classism and sexism on interpersonal relationships and strategies to encourage diversity in schools, neighborhoods, and the work place. Students may also enroll in "directed research" in conjunction with his course.

Cross Listings: ANTHRO 324.

SOCIOL 326 Consumer Society Credits: 3
This course explores the emergence of Consumer Society as both a sociohistorical development and as an object of social scientific inquiry. Students will explore how the study of Consumer Society has been animated by different scholarly questions, debates, and analytic approaches.

Cross Listings: ANTHRO 326.

SOCIOL 327 US Government’s Indian Policies: Practices Of A Colonizing Nation Credit: 1
This class will convey information about the implementation of US government policies toward American Indians and how each of the policies, from treaty making, establishing reservations, removing, confronting tribes militarily, and abolishing reservations through allotment resulted in consequences detrimental to tribal welfare. The colonization process created ramifications and consequences that Indian people contend with to this day. This class will provide a historical overview of the consequences associated with political, social, and economic processes that divested Indian people of control over their lives and land they originally lived on.

Cross Listings: ANTHRO 327.

SOCIOL 328 Body and Society Credits: 3
Body and Society is an interdisciplinary and comparative approach to the study of the body as the subject and object of social processes. Interdisciplinary approaches to topics such as meaning, ritual, performance, and practice will provide a framework for classical as well as contemporary explorations of bodily representation and experiences across a variety of cultural contexts.

Prerequisites: ANTHRO 103.

SOCIOL 329 The Imagery Of The American Indian In Film Credit: 1
This course will trace the imagery of the American Indian used by film makers through the years and how this has played a role in reinforcing certain inaccurate perceptions of American Indian cultural, social, and economic life. The course examines the sociological implications created by persistently showing misrepresented images of American Indians. The goal is to measure and compare the reality of American Indian life (values, Traditions, and beliefs) with the images created by film makers from the early years of the 20th century to the present.

Cross Listings: ANTHRO 329.

SOCIOL 332 Sociology Of Political Life Credits: 3
The concept of power, community power structure and decision making. The social basis of liberal democracy; consensus and legitimacy; political stability and instability. Power and politics in a mass society; elites and masses; democracy and oligarchy; alienation; bureaucracy; pluralism and totalitarianism. Ideology and social movements.
SOCIOL 335R Introduction To Social Work: Principles And Practice Credits: 3
An introductory course to social work, its history and current role in the delivery of social welfare services. Designed to give the student insight into the body of knowledge, theory, values, principles, and techniques of the social work process. Investigation into the varieties of practice methods, i.e., casework, group work, community organization, and the present trend toward the generic approach.

SOCIOL 336 Society And Community Service Credits: 3
This course explores the history and increasing importance of the non-profit sector and volunteerism. Applying theoretical approaches from development and community organizing, the course analyzes the uses of volunteerism and NGOs nationally and internationally. Students’ understanding will be enhanced through the inclusion of applied methods needed to manage a non-profit organization and by serving in an internship in a local non-profit during the semester.

SOCIOL 337 Community Development In Urban America Credits: 3
The focus in this course is on experiential learning in which the student participates in several urban community development projects that allow for learning about collaboratives, networking, problem-solving, and requisite skills to successfully manage a project. Principles of community development are presented to give the student background for understanding the projects visited.

SOCIOL 338 The World of Latino Youth and Adolescents in the U.S. Credits: 3
This course will provide a general introduction and in-depth understanding to the largest group of racial/ethnic adolescents in the United States: Latino youth. An historical examination of Latino youth will provide a better understanding of their present status, with emphasis on their contact and interactions within social institutions. Additionally, students will analyze the experiences Latino youth have within and among other groups in the broader social context based on past, present, and possible future interactions.

Cross Listings: LLS 310.

SOCIOL 340R Social Change Credits: 3
Examines the key dimensions that bring about change in societies, including revolutions and evolutionary processes. Attention is given to the global context of social change, as well as the role of social actors and social movements.

Cross Listings: ANTHRO 340R or SOCIOL 340R.

SOCIOL 347 The American Indian Image: Stereotype Vs. Reality Credit: 1
This course will examine the definition of leadership as it relates to American Indian issues. Consideration will be given to the nuances of leadership by examining the social, cultural, economic, and political situations that gave cause for particular individuals to assume roles of Indian ranks with those practiced by non-indian leaders. It will trace the evolving nature of leadership within tribal nations and American Indian communities from past to present, as well as looking at Indian leadership roles in time of war and peace. Lives of the major characters of American Indian historical record will be reviewed, such as Geronimo, Crazy horse, Sitting Bull, Osceola, Tecumseh, Pontic, Black Hawk, Quannah Parker, and Captain Jack.

Cross Listings: ANTHRO 339.

SOCIOL 348 Latinx Immigrants, Migrants, and Refugees in the U.S Credits: 3
This course addresses the culture of societies of U.S. citizens, immigrants, and refugees of Latin American heritage living in the U.S. The course emphasizes recent anthropological, historical, cultural, and sociological studies.

SOCIOL 351 Gender, Work And Social Change Credits: 3
This course examines the role of gendered work and consumption in global social change. Drawing from sociological perspectives on gender and work, this course foregrounds a global comparative analysis of societal development and working contexts, including tourism employment, sex work, domestic work, and agricultural, garment, and informatics production. Academic-service learning constitutes a primary course assignment.

SOCIOL 357 Social Movements Credits: 3
This course focuses on the link between social movements and political change in the modern world. Social movements arise outside official channels and against established political orders. Students will develop an understanding of the relation between social mobilization and institutional change in various countries, especially in the United States.

SOCIOL 361 Social Theory Credits: 3
A survey of the major orientations in social theory, their historical development, and contemporary issues and controversies in social theory. Recommended preparation: A course in social science.
SOCIOL 362 Methods Of Sociological Research Credits: 3
Experimental and observational schemes; survey analysis; interview and questionnaire designs; scaling techniques; sampling. Recommended preparation: A course in Social Science.

SOCIOL 390R Directed Field Experience I Credits: 1-6
The student will work within one or more social agencies or organizations in the city under the joint supervision of a professional within the organization and a member of the Sociology Department. In-class discussion will cover the major problems of social organization.

SOCIOL 391 Directed Field Experience II Credits: 1-6
A continuation of SOCIOL 390R.

SOCIOL 397 Independent Readings In Sociology Credits: 1-3
Intensive readings in an area selected by the student with prior consultation with instructor. Recommended preparation: Twelve hours of sociology coursework.

SOCIOL 398 Independent Research In Sociology Credits: 1-6
Intensive research in an area selected by the student with prior consultation with instructor.

Prerequisites: Twelve hours of sociology.

SOCIOL 404WI The Sociology Capstone: Senior Seminar Credits: 3
A seminar which explores the interrelationships between sociology theory, research methods and statistics. May focus on major contemporary issues building on and integrating knowledge obtained in previous courses.

Prerequisites: SOCIOL 362, RooWriter.

SOCIOL 410R Aging In Contemporary Society Credits: 3
Attitudes and stereotypes, the status of the aged in American society, the social psychology of the aging process, the response of societal institutions such as the family and political system to the aging of the population as a whole. Applications and potentials of research are considered.

SOCIOL 411 Sociology Of Human Sexuality Credits: 3
A cross cultural examination of the most fundamental dichotomy in human society: male and female. Considering sex both as a biological and social category, this course compares diversity and similarity in the interrelationships of male and female in patterns of behavior and social organization found in human societies across time and space.

SOCIOL 418 Feminist Theories Credits: 3
This class introduces the major feminist theories and their primary authors over the last 200 years. The class takes both a historical view (beginning with two millenia of male-centered theories about women) and a conceptual approach (theories are grouped by common ground) and familiarizes the student with both the historical processes that necessitate feminist theories as well as with the breadth and depth of the historically and currently available scholarship.

Prerequisites: WGS 201.

SOCIOL 431 Social Organization Of The City Credits: 3
An examination of the social structure of the American city with special reference to the historical development of American cities. Attention will be focused on the role of social institutions as they have changed in relation to urban problems.

SOCIOL 433 Immigration and the City Credits: 3
This course examines key issues and controversies in immigration research. Special attention will be paid to the social, economic, and historical developments of urban immigrant communities.

SOCIOL 434 Spatial Thinking in Social Science Credits: 3
This course will review ways in which social scientists have incorporated the concepts of space, place, and distance into their theories and research. Readings will be drawn from interdisciplinary work in the areas of urban sociology, criminology, health and demography that deal with spatial organization of communities and cities, spatial disparity of health and crimes, and mobility.

Prerequisites: junior, senior, or graduate standing.

SOCIOL 440R Sociology Of Medicine Credits: 3
Relationship of basic concepts in sociology to health and medical care. Cultural and class variations in health status. Social and cultural aspects of health. Recommended preparation: A course in social science.

SOCIOL 441 Globalization and Development Credits: 3
Focuses on issues of economic development, social stratification, political institutions, and political mobilization in societies where colonialism provided the context for their long-term disadvantages in the international economic order. Specific attention is paid to the intersection of the international components that define the options and limits for societal development (e.g., market shifts, international institutions and contracts, foreign policies, and migration) and the distinct social, political and cultural implications of these factors for developing societies.

Cross Listings: ANTHRO 441.
SOCIOL 5501 Social Theory I Credits: 3
Examines the development of social theory in Europe up to the beginning of the twentieth century, with a focus on its intellectual precursors of social theory, debates over the nature of society, and controversies over the distinct features of sociology as an emerging academic discipline. The major perspectives covered include the intellectual origins of sociological thought in Great Britain, France, and Germany, and the debates as reflected in the writings of Karl Marx, Emile Durkheim, Max Weber, and Georg Simmel.
Prerequisites: undergraduate course in Sociological Theory.

SOCIOL 5502 Social Theory II Credits: 3
Examines the major sociological theories developed during the twentieth century and contemporary debates over the nature of society and the nature of our knowledge about society. Theories to be examined include behaviorism, symbolic interactionism, structural functionalism, phenomenology, conflict theory, postmodernism, those that attempt to integrate social agency and structure, and feminist theory.
Prerequisites: SOCIOL 5501.

SOCIOL 5503 Controversies In Contemporary Social Theory And Practice Credits: 3
This course critically examines central issues in contemporary debates among social theorists over the nature of society and how it should be studied.

SOCIOL 5510 Sociological Methods I Credits: 3
A survey of methods used by sociologists: selection and formulation of problem, research design, survey research, participant observation, sampling, reliability and validity, use of scales, and data analysis.
Prerequisites: SOCIOL 362 (or equivalent).

SOCIOL 5511 Sociological Methods II Credits: 3
Quantitative research is the primary focus of the course; emphasis is placed on problem formulation; research design; sampling procedures; questionnaire construction and interviewing techniques; data collection; problems of scaling, validity and reliability; uses of secondary data sets; data analyses and report writing.
Prerequisites: SOCIOL 362 (or equivalent).

Cross Listings: CJC 5511.

SOCIOL 5516 Intermediate Statistics Credits: 3
A systematic development of the logic and practice of selected statistical methods used in sociological research. Included are analysis of variance and covariance, regression analysis, multiple contingency, and non-parametric tests.
Prerequisites: SOCIOL 263.

Cross Listings: CJC 5516.

SOCIOL 5530 Anthropology Of Gender Credits: 3
This class explores theories of the social construction of gender in cross-cultural contexts. It will also explore global issues of diversity, local and international politics, the economy and work, education, etc.

SOCIOL 5531 Feminist Theories Credits: 3
This class introduces the major feminist theories and their primary authors over the last 200 years. The class takes both an historical (we begin with two millennia of male-centered theories about women) and a conceptual approach (theories are grouped by common ground) and familiarizes the student with both the historical processes that necessitate feminist theories as well as with the breadth of the historically and currently available scholarship. Graduate students are expected to fulfill all undergraduate requirements at graduate-level quality, including independent research components; in addition, graduate students are required to be prepared to lead class discussions.
Prerequisites: WGS 201.

SOCIOL 5534 Spatial Thinking in Social Science Credits: 3
This course will review ways in which social scientists have incorporated the concepts of space, place, and distance into their theories and research. Readings will be drawn from interdisciplinary work in the areas of urban sociology, criminology, health and demography that deal with spatial organization of communities and cities, spatial disparity of health and crimes, and mobility. Generic computer file management skills are required and knowledge of research methods is desirable.

SOCIOL 5537 Anthropology of Religion Credits: 3
This course explores the ways anthropologists have gone about studying religion from the opening decades of the 20th century to present. The course introduces students to the diversity of human religious expression and experience through anthropological literature and to the diversity of anthropological expression especially as it has been revealed in social scientific studies of religious life. The course is designed to generate a critical dialogue about the special role that religion has played in the ongoing anthropological engagement with "other" societies and cultures over time.

SOCIOL 5538 Gender, Work And Social Change Credits: 3
This course examines the role of gendered work and consumption in global social change. Drawing from sociological perspectives on gender and work, this course foregrounds a global comparative analysis of societal development and working contexts, including tourism employment, sex work, domestic work, and agricultural, garment, and informatics production. Graduate students are required to carry out independent research or complete work in the area of public sociology and academic-service learning. Students will write a conference paper or journal quality article from this research.
SOCIOL 5540 Urban Social Structure Credits: 3
An examination of the social structure of the American city with special reference to the historical development of American cities. Attention will be focused on the role of social institutions as they have changed in relation to urban problems.

SOCIOL 5550 Sociology Of Aging Credits: 3
A seminar in which theoretical orientations, methodologies, and findings from crosscultural and community research in gerontology are systematically reviewed, within a social change framework.

SOCIOL 5554 Sociology Of The Aging Woman Credits: 3
An exploration of the intersection of gender and aging issues with special attention to cultural images of women, the development of self-concept and identity in mid-life and beyond, caring roles in the family, work and retirement, and health and mental health issues. These issues are examined within the context of social class, race, and ethnicity. Implications for community programs and social policy are considered. Graduate students will be expected to carry out a research project and to lead a class session.

SOCIOL 5556 Aging And Developmental Disabilities Credits: 2
This course explores the experience of aging with a developmental disability or mental retardation within the context or normative aging. Among the comparisons made between older persons with and without developmental disabilities are their demographic characteristics, physical and cognitive functioning, role transitions and losses, identities and self-concepts, and family and caregiving issues. Policies, programs, and emerging concepts of best practices are considered within the context of quality of life, ethical, and community inclusion bases.

SOCIOL 5557 Practicum In Aging And Developmental Disabilities Credit: 1
Students gain experience in working with and defining issues of older persons with developmental disabilities through placements in sheltered workshops, senior centers, residential group homes, and other community-based programs.
Co-requisites: SOCIOL 5556.

SOCIOL 5560 Sociology Of Death And Dying Credits: 3
This course examines attitudes, behaviors, and institutions related to death and dying in contemporary American society. Topics include the meanings of death in American society, social settings for dying, interaction with the dying, customs and practices surrounding death, role transitions of survivors, and suicide. Special attention is given to issues of aging and dying.

SOCIOL 5573 Latin American Immigrants and Refugees in the U.S. Credits: 3
This course is the study of history, culture and societies of immigrants and US citizens of Latin American heritage living in the U.S.

SOCIOL 5580 Special Studies In Sociology Credits: 1-3
An opportunity to explore in depth topics not included in usual course offerings. One or more topics will be announced in advance of registration.

SOCIOL 5595 Directed Research Experience Credits: 3
Research project supervised by faculty.

SOCIOL 5597 Independent Readings Credits: 1-3
Intensive readings in an area selected by the student with prior consultation with the instructor.

SOCIOL 5599 Thesis And Research Credits: 1-6
Directed specialized research. Before writing a thesis, the student must clear the topic and research design with the Supervisory Committee. The course also involves the writing of the thesis.

SOCIOL 5699 Dissertation Research Credits: 1-12
Individual directed research leading to preparation and completion of doctoral dissertation.

SOCIOL 5899 Required Graduate Enrollment Credit: 1
Minor in Anthropology

Students are urged to confer with a department advisor to plan a minor. To declare a minor in anthropology, students must file a completed declaration form with a current copy of their transcript with the Anthropology Program Coordinator. Completion of the minor is recorded on the student’s transcript.

Student Learning Outcomes

Students graduating from this program will:

- Examine the role and relevance of the anthropological perspective for contemporary social life. Thus students will gain knowledge of the fundamentals in Anthropology, such as the foundations of human practice, belief, and organization.
- Reflect on contemporary issues and controversies in the academic discipline of Anthropology. Thus students will be able to examine issues of inequality, cultural difference, and social stratification from a comparative perspective, applying anthropological principles and concepts to their own lives.
- Explore the basic theoretical and methodological perspectives, both in the social sciences and in a chosen specialty area. Thus students will have the capacity to critically evaluate and engage contemporary issues, trends in theory, and instruments of social analysis.
- Advance the critical research, thinking, and writing skills that are integral to professional development and civic engagement. Thus, students will apply the fundamentals of anthropology to both experience and enhanced interest in community engagement.

Anthropology is a holistic and cross-culturally comparative science that is uniquely qualified to prepare students for multicultural work and social environments in the U.S. and abroad. Careers for anthropologists, however, lie in all areas of human interaction. Anthropologists are especially attractive to companies and government agencies that work with and for national minorities and in foreign countries.

Students will be introduced to the subject and methods of cultural anthropology, examining its foundations and current trends in theory and applications. Students earning a minor in anthropology take 3 credit hours of required coursework (ANTHRO 103) and 15 credit hours of elective courses, which result in a total of 18 credit hours. At least 9 of the 18 credit hours must be in courses at the 300- or 400-level. Where courses are cross-listed in a major and a minor, only 6 credit hours can be applied to both. Only 3 credit hours can be shared between two minors. Students should consult with the program coordinator to select the appropriate courses. A minimum grade of C in ANTHRO 103 and a minimum overall GPA of 2.0 in the minor must be attained. No more than 6 of the 18 credits may be transferred from another institution.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ANTHRO 103</td>
<td>Introduction To Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>Elective Coursework (in consultation with advisor)</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>
Minor in Sociology

Students are urged to confer with a department advisor to plan a minor. To declare a minor, students must file a completed declaration form with the College of Arts and Sciences Advising Office. Completion of the minor is recorded on the student’s transcript.

Student Learning Outcomes

Students graduating from this program will:

- demonstrate the ability to apply theoretical concepts to one’s own life experiences. Specifically, students should be able to discuss how a theoretical framework can explain or elucidate a personal experience or a new or previously held belief about one’s life or the social world in general.
- be able to communicate ideas in written form.

Program Requirements

Undergraduate students can complete an 18-credit minor in Sociology. Course work must include the introductory course, SOCIOL 101, and at least 9 credits at the upper-division (300 or 400) level. Where courses are cross-listed in a major and minor, only 6 credit hours can be applied to both. A minimum grade of C- in SOCIOL 101 and a minimum overall GPA of 2.0 in the minor must be attained. Only 3 credit hours can be shared between minors. No more than 6 of the 18 credits may be transferred from another institution.
Bachelor of Arts: Sociology

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

• Examine the role and relevance of the sociological perspective for contemporary social life. Thus students will gain knowledge of the fundamentals in Sociology, such as the foundations of human practice, belief, and organization.

• Reflect on contemporary issues and controversies in the academic discipline of Sociology. Thus students will be able to examine issues of inequality, cultural difference, and social stratification from a comparative perspective, applying sociological principles and concepts to their own lives.

• Explore the basic theoretical and methodological perspectives, both in the social sciences and in a chosen specialty area. Thus students will have the capacity to critically evaluate and engage contemporary issues, trends in theory, and instruments of social analysis.

• Advance the critical research, thinking, and writing skills that are integral to professional development and civic engagement. Thus students will apply the fundamentals of sociology to both experience and enhanced interest in community engagement.

Career Implications
The B.A. curriculum in sociology is designed to prepare students for a variety of career paths, including:

• Graduate level work in sociology degrees in order to become a professor, researcher, or applied social scientist.

• Entry-level positions throughout the business, human services, and government sectors. Employers look for people with the skills that an undergraduate degree in sociology provides.

• Careers in journalism, politics, public relations, business, or public administration—fields that involve the kind of investigative skills and ability to work with diverse groups that students encounter in the curriculum our faculty’s expertise.

• Professions such as law, education, medicine, social work, and counseling—fields that all draw on the rich fund of knowledge from sociology.

Program Requirements
Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Anchor I ¹</td>
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</tr>
<tr>
<td>Anchor II ¹</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III ¹</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
</tbody>
</table>

¹ Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework
Bachelor of Arts: Sociology

Focus A

Focus B (Satisfied in program requirements below)

Focus C (Satisfied in program requirements below)

Focus Elective (Satisfied in program requirements below)

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 21

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) 1</td>
<td></td>
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<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) 1</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 3

Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>ALEKS Math Placement</td>
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<tr>
<td>Art and Humanities Division of CAS 1</td>
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<td>6</td>
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<tr>
<td>Science and Math Division of CAS</td>
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<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign Language (3rd Semester Level)</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course) 2</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>Laboratory Science Experience</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 31

1 ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.
This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

**Major Requirements**

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ANTHRO 103</td>
<td>Introduction To Cultural Anthropology (Focus C)</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 101</td>
<td>Sociology: An Introduction (Focus C)</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 263</td>
<td>Introduction to Statistics in Sociology/Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 361</td>
<td>Social Theory</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 362</td>
<td>Methods Of Sociological Research</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 404WI</td>
<td>The Sociology Capstone: Senior Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

**Major Electives**

15

Total Credits 33

*STAT 235 is not a substitute for SOCIOL 263.*

*All majors are required to take a writing intensive course within the Department of Sociology (SOCIOL 404WI fulfills this requirement).*

Other degree requirements include:

1. A minimum grade of C- in all required core courses.
2. A 2.0 grade-point average in the 33 major credit hours.
3. Completion of the general degree requirements of the College of Arts and Sciences with a minimum GPA of 2.0.
4. No more than three one-credit courses of Special Topics in Sociology (SOCIOL 300__) may be used to fulfill sociology elective requirements.
5. A maximum of 6 hours from any combination of field experience, directed individual study and research will count toward the requirements.

**General Electives**

Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td></td>
<td></td>
<td>32</td>
</tr>
</tbody>
</table>

**Minimum GPA: 2.0**

**Total Credit Hours: 120**

**Bachelor of Arts Electives: Sociology with Cultural Anthropology Emphasis**

Sociology majors at UMKC can earn a cultural anthropology emphasis within the undergraduate degree. As the comparative study of human societies, a cultural anthropology emphasis is uniquely poised to develop diversity awareness which is increasingly critical as the world becomes more global. To earn the cultural anthropology emphasis, in addition to the core major requirements, students must take 15 elective credit hours from the course list below. Nine of these 15 credit hours must be at the 300-level or higher. Completion of the emphasis is recorded on the student’s transcript.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANCH 213</td>
<td>Empire 1</td>
<td>3</td>
</tr>
<tr>
<td>ANTHRO 302</td>
<td>Social Stratification</td>
<td>3</td>
</tr>
<tr>
<td>ANTHRO 303CN</td>
<td>Cluster Course: Terrorism, Civil War and Trauma</td>
<td>3</td>
</tr>
<tr>
<td>ANTHRO 305</td>
<td>Language and Culture</td>
<td>3</td>
</tr>
<tr>
<td>ANTHRO 306</td>
<td>Culture, Emotion, and Identity</td>
<td>3</td>
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<tr>
<td>ANTHRO 308</td>
<td>The Social Life of Things</td>
<td>3</td>
</tr>
<tr>
<td>ANTHRO 322</td>
<td>Race And Ethnic Relations</td>
<td>3</td>
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<tr>
<td>ANTHRO 324</td>
<td>Diversity And You</td>
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<td>ANTHRO 326</td>
<td>Consumer Society</td>
<td>3</td>
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<tr>
<td>ANTHRO 328</td>
<td>Body and Society</td>
<td>3</td>
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<tr>
<td>ANTHRO 331</td>
<td>Urban Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTHRO 340R</td>
<td>Social Change</td>
<td>3</td>
</tr>
<tr>
<td>ANTHRO 348</td>
<td>Latinx Immigrants, Migrants, and Refugees in the U.S.</td>
<td>3</td>
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<tr>
<td>ANTHRO 358</td>
<td>Culture and Society</td>
<td>3</td>
</tr>
<tr>
<td>ANTHRO 373</td>
<td>Anthropology of Religion</td>
<td>3</td>
</tr>
<tr>
<td>ANTHRO 384</td>
<td>North American Prehistory</td>
<td>3</td>
</tr>
<tr>
<td>ANTHRO 385</td>
<td>Archaeology as Anthropology: The Development of Human Societies</td>
<td>3</td>
</tr>
<tr>
<td>ANTHRO 397</td>
<td>Independent Readings in Anthropology</td>
<td>1-3</td>
</tr>
<tr>
<td>ANTHRO 407</td>
<td>Writing Culture: The Craft of Ethnography</td>
<td>3</td>
</tr>
<tr>
<td>ANTHRO 441</td>
<td>Globalization and Development</td>
<td>3</td>
</tr>
</tbody>
</table>

One-credit courses that can be used for Cultural Anthropology Emphasis:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTHRO 327</td>
<td>US Government's Indian Policies: Practices Of A Colonizing Nation</td>
</tr>
<tr>
<td>ANTHRO 329</td>
<td>The Imagery Of The American Indian In Film</td>
</tr>
<tr>
<td>ANTHRO 339</td>
<td>American Indian Leaders: Past And Present</td>
</tr>
<tr>
<td>ANTHRO 347</td>
<td>The American Indian Image: Stereotype Vs. Reality</td>
</tr>
</tbody>
</table>

1 ANCH 213 cannot satisfy both the Anchor II General Education requirement and the elective requirement for the major.

### Tools for Planning and Fulfilling Academic Requirements

UMKC’s Major Maps ([https://cf1.umkc.edu/majormaps](https://cf1.umkc.edu/majormaps)) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System ([https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp](https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp)) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides ([https://www.umkc.edu/transferguides](https://www.umkc.edu/transferguides)) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Master of Arts: Sociology

Career Implications of the M.A. in Sociology

An M.A. in sociology opens the recipient to many potential career paths. Some M.A. recipients go directly into teaching at the community college or high school level. Others enter the corporate, nonprofit and government worlds in areas such as directors of research, policy analysis, consulting, human resource management and program management. This credential would be an appropriate requirement to become an executive director in a social service agency. For outstanding students, the M.A. is preparation for doctoral level studies.

Admission Requirements

• Bacchalaureate degree from an accredited college or university in Sociology (or related discipline such as Political Science, Anthropology, History, or Psychology)
• An undergraduate GPA of 3.0 (B) in the junior/senior years
• An overall GPA of 2.75 and a 3.0 GPA in sociology courses
• Successful completion (receiving an 80% or better) in three undergraduate courses: Social Theory, Research Methods, and Statistics (equivalent to SOCIOL 263, SOCIOL 361, and SOCIOL 362)*
• The GRE is not required for admission.

*In the case when an otherwise outstanding student does not meet these above requirements, the student may be accepted conditionally to the program. For these conditionally accepted students to gain full admission, they must demonstrate aptitude for coursework in Sociology, particularly in the required courses. We strongly advise potential applicants to have completed at least two (preferably all three) of these courses prior to applying to the program.

Application Procedures

Application Deadlines:

• November 1: Winter/Spring semester admission
• February 15: Fall semester admission. To be considered for departmental teaching or research assistant positions, applicants must submit the GTA/GRA assistantship application in addition to the MA application packet by February 15. The graduate assistantship application form is available at http://cas.umkc.edu/sociology/images/documents/gtagra-application.pdf.
• April 1: Fall semester admission (deadline for applicants who are not applying for a departmental teaching or research assistantship position).

A complete application packet includes the application fee, as required, and these materials submitted to the university's Office of Admissions:

• The UMKC general application form, available at http://www.umkc.edu/admissions
• All undergraduate transcripts;
• Three letters of recommendation, preferably from former instructors;
• One undergraduate written assignment that best illustrates your ability to think analytically; and
• A two to three page statement outlining your goals for graduate study, the nature of your interest in Sociology, and at least one current UMKC faculty member whose areas of expertise match your interests, any past experiences that are relevant, as well as your future plans. (This is in place of completing the statement of purpose section on the UMKC application.)

We strongly encourage the student to contact directly the principal graduate advisor, Dr. Deborah Smith (smithde@umkc.edu), or other faculty members who similar research interests prior to or during the admission process.

Student Learning Outcomes

Students graduating from this program will:

• Examine the role and relevance of the sociological perspective for graduate students who will have the knowledge and skills necessary to pursue either a Ph.D. in a related field or to engage in enhanced study, research, and/or application of sociological method and theory.
• Reflect on contemporary issues and controversies in sociology, and advance sociological research through their own academic engagement with social theories and methods.
• Explore the theoretical and methodological perspectives in a chosen specialty area to elaborate the historical development and contemporary manifestation of social inequalities.
• Advance critical research and writing skills for professional development and civic engagement such that graduate students will deepen their professional commitment to community.
Curriculum Requirements

This program requires 30 credit hours of coursework. The following core courses (15 credits) are required of all students and should be taken early in the program:

**Required Courses**

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SOCIOL 5501</td>
<td>Social Theory I</td>
<td>3</td>
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<tr>
<td>SOCIOL 5502</td>
<td>Social Theory II</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 5510</td>
<td>Sociological Methods I</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 5511</td>
<td>Sociological Methods II</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 5516</td>
<td>Intermediate Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 15

Students also must complete an additional 15 credit hours, generally fulfilled by taking graduate-level courses from the Sociology curriculum. Specifically, these 15 hours beyond the core courses may include up to 6 credit hours of thesis research, up to 3 credit hours of independent/directed studies, up to 6 credit hours of 400-level coursework in the department, and/or up to 6 credit hours of graduate coursework from other disciplines with the approval of the sociology principal graduate advisor. In no case can more than 3 one-credit courses be part of the program of study.

Students are expected to earn a GPA of 3.0 or above in the core courses and an overall GPA of 3.0. Those who do not meet this requirement will be subject to review by the departmental graduate standards committee. Students who do not perform at a satisfactory level during their time in the program may be reviewed by the Graduate Standards Committee and subsequently can be placed on probation and/or terminated from the program.

Students must complete at least 3 credit hours of graduate work each semester (fall and spring) for the first 2 years of the program and at least 1 credit hour each subsequent semester (fall and spring) to maintain their standing in the program.

By the midpoint of the program, a student should have selected at least 3 faculty members to serve on the master’s committee and filed a program of study.

Students may complete the M.A. requirements in Sociology through either: (a) the thesis option, or (b) the comprehensive exam option. We strongly advise students to pursue the thesis option as this provides the greatest flexibility for future study and employment choices.

**Thesis Option**

Of the required 30 credit hours, 6 credit hours are used for the completion of the master’s thesis. An oral defense of the thesis is required. We strongly encourage all students, especially those who aspire to the doctoral-study level, to select the thesis option.

**Comprehensive Exam Option**

In addition to the 30 required credit hours, students choosing this option must pass a comprehensive exam comprised of 3 parts: sociological theory, research methods and statistics and a substantive area of the student’s choice in consultation with the principal graduate advisor or the student’s committee chair.

If a student is unable to pass any component of the comprehensive exam on a second try, the graduate standards committee will evaluate the situation and decide if circumstances warrant a third attempt. Under no circumstances, will a student be given more than three attempts at passing the comprehensive exam.
Department of Theatre

Address:
4949 Cherry Street #404
Honorary Patricia McIlrath Street
Kansas City, MO 64110
(816) 235-2702
Fax: (816) 235-6552
theatre@umkc.edu
http://cas.umkc.edu/theatre

Department Description
The Department of Theatre offers three degrees:

• Bachelor of Arts,
• Master of Arts centered in theatre history and dramatic literature or playwriting, either of which may include dramaturgy, and a
• Master of Fine Arts in acting or design and technology.

The department has a unique mandate. It is the only department in the state university system of Missouri empowered to grant the M.F.A. degree in theatre, the terminal degree for candidates preparing for a career in the professional theatre. Accordingly, the main thrust of the department is its master of fine arts programs that prepare professional actors, designers and technicians for the regional repertory and commercial production companies of the United States. Training in the master of fine arts programs is performance and production oriented. The unique arrangement by which the Department of Theatre and the Kansas City Repertory Theatre coexist, interact and support each other while using the same facilities provides ideal opportunities for candidates.

A training ensemble of experienced professionals is maintained to teach classes and address candidates' needs. In addition to the regular faculty, guest directors and visiting teachers are brought in from the professional world and from the ranks of the Kansas City Repertory Theatre to enhance training opportunities. Accreditation is by the National Association of Schools of Theatre (NAST). The Department is also a member of the University/Resident Theatre Association (U/RTA) and United States Institute of Theatre Technology (USITT).

Faculty
Lindsay Davis1 Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=davis); professor of theatre; B.A. (Harvard College); M.F.A. (New York University-Tisch School of the Arts).

Sadie DeSantis1 Contact Information; assistant teaching professor of stage management; B.A. (University of Pittsburgh); M.F.A. (University of Missouri-Kansas City).

Jeff Dreisbach; adjunct associate professor of theatre; B.F.A. (Wayne State University).

Gene Friedman Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=friedman); associate professor of theatre.

Charles Hayes Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=hayes); teaching professor of theatre; B.A. (Augustana College); M.F.A. (University of Iowa).

Ricardo Khan Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=khan); visiting professor of theatre (director, new project development); honorary doctorate (Rutgers University).

Felicia Londré1,2 Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=londre); curators' professor of theatre; B.A. (University of Montana); M.A. (University of Washington-Seattle); Ph.D. (University of Wisconsin-Madison).

Greg Mackender1 Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=mackender); teaching assistant professor of theatre sound.

Tom Mardikes1 Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=mardikes); chair, department of theatre, and professor of theatre sound; B.A., M.F.A. (University of Missouri-Kansas City).

Patricia A. McCorkle; adjunct professor of theatre; B.A. (Douglass College-Rutgers University); M.A. (New York University).

Carla Noack1 Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=noack); associate professor of theatre; B.A. (College of St. Benedict); M.F.A. (University of Missouri-Kansas City).

Sarah M. Oliver1 teaching assistant professor of theatre; B.F.A. (Kansas City Art Institute); M.F.A. (University of Missouri-Kansas City).
Stephanie Roberts Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=roberts); associate professor of theatre; B.F.A. in acting (Cornish University); M.F.A. in ensemble-based physical theatre (Dell' Arte International School of Physical Theatre).

Rowse, Shane Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=roberts); teaching assistant professor of lighting technology; B.A. (Simpson College).

Scott Stackhouse Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=stackhouse); assistant professor of theatre in acting and voice; B.A. (University of Missouri-Kansas City); M.F.A. (University of California-Los Angeles).

Theodore Swetz Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=swetz); The Patricia McIlrath Endowed Professor of Theatre Arts in Acting; B.A. (Lehman College of the City University of New York).

Victor Tan Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=tan); professor of theatre.

John Ezell professor emeritus of theatre.

Jennifer K. Martin; professor emerita of theatre.

Vincent Scassellati; associate professor emeritus of theatre.

Douglas C. Taylor; professor emeritus of theatre.

Members of UMKC Graduate Faculty

Members of UMKC Doctoral Faculty

Undergraduate

Undergraduate Degrees:
  • Bachelor of Arts: Theatre (p. 608)
  • Minor in Theatre (p. 612)

Graduate

Graduate Degrees:
  • Graduate Assistantships (p. 613)
  • Master of Arts: Theatre (p. 614)
  • Master of Fine Arts: Acting and Directing
  • Master of Fine Arts: Design and Technology (p. 616)

Courses

THEATRE 101 Introduction To Acting Credits: 3
An introductory course to acquaint the freshman theatre major and non-major student with the process of acting through relaxation and improvisational exercise.

THEATRE 113 Introduction To Technical Production Credits: 3
An introduction to the technical production process with emphasis on production organization, planning and scenic construction techniques. Required laboratory work.

THEATRE 121 Oral Interpretation Of Literature Credits: 3

THEATRE 130 Foundations Of Fine Arts Theatre Credits: 3
An introduction to theatre arts and a general orientation to the creative and technical aspects of live performance. Includes historical overview, analysis of the components of a play, and observation of and critical reaction to theatrical productions. Frequent guest speakers.

THEATRE 130 - MOTR THEA 100A: Theatre Appreciation

THEATRE 210 Introduction To Design For The Theater Credits: 3
An introduction to aesthetics and design for the theater in the areas of scenery, costume, lighting and sound. The emphasis is upon the theory, vocabulary, form, style, historical influences and process in each area. Attendance at theater productions is required. Course is taught by design faculty from each area.
THEATRE 295 Speech For The Theatre I Credits: 3
Training in voice and articulation and the techniques of adaptation to the needs of the artist-performer in the theatre: exercises to free the voice, develop effective breathing, tone production, articulation, flexibility of vocal production, and projection.

THEATRE 295A Speech For The Theater I Credits: 3

THEATRE 295B Speech For The Theater I Credits: 3

THEATRE 298 Movement For Actors Credits: 3
Basic movement training including relaxation and alignment techniques, exercises to increase physical facility and skills to enhance rhythmic coordination and physical characterization.

THEATRE 298A Movement For Actors Credits: 3

THEATRE 298B Movement For Actors Credits: 3

THEATRE 300 Acting I Credits: 3
Basic principles of dramatic performance: training in voice, movement and language as an organic developmental whole.

THEATRE 315 Acting II Credits: 3
Textual analysis, characterization and building a role.
Prerequisites: THEATRE 300.

THEATRE 317 Scene Design Credits: 3
Introduces the mechanics of layout: perspective, basic drafting techniques, front elevation and floorplan execution. Second half of the semester emphasizes scenic design as an art form. Recommended Preparation: THEATRE 311.
Prerequisites: THEATRE 113.

THEATRE 325 Acting III Credits: 3
Study and practice of period and contemporary styles of acting.
Prerequisites: THEATRE 315.

THEATRE 329 Master Class In Acting Credits: 2
(A,B,C,D) Class in advanced studies in acting. May be repeated for credit up to eight hours and guest artist change.
Prerequisites: THEATRE 325.

THEATRE 329A Master Class In Acting Credits: 2

THEATRE 329B Master Class In Acting Credits: 2

THEATRE 329C Master Class In Acting Credits: 2

THEATRE 329D Master Class In Acting Credits: 2

THEATRE 333 History of Costuming I Credits: 3
The study of the history of European costume, with emphasis on the social and economic ramifications of costuming through the ages.

THEATRE 340 Stage Makeup Credit: 1
Lecture and laboratory work in the fundamentals of makeup for the stage.

THEATRE 350 Theatre History I Credits: 3
Development of theatre art, including the physical stage, technical production elements, dramatic literature, and audience behavior from primitive origins to the 18th century.

THEATRE 351WI Theatre History II Credits: 3
Development of Theatre art, including the physical stage, technical production elements, dramatic literature, and audience behavior from the 18th century to the present.
Prerequisites: RooWriter.

THEATRE 352 History of Costuming II Credits: 3
The study of the history of Non-European costume, with emphasis on the social and economic ramifications of costuming through the ages.

THEATRE 371 Stage Lighting Credits: 3
Stage Lighting is the study of light as a design element. Students will learn the foundation of lighting design theory, technical methods, and general theatrical procedure through lectures, laboratory and crew work. Theatrical genres will vary by semester.
Prerequisite: THEATRE 210.

THEATRE 372 Stage Lighting Technology Credits: 2
This course is a comprehensive study of contemporary technical equipment and its usage to actualize lighting design. Areas of emphasis include photometric, color and color theory, lighting control systems, lighting control operations, cueing techniques, data control of intelligent lighting equipment, lighting fixtures, dimming system, hand drafted light plot standards, CAD light plot drafting, lighting specific software programs, video and image projections, and optical special effects. Theatrical genres will vary by semester.
THEATRE 374 Professional Projection Design Credits: 3
This course in projection design for the performing arts will give students an overview of the discipline and introduce students to ideas and technologies used in this field. Through the three weekend sessions, students will learn the practical applications of projection design and the techniques of projection controls. Recommended preparation: basic, fundamental knowledge of computers and basic, fundamental knowledge of theatre designs.
Prerequisites: THEATRE 210.

THEATRE 378 Stage Management I Credits: 3
A functional analysis of the duties and responsibilities of the stage manager, with particular reference to the organization and conducting of rehearsals and performances, professional practices and union requirements. Requires student to be an assistant to a stage manager on a University or an KC Rep production. The first of a two-semester requirement in stage management for theater majors.

THEATRE 400 Special Problems In Theatre Credits: 1-6
(A-M) Research and/or production projects for advanced upperclass students. No more than three hours with any one instructor. (A) Acting; (B) Children's Theatre; (C) Costumes; (D) Scenic Design; (E) Directing; (F) History; (G) Lighting; (H) Playwriting; (I) Sound; (J) Stage Management; (K) Technical Production (L) Theatre Management; (M) Theory and Criticism.

THEATRE 400A Special Problems In Theatre: Acting Credits: 1-6
THEATRE 400B Special Problems In Theatre: Design Credits: 1-6
THEATRE 400C Special Problems In Theatre: Costumes Credits: 1-6
THEATRE 400D Special Problems In Theatre: Scenic Design Credits: 1-6
THEATRE 400E Special Problems In Theatre: Directing Credits: 1-6
THEATRE 400F Special Problems In Theatre: History Credits: 1-6
THEATRE 400G Special Problems In Theatre: Lighting Credits: 1-6
THEATRE 400H Special Problems In Theatre: Playwriting Credits: 1-6
THEATRE 400I Special Problems In Theater: Sound Credits: 1-6
THEATRE 400J Special Problems In Theatre: Stage Management Credits: 1-6
THEATRE 400L Special Problems In Theatre: Theatre Management Credits: 1-6
THEATRE 400M Special Problems In Theatre: Theory And Criticism Credits: 1-6
THEATRE 400N Special Problems In Theatre: Dramaturgy Credits: 1-6
THEATRE 400R Special Problems In Theatre Credits: 1-6
THEATRE 400S Special Topics In Theatre Credits: 1-6
THEATRE 400T Special Problems In Theatre Credits: 1-6
THEATRE 400V Special Problems in Theater Credits: 1-6
THEATRE 403 Theatre Company & Production Credit: 1
This course serves (1) as a weekly company meeting for Theatre majors, (2) an organizing point for production assignments and duties for the semester, and (3) a study of a special topic which will change each semester. Course is repeatable. Required of Majors for every semester they are enrolled.
Prerequisites: Theatre Majors and Minors.

THEATRE 415 Beginning Directing Credits: 3
Theory and process of play production, including interpretation, composition, picturization, movement, rhythm, and character interpretation.

THEATRE 431 Rendering Techniques For The Theatre Designer I Credits: 3
Introduces the mechanics of handling black and white media to develop three-dimensional technique with an emphasis on observational training and object drawing.

THEATRE 432 Costume Design Credits: 3
The practice of the theatrical costume design, leading to the preparation of designs for production, and the execution of designs in actual costuming for the stage.
THEATRE 432A Costume Design Credits: 3
THEATRE 432B Costume Design Credits: 3
THEATRE 432C Costume Design Credits: 3
THEATRE 432D Costume Design Credits: 3
THEATRE 437 Playwriting I Credits: 3
Theory and practice of writing for the theatre with emphasis on the basic techniques.
THEATRE 438 Playwriting II Credits: 3
Theory and practice of writing for the theatre with emphasis on advanced techniques.
THEATRE 476 Theatre Sound And Electronics Credits: 3
Study of electronic principles used in audio and control devices. Concentrates on applying knowledge to using the equipment employed in the theatre such as sound-effect systems, inter-communication equipment, and includes a special section on the creation of sound and music for theatre productions.
THEATRE 478 Stage Management II Credits: 2
Practicum course in stage management. Requires stage management of a University production and/or assistant stage management of an KC Rep production and/or assistant stage management of a main stage University production.
Prerequisites: THEATRE 378.
THEATRE 497 Repertory Theatre Credits: 3-6
Apprentice-level responsibilities for Theatre 497 are as follows: apprentices will be used in as many production areas as possible: (1) as actors in small roles and/or extras or supers; (2) as understudies if possible; (3) as needed in the following departments: (a) properties; (b) carpentry and the shop; (c) lighting; (d) costumes; (e) house management; (f) stage management; (g) running crews.
Prerequisites: Selection for apprenticeship by departmental chairman.
THEATRE 5500RA Theatre Collaboration Credits: 1-2
A course for M.F.A. students exploring the collaboration/communication process in preparing a production. Must be elected by all students assigned to design, direct, technical direct or stage manage within the current or the following semester. Maximum of 8 hours applicable towards degree.
THEATRE 5501R Voice Training Credits: 2
(A,B,C,D) Training for the speaking and singing voice, development of skills in vocal dynamics, physical control, and relaxation for the actor, dialects and verse structure. Four semesters required for acting emphasis.
THEATRE 5506RR French Drama And Theatre Credits: 3
Study of significant plays and production methods in France from medieval times to the present. Particular emphasis will be given to the plays of Moliere, Racine, and Corneille, and to internationally renowned contemporary directors.
THEATRE 5507 19th-Century Continental Theatre Credits: 3
Production of significant French, German, Russian, Spanish, and Scandinavian plays and playwriting of the 19th century. Particular emphasis will be given to plays representative of romanticism, realism, naturalism, fin-de-siecle decadence, and intensive study of production history.
THEATRE 5508 20th-Century Continental Theatre Credits: 3
Study of the production of significant plays of Continental Europe from Strindberg to the present. Dramatic literature will be related to artistic currents such as expressionism, surrealism, the absurd, and where applicable, to political currents.
THEATRE 5509 Russian Drama And Theatre Credits: 3
Study of the production of Russian and Soviet plays with reference to the development of theatre art from the Christianization of Russia to contemporary post-Soviet drama.
THEATRE 5510 History Of The American Theatre I Credits: 3
An exploration of the trends in and the development of the American theatre from Colonial times to 1900.
THEATRE 5511 History Of The American Theatre II Credits: 3
An exploration of the trends in and the development of the American theatre for 1900 to the present.
THEATRE 5512R History Of The English Stage I Credits: 3
The English stage and its arts, crafts and literature from the medieval cycles through the Restoration.
THEATRE 5513 History Of The English Stage II Credits: 3
Development of English and Irish theatre art and dramatic literature from the 18th century to the present.
THEATRE 5514 History of Design And Technology I Credits: 3
The study of period style and scenic, costume, lighting, and technical production practices from the ancient world through the 17th century. The course will emphasize the application of research toward the presentation of period plays and contemporary production.
THEATRE 5515R History of Design And Technology II Credits: 3
The study of period style and scenic, costume, lighting, and technical production practices from the 18th century to the present. The course will emphasize the application of research toward the presentation of period plays and contemporary production.
THEATRE 5516A Technical Production for The Practitioner Credits: 3
The course is an in-depth review of technologies in scenery, lighting and stage operations, expansion of that knowledge, and application of it to the individual class member's particular theatre. Classroom material is augmented by hands-on experience in a controlled laboratory situation. Students should have a prerequisite of a basic technical theatre course or considerable practical experience. This course can be repeated for credit.

THEATRE 5516B Technical Production for The Practitioner Credits: 3
See course description for THEATRE 5516A.

THEATRE 5517A Professional Stage Management I Credits: 3
A functional analysis of the responsibilities of the professional stage manager. Requires the student to be an assistant stage manager on a University or KC Rep production.

THEATRE 5517B Professional Stage Management II Credits: 2
Practical course in stage management. Requires student to stage-manage or assistant stage-manage a production.
Prerequisites: THEATRE 5517A.

THEATRE 5517C Equity Assistant Stage Management Credits: 2
This course develops a skill set for professional assistant stage managers. Class will discuss duties and paperwork and how to supplement the work of the stage manager.

THEATRE 5517D Opera Stage Management Credits: 3
Class covers duties of the opera stage manager, including how to follow an opera score.

THEATRE 5517E Union Contracts for Actors and Stage Managers Credits: 2
Students study and discuss all the rules in the Equity Rule Book.

THEATRE 5517F Professional Production Management in Theatre Credits: 2
This course is a seminar on the duties, planning, negotiations, and problem solving techniques of the professional theatre production manager.
Prerequisites: THEATRE 5517A.

THEATRE 5520 Individual Performance Studies Credits: 1-2
(A,B,C) Private instruction for the advanced student.

THEATRE 5520L Individual Performance Studies Credits: 1-2

THEATRE 5521A Professional Sound Design Credits: 3
Professional Sound Design is a series of four courses constructed to develop the designer's skills from research and initial sound collection, into interpretation, collaboration and idea development, concluding with the production of finished designs for the MFA productions. Each section deals with problems of increasing complexity beginning with "found" design material for early production and leading to indigenous designs created and layered for complex production support. The course may be taken once or twice for non-sound designers with the full cycle being required for the sound design emphasis.

THEATRE 5521B Professional Sound Design Credits: 3
THEATRE 5521C Professional Sound Design Credits: 3
Professional Sound Design is a series of four courses constructed to develop the designer's skills from research and initial sound collection, into interpretation, collaboration and idea development, concluding with the production of finished designs for the MFA productions. Each section deals with problems of increasing complexity beginning with "found" design material for early production and leading to indigenous designs created and layered for complex production support. The course may be taken once or twice for non-sound designers with the full cycle being required for the sound design emphasis.

THEATRE 5521D Professional Sound Design Credits: 3
Professional Sound Design is a series of four courses constructed to develop the designer's skills from research and initial sound collection, into interpretation, collaboration and idea development, concluding with the production of finished designs for the MFA productions. Each section deals with problems of increasing complexity beginning with "found" design material for early production and leading to indigenous designs created and layered for complex production support. The course may be taken once or twice for non-sound designers with the full cycle being required for the sound design emphasis.

THEATRE 5522 History of Costuming I Credits: 3
The study of the history of European costume, with emphasis on the social and economic ramifications of costuming through the ages.

THEATRE 5523 History of Costuming II Credits: 3
The study of the history of Non-Western costume, with emphasis on the social and economic ramifications of costuming through the ages.

THEATRE 5524 Rendering Techniques for the Theatre Designer I Credits: 3
Introduces the mechanics of handling black and white media to develop two and three-dimensional techniques with an emphasis on observational training and object drawing, as well as white model and/or maquette construction, materials and techniques.

THEATRE 5530 Drafting for The Theatre Credits: 3
Practical laboratory course in drafting for the theatre encompassing floor plans, sections, designer's evaluations, front and rear elevations, working drawings, and problems in communicating design ideas.
THEATRE 5531R Rendering Techniques for the Theatre Designer II
Credits: 3
Continuation of Rendering Techniques with the introduction of color, pastels, watercolor and goauche. Skills are applied in developing projects for design in the theatre.

THEATRE 5532 Professional Costume Design
Credits: 3
(A, B, C, D) The courses in Professional Costume Design are intended to develop the costume designer’s skills in research, rendering and drawing. Each section will deal with specific problems of design, such as period, line, silhouette, color and texture. Specific problems in design from realistic to stylized productions will be worked on by the students. The course may be taken once or twice by non-costume designers with the full cycle being required for costume emphasis.

THEATRE 5534 Costume Construction I
Credits: 3
(A,B,C) Research and methodology into one or more of the following areas of costume construction for the stage: period pattern and tailoring adaptation, work with non-woven materials, and the cutting and finishing of costumes for the stage. May be repeated up to six hours with content change and permission of instructor.

THEATRE 5535 Technical Studies In Costuming And Makeup
Credits: 3
(A,B,C) Concentration in one or more of the arts and crafts necessary to costume design. Areas to be chosen from include: fabric dyeing and painting, millinery, wig design and construction, latex prosthetic, and decorative accessories for the stage. May be repeated up to six hours with content change and permission of instructor.

THEATRE 5536 Professional Scene Design
Credits: 3
(A,B,C,D) Professional Scene Design is a series of courses constructed to develop the designer’s skills from research and initial sketches to finished renderings, models and working drawings. Each successive section deals with problems of increasing complexity beginning with one-set realistic productions through unit-settings, stylization and multiple setting problems. The course may be taken once or twice for non-set designers with the full cycle being required for the scene design emphasis.

THEATRE 5538 Scene Painting
Credits: 3
A practicum course in scene painting techniques and execution. Introduction to painting equipment and supplies, priming and preparation of surfaces and materials, standard techniques for painting ornament.

THEATRE 5540 Pattern Drafting And Cutting
Credits: 3
Theory and laboratory study of the techniques and methods employed in drafting patterns for the professional stage.

THEATRE 5545 Professional Acting Techniques I
Credits: 3
Theatre games, exercises, mask work, and some scene study to develop the first year acting/directing class into a training ensemble, instill a clear and uniform vocabulary, heighten awareness, and begin concentrated skill work. The semester will culminate in a class project.

THEATRE 5546 Professional Acting Techniques II
Credits: 3
Continuation of THEATER 5545 with emphasis on the application of the first semester’s work through scene study of contemporary plays and monologues.

THEATRE 5549 Master Class In Acting
Credits: 2
(A,B,C,D) Class in advanced studies in acting. May be repeated for credit up to eight hours as content and guest artist change. Permission of instructor or head of area required. Required for third year graduate acting students in the fall semester and may be repeated subsequently as elective.

THEATRE 5551 Rendering Techniques for the Theatre Designer III
Credits: 3
Developing techniques for rendering in realistic settings: interiors, landscapes, fabric and furnishings.

THEATRE 5552R Rendering Techniques for the Theatre Designer IV
Credits: 3
Developing techniques for rendering in non-realistic styles with the emphasis on imaginative designs, light and air, created textures, etc.

THEATRE 5557 Theatre History I
Credits: 3
Development of theatre art-including dramatic literature, staging, and performance styles-from the beginning through the 17th century. This course also looks at Asian theatre forms. Students read approximately 20 plays.

Prerequisites: Graduate Status.

THEATRE 5556 Theatre History II
Credits: 3
Development of western theatre art-including dramatic literature, staging, and performance styles-from the 18th century to the present. Students will read approximately 24 plays.

Prerequisites: Graduate Status.
THEATRE 5562 Actor Practicum Credits: 3
A contemporary scene study class for actors. Actors test their acquired process skills with major emphasis placed on characterization.

THEATRE 5563 Text Analysis I Credits: 3
Linear analysis of selected prose dramas with concentration on character delineation, images and motivation for actors and directors.

THEATRE 5564 Text Analysis II Credits: 3
Continuation of THEATRE 5563 with emphasis on verse plays. Selected playwrights from the Greek and Elizabethan periods will be included along with modern verse dramatists.

THEATRE 5565 Introduction To Professional Directing Credits: 3
The first part of the class is devoted to an intensive study of varied and diverse concepts related to the dramatic experience by dramatists, critics, and directors. The class also examines current production methods and practices for today's functioning professional director. Systems related to stage management and actors are investigated.

THEATRE 5566 Professional Directing Practicum Credits: 3
This class will move from concept to production. Work will revolve around the presentation of production concept statements in which the director will select, organize and articulate the theatrical substance in support of his or her chosen concept. Intensive analysis will lead to the development of an image/metaphor for production. Term will include presentation of a full book justifying concept choices for scenic, costume, music and dance, and, finally, full production.

THEATRE 5568 Seminar In Dramaturgy Credits: 3
Critical analysis of dramatic structure and techniques, with special reference to modern and contemporary drama.

THEATRE 5569 Master Class in Directing Credits: 2
(A,B,C,D) Class in advanced studies in directing. May be repeated for credit up to eight hours as new material and guest artist change. Graduate students elect THEATRE 5569.

THEATRE 5570 Professional Lighting Design Credits: 3
(A, B, C, D) Professional Lighting Design is a series of courses concerned with the study of light as a design element. Projects to implement design theory are primarily selected from the areas of dramatic, musical and opera theatre, and dance. Emphasis is on the design process with each successive section dealing with problems of increasing complexity. Areas of study and projects are chosen on the basis of individual levels of development. When elected by non-lighting designers the course may be elected for a maximum of two semesters.

THEATRE 5571A Professional Projections Design I Credits: 3
This course examines the techniques of theatrical projection design. Focus will be on the manipulation of projected images, and the fundamental use and control of automated projectors. This hands-on laboratory class will instruct students in the use of state of the art projection equipment and control consoles.

THEATRE 5571B Professional Projections Design II Credits: 3
This class will teach students how to design projections. Students will learn the practical applications of projection design as well as the theoretical and critical thinking necessary to successfully complete a projection design assignment. This class will culminate with the presentation of an assigned projection design or a realized projection design.

Prerequisites: THEATRE 5571A

THEATRE 5572 Stage Lighting Technology Credits: 2
This course is a comprehensive study of contemporary technical equipment and its usage to actualize lighting design. Areas of emphasis include photometric, color and color theory, lighting control systems, lighting control operations, cueing techniques, data control of intelligent lighting equipment, lighting fixtures, dimming system, hand drafted light plot standards, CAD light plot drafting, lighting specific software programs, video and image projections, and optical special effects. Theatrical genres will vary by semester.

THEATRE 5573 Professional Technical Production Credits: 3
Detailed study and experimentation with recent scenic materials, scenery construction, rigging systems, use of metal and special effects.

THEATRE 5574 Theatre Regulations, Laws and Safety Credit: 1
Survey of fire, city and Equity codes, and insurance, liability, health rules and regulations related to theater operation. Union and legal contracts, philosophy and relations with theatre facilities and operations.

THEATRE 5575R Property Construction Credits: 3
Construction techniques and materials used to make and modify set and hand properties and set dressing.

THEATRE 5577 Advanced Materials Credits: 3
(A,B,C,D) The theatre technician and designer are dependent on a wide range of materials in the creation of their art. Each semester the student will pursue detailed study of a material area (i.e., wood, metal, plastics, textiles), the processes of its usage and its related process-products (i.e., adhesives, paints, dyes, etc.). Field trips and hands-on laboratory work are integral to the course.

THEATRE 5578 Professional Theatre Administration Credits: 3
Theories, problems and techniques preparing the student for effective interaction with professional theater administration, offering a foundation for potential theatre administrators as well as enrichment for students of directing, design, technical and stage management.
THEATRE 5579R Master Class In Design Credits: 2
(A,B,C,D) Class in advanced studies in design. May be repeated for credit up to eight hours as content and guest artist change.

THEATRE 5580R Graduate Technical Student Seminar Credits: 2
(A,B,C,D,E,F) Required in every semester for Design/Tech M.F.A. candidates choosing a technology emphasis. This continuing seminar course serves as a forum for all graduate technical students to analyze and discuss problems and solutions on current academic and KCRep productions. The course develops collaborative skills through the sharing of ideas and experiences. In addition, topics of general interest to the technician will be studied through guest lecturers and/or individual projects prepared by the faculty and students and presented to the class.

THEATRE 5583 Seminar on Technical Production Management Credits: 2
Seminar involving shop organization, scheduling, purchasing, lending and borrowing, rentals, personnel, job description, organizing structure, etc. Emphasis upon organization and techniques for repertory theatre operation.

THEATRE 5584 Master Class In Technology Credits: 2
(A,B,C,D) Class in advanced studies in technology. May be repeated for credit up to eight hours as content and guest artist change.

THEATRE 5585 Advanced Technical Drafting Credits: 3
An intensive drafting course required for Design/Tech M.F.A. candidates with emphasis in technology. The course aims to equip the student to prepare clear shop working drawings from designer elevations. Topics include both conceptual planning techniques and developing mechanical drawing skills. One hour lecture, four lab hours, and extensive outside preparation.

THEATRE 5586 Structural Design for the Stage Credits: 3
A course in the structural design of scenic elements. The student learns to work within the visual restrictions imposed by the designer to build structures that will bear given load requirements with a minimum of deflection. Basic engineering and load analysis principles are studied and applied in the design procedure to find the best possible solutions in terms of strength, weight, safety and cost.

THEATRE 5587 Structural Design for the Stage II Credits: 3
This course is designed to give an introduction to the physics behind structural design and to guide the student through the process of designing safe, effective structural scenery for the theatre.

Prerequisites: THEATRE 5586.

THEATRE 5590 Directed Graduate Studies Credits: 3-6
Individual projects on the graduate level. No more than three hours with any one instructor. Only one 590 each semester.

THEATRE 5590A Directed Graduate Studies Credits: 3-6
THEATRE 5590B Directed Graduate Studies: Design Credits: 3-6
THEATRE 5590C Directed Graduate Studies: Costumes Credits: 3-6
THEATRE 5590D Directed Graduate Studies: Scenic Design Credits: 3-6
THEATRE 5590E Directed Graduate Studies: Directing Credits: 3-6
THEATRE 5590F Directed Graduate Studies Credits: 3-6
THEATRE 5590G Directed Graduate Studies: Lighting Credits: 3-6
THEATRE 5590H Directed Graduate Studies: Playwriting Credits: 3-6
THEATRE 5590I Directed Graduate Studies Credits: 3-6
THEATRE 5590J Directed Graduate Studies: Stage Management Credits: 3-6
THEATRE 5590K Directed Graduate Studies: Technical Production Credits: 3-6
THEATRE 5590L Directed Graduate Studies: Theatre Management Credits: 3-6
THEATRE 5590M Directed Graduate Studies: Theory And Criticism Credits: 3-6
THEATRE 5590N Directed Graduate Studies: Dramaturgy Credits: 3-6
THEATRE 5590O Directed Graduate Studies Credits: 3-6
THEATRE 5590P Directed Graduate Studies Credits: 3-6
THEATRE 5590Q Directed Graduate Studies Credits: 3-6
THEATRE 5590R Directed Graduate Studies Credits: 3-6
THEATRE 5590S Directed Graduate Studies Credits: 3-6
THEATRE 5590T Directed Graduate Studies Credits: 3-6
THEATRE 5592A Seminar on Stage Management Practice Credit: 1
MFA student stage managers meet one hour a week with the Production Manager of both Kansas City Repertory Theatre and Department of Theatre (and head of stage management training), to discuss current management problems and solutions for productions in progress. The seventeen productions mounted each year by the Department and the Rep will be examined. Students will become aware of problem solving procedures in both the professional and the academic theatre.

Prerequisites: Graduate Stage Management Student.
THEATRE 5592B Seminar on Stage Management Practice Credit: 1
MFA student stage managers meet one hour a week with the Production Manager of both Kansas City Repertory Theatre and Department of Theatre (and head of stage management training) to discuss current management problems and solutions for productions in progress. The seventeen productions mounted each year by the Department and the Rep will be examined. Students will become aware of problem solving procedures in both the professional and the academic theatre.
Prerequisites: Graduate Stage Management Student.

THEATRE 5592C Seminar on Stage Management Practice Credit: 1
MFA student stage managers meet one hour a week with the Production Manager of both Kansas City Repertory Theatre and Department of Theatre (and head of stage management training) to discuss current management problems and solutions for productions in progress. The seventeen productions mounted each year by the Department and the Rep will be examined. Students will become aware of problem solving procedures in both the professional and the academic theatre.
Prerequisites: Graduate Stage Management Student.

THEATRE 5592D Seminar on Stage Management Practice Credit: 1
MFA student stage managers meet one hour a week with the Production Manager of both Kansas City Repertory Theatre and Department of Theatre (and head of stage management training) to discuss current management problems and solutions for productions in progress. The seventeen productions mounted each year by the Department and the Rep will be examined. Students will become aware of problem solving procedures in both the professional and the academic theatre.
Prerequisites: Graduate Stage Management Student.

THEATRE 5592E Seminar on Stage Management Practice Credit: 1
MFA student stage managers meet one hour a week with the Production Manager of both Kansas City Repertory Theatre and Department of Theatre (and head of stage management training) to discuss current management problems and solutions for productions in progress. The seventeen productions mounted each year by the Department and the Rep will be examined. Students will become aware of problem solving procedures in both the professional and the academic theatre.
Prerequisites: Graduate Stage Management Student.

THEATRE 5597 Repertory Theatre: Internship Credits: 3-6
Assignments available in the following areas: directing, design, carpentry, lighting, costume, props, acting, stage management. Technical interns will be assigned by the appropriate heads of those areas. Acting interns may understudy and/or play roles with the Kansas City Repertory Theatre on the Spencer stage or in showcase productions. Also, interns will have some responsibility in technical areas such as change-over, props, costume, running crew, and stage management. Directing interns may assist director or assistant stage manager.
Prerequisites: Selection by chairman of department.

THEATRE 5598 Research And Performance Credits: 1-6
Primarily for the M.F.A. student. Permission of the graduate faculty.

THEATRE 5599 Research And Thesis Credits: 1-6

THEATRE 5697 Repertory Theatre: Residency Credits: 6
The residency consists of authorized participation with the Kansas City Repertory Theatre, the Department of Theatre, or an approved outside professional company, and is arranged under departmental advisement, with the chairman of the department, and in consultation with the artistic director of KCRep. The assignment will be determined by matching interest and degree emphasis with available production assignments.

THEATRE 5899 Required Graduate Enrollment Credit: 1

THEATRE H101 Introduction To Acting Credits: 3
An introductory course to acquaint the freshman theater major and non-major student with the process of acting through relaxation and improvisational exercise.

THEATRE H113 Introduction To Technical Production Credits: 3
An introduction to the technical production process with emphasis on production organization, planning and scenic construction techniques. Required laboratory work.

THEATRE H210 Introduction To Design For The Theater Credits: 3
An introduction to aesthetics and design for the theater in the areas of scenery, costume, lighting and sound. The emphasis is upon the theory, vocabulary, form, style, historical influences and process in each area. Attendance at theater productions is required. Course is taught by design faculty from each area.

THEATRE H315 Acting II Credits: 3
Textual analysis, characterization and building a role.
Prerequisites: THEATRE 300.
THEATRE H350 Theater History I-Honors Credits: 3
THEATRE H351WI Theater History II Credits: 3
Development of Theater art, including the physical stage, technical production elements, dramatic literature, and audience behavior from the 18th century to the present.
Prerequisites: RooWriter.
Bachelor of Arts: Theatre

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

- Have the ability to analyze literary and theatrical values of world dramatic literature.
- Have the ability to communicate ideas in clear and correct writing.
- Have a fundamental understanding of the actor's vocal instrument.
- Have the ability to identify a playable action and implement it in performance.
- Have the ability to work in collaboration with an ensemble of artists.
- Have a fundamental knowledge of research methods through which to gain an understanding of the circumstantial life of a character.
- Have a fundamental understanding of the foundational theatrical design process.
- Have the ability to communicate theatrical collaboration in a visual medium.
- Have a fundamental understanding of the actor's physical instrument.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>Anchor I</td>
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<td>Anchor II</td>
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<td>Anchor III</td>
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<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
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<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
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<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
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<tr>
<td>Focus A</td>
<td>(Satisfied in program requirements below)</td>
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<tr>
<td>Focus B</td>
<td>(Satisfied in program requirements below)</td>
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</tr>
<tr>
<td>Focus C</td>
<td>(May be satisfied by the Constitution course requirement below)</td>
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<tr>
<td>Focus Elective</td>
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</table>

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits: 21

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
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<td><strong>Choose one of the following:</strong></td>
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<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
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<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
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<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
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<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
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<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
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<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
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</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

College of Arts & Sciences Degree Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. Additional details are available in the Student Services (p. 622) section of the catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>ALEKS Math Placement</td>
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<tr>
<td>Arts and Humanities Division of CAS ¹</td>
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<td>3</td>
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<tr>
<td>Science and Math Division of CAS</td>
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<tr>
<td>Social and Behavioral Sciences Division of CAS</td>
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<tr>
<td>Writing Intensive Course (300-level or above; Satisfied in program requirements below)</td>
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<tr>
<td>Foreign Language (3rd Semester Level)</td>
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<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above Math/Stat course )</td>
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<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
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<tr>
<td>or MATH 120</td>
<td>Precalculus</td>
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<td>Laboratory Science Experience</td>
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<td>Total Credits</td>
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¹ ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below do not fulfill this requirement.

² This requirement may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

Major Requirements

The main objective of the B.A. in Theatre is to give students a broad education. The degree requirements for the B.A. in Theatre furnish our majors with a well-rounded education in all aspects of theatre. While the program is broad in its scope, it allows students the opportunity to develop specific areas of interest by choosing from one of three interest areas.

General Theatre Interest Area

The general theatre interest area is for students who want the flexibility to explore all areas of theatre. They can choose from a wide variety of courses including stage management, design, performance and playwriting.
Performance Interest Area
Students interested in performance may select the performance area. Courses are geared toward students who want a professional career as an actor or want to prepare for placement in a top graduate program. Students receive instruction in voice, movement, acting, Shakespeare and specialty areas such as stage combat or physical theatre.

Design/Tech Interest Area
Students interested in areas of technical theatre and design are offered the opportunity to develop the skills necessary to work in the professional theatre or attend a top graduate school. Within this area students might choose to emphasize a particular area, such as scenic design, costume design, lighting design, sound design, or stage management.

All Theatre Majors
Production experience as well as internship opportunities give undergraduate theatre majors the chance to apply classroom theory to practical situations. Taking part as a crewmember, designer or performer in one of the departmental productions is an integral part of the theatre experience at UMKC. In a typical year there are two undergraduate productions in addition to as many as seven department productions, providing plenty of opportunity. The department also has relationships with many professional theatres. Internships and job opportunities frequently occur from these relationships.

Students must earn a grade of C- or above in all courses required by the major.

Students must successfully complete the major requirements below with at least 12 hours of the noted upper division (300+) course requirements completed at UMKC.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<td>Non-Departmental Requirements</td>
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<tr>
<td>ART-HIST 110</td>
<td>Introduction to the History of Art: Pyramids to Picasso</td>
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<tr>
<td>CONSVTY 120</td>
<td>Music Appreciation</td>
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<td>Required Courses</td>
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<td>THEATRE 113</td>
<td>Introduction To Technical Production</td>
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<td>THEATRE 130</td>
<td>Foundations Of Fine Arts Theatre</td>
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<td>THEATRE 210</td>
<td>Introduction To Design For The Theater</td>
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<td>THEATRE 350</td>
<td>Theatre History I</td>
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<td>Theatre History II</td>
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<td>THEATRE 378</td>
<td>Stage Management I</td>
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<td>THEATRE 403</td>
<td>Theatre Company &amp; Production (required every fall and spring of enrollment)</td>
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<td>THEATRE 415</td>
<td>Beginning Directing</td>
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<td>THEATRE 497</td>
<td>Repertory Theatre</td>
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<td>Interest Areas</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

Undergraduates can choose from the following interest areas:  
General Theatre  
Performance  
Design/Technology

Total Credits: 56

Due to the number of shop/production hours required, THEATRE 113 and THEATRE 378 should be taken in different semesters.

Contact the Theatre Department for interest area recommended courses.

General Electives
Students must take elective credit hours to meet the minimum credit hour requirement for their degree, including at least 36 credit hours of coursework at the 300-level or above. The minimum required by the university is 120 credit hours, of which at least 30 credit hours must be taken at UMKC, but some degree programs require more.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0

Total Credit Hours: 120
Tools for Planning and Fulfilling Academic Requirements

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Theatre Minor

Program Requirements

A minor in theatre consists of a minimum of 18 credit hours, including THEATRE 130\(^1\), and 15 additional hours approved by the theatre academic advisor. A minimum of 9 hours must be completed at the 300-400 level.

It is the intention of the theatre faculty that the minor be general with courses from various areas of theatre, rather than a specialty in one area.

Students must earn a grade of C- or above in all courses required by the minor.

\(^1\) Theatre minors must enroll in the “for majors” section of THEATRE 130 offered in the Spring semester. For class permission to enroll, contact academic advisor Cindy Stofiel, (816) 235-6683, stofielc@umkc.edu, 120 PAC.
Graduate Assistantships

Graduate assistantships are available in the following areas: acting, costume, lighting, stage management, scene shop carpentry, scene painting, sound, property construction, house management, technical direction, publicity and departmental assistance with THEATRE 130.
Master of Arts in Theatre

Student Learning Outcomes

Students graduating from this program will:

• Be well-read, appreciative of, and able to discuss a broad sampling of world dramatic literature
• Be able to converse about and teach a survey of theatre history, as well as some specialized knowledge of a chosen era, aesthetic movement or artist in a historical-cultural context
• Demonstrate research skills that will make it possible to pursue the Ph.D.
• Communicate ideas in clear and correct writing and spoken English
• Be familiar enough with various components of the art of the stage to be able to interact with theatre professionals.

Program Requirements

The M.A. degree in theatre is a research-oriented, two-year degree that will prepare students for admission to Ph.D. programs. A minimum of 36 hours is required. Students may plan their programs centered on theatre history and dramatic literature or on playwriting, either one with an optional component in dramaturgy. Opportunities exist for M.A. students to serve as dramaturg or assistant to the director of academic and professional productions. A thesis is required to complete the degree. M.A. students are subject to the General Graduate Academic Requirements of the University for graduate study.

M.A. candidates are expected to maintain at least a 3.0 grade point average.
Master of Fine Arts in Acting and Directing

Student Learning Outcomes

Students graduating from this program will:

- A detailed understanding of their individual processes as actors through which they find the physical, vocal, emotional and intellectual availability to meet the requirements of a given role.
- A working knowledge of the human voice as a primary means of communication.
- A working knowledge of the human body as a primary means of communication.
- A working knowledge of the human psyche as a primary means of motivation.
- A working knowledge of research methods through which to gain an understanding of the circumstantial life of a character.
- An experiential knowledge of theatrical performance genres from classical roots through contemporary theatre.
- A strong familiarity with a wide range of dramatic literature.
- The ability to work with directors of varying working processes and communication styles.
- The ability to work in collaboration with an ensemble of artists.

Program Requirements

The acting program is a three-year, minimum 60-credit-hour professional actor-training program interacting with the Kansas City Repertory Theatre, a professional Equity LORT B Theatre. M.F.A. students are subject to the General Graduate Academic Requirements (p. 1189) of the University for graduate study.

First Year

The first year of training is a highly disciplined, process-oriented period of study including: a morning group warm-up; collaboration class which integrates students and faculty from each area of study; intensive breath and vocal production; basic speech work; introductory dialect work; text analysis; applicable fitness and nutritional programs, alignment and self-use process; physical approaches to characterization including physical isolations and effort shape; neutral, emotional and character mask work; ballroom dance. We pursue intensive exploration of creative technique, based on Constantin Stanislavski, Stella Adler and Morris Carnovsky's principles of theatrical truth; building a character; and ensemble play. Performance work includes the first-year "Discovery Project", that usually is inspired by classical material. Other projects may center around social issues of the day or character searches.

Second Year

In the second year of training the student actor continues with a morning warm-up; collaboration class; voice production along with continued speech and dialect work and a focus on heightened text and extended voice; private and ensemble singing tutorials; stage combat (unarmed, rapier, dagger; subtle energy work; period-style movement including social convention and dance; Commedia dell' arte characterization, mask work and personal clown; continued work on acting Shakespeare; intensive work on Moliere verse text integrated with the period-style movement and comic technique; restoration or other heightened language text; and application of the actor's process to audition technique and contemporary text. Essential Meisner work is folded into exploration of creative technique. Second-year actors begin public performance work with guest and faculty directors on new, contemporary and period plays chosen specifically for the training. Occasionally, roles at the Kansas City Repertory Theatre, and other professional theatres in town, are available for second-year actors.

Third Year

Third year actors continue to apply their craft to challenging studies in many styles of plays; they deepen their understanding and application of Meisner technique; singing; tutorials in speech and movement as well as voice over workshops and acting for the camera. Public performance work intensifies with specific productions chosen to challenge the actor’s art within the training program. Actors also, when applicable, audition for Kansas City Repertory productions and are cast, when appropriate, in roles or as understudies. Actors also audition and perform, when appropriate, in other Kansas City professional Equity theatres. In May, the actors are showcased in New York. All students who are considered "in good standing" participate in showcase.

Retention

In addition to being expected to maintain at least a 3.0 grade-point average, all M.F.A. acting candidates will be evaluated by the performance faculty at the end of each semester to determine whether they have shown satisfactory progress to warrant continuation in the program.
Master of Fine Arts in Design and Technology

Student Learning Outcomes

Students graduating from this program will:

- Design - mastering interpretation, collaboration and idea development; developing the graphic tools needed to superlatively communicate design ideas visually.
- Technical Skills - mastering the tools of production, and the processes associated within each design/technology discipline.
- History - mastering research, text analysis and dramatic history.
- Production - mastering the artistic merging of design, history and technical skills through the experiences of numerous and varied productions.
- Entrepreneurship - mastering the business of the profession and career growth.

Program Requirements

This is a three-year program requiring a minimum of 60 credit hours. Students majoring in design and technology may choose to specialize in:

- Design (scenic design, costume design and technology, lighting design, sound design).
- Technical direction.
- Stage management.

Design Emphasis

Those choosing a design emphasis will be prepared to compete for United Scenic Artist Local 829 membership as scenic designers, lighting designers, costume designers or sound designers. They also will be prepared to design in professional theatre centers and in major universities and colleges.

Technology Emphasis

Technical Direction
Candidates specializing in technology will be trained to compete for jobs as technical directors or assistant technical directors and other supervisory technical positions, or other entertainment-business-related positions.

Stage Management
Stage management candidates serve as assistant stage managers the first semester or first year, as stage managers the second year, and serve a residency in the last semester. They also work as production assistants for the Kansas City Repertory Theatre shows. Candidates in stage management are trained to compete for jobs as Actors’ Equity stage managers and take classes on the Actors’ Equity LORT rule book.

General Requirements

The portfolio to be presented for admission should include:

1. Artistic renderings.
2. Drafted materials.
3. Photographs and slides.
4. Resume and references.

MFA candidates are expected to maintain at least a 3.0 grade point average.

Only students who have demonstrated satisfactory progress in required skills and professional discipline during the first year (or sooner at faculty discretion) will be invited by the faculty to continue the program. During the second year, the design and technology students will concentrate on areas of interest, choosing advanced courses and working in the appropriate production areas. Third-year residency allows students to continue to emphasize design or technology coursework while undertaking major design or technology projects with productions in the Department of Theatre, the Kansas City Repertory Theatre or other professional environments. The concluding requirements of the M.F.A. degree for the design and technology candidate will be classroom projects, produced work and final presentations of portfolios. M.F.A. students are subject to the General Graduate Academic Requirements (p. 1189) of the University for graduate study.
Women's, Gender, and Sexuality Studies

(816) 235-1116
wgs@umkc.edu
http://cas.umkc.edu/wgs

Mailing Address
Dr. Brenda Bethman, Director
Women's and Gender Studies Program
University of Missouri-Kansas City
Haag Hall, Room 208
5120 Rockhill Road
Kansas City, MO 64110-2499

Program Description
First established in the 1980s, Women's, Gender and Sexuality Studies (WGSS) at UMKC is one of 650 such programs in the United States. WGSS is both an inter- and multi-disciplinary academic program devoted to the critical analysis of how gender, race, class, ethnicity, and sexuality contribute to the diversity of women's and men's experiences. The program's interdisciplinary nature and cross-cultural academic training broadens students' understanding of gender and the experiences of women and men, girls and boys, in all cultures and societies. By placing gender at the center of scholarly inquiry, we not only examine the assumptions, methods, insights, and claims of the traditional academic curriculum but broaden it through our research interests, publications, and courses to add cutting edge feminist research, scholarship, and activism.

The WGSS program offers an undergraduate minor as well as an internship. WGSS courses are offered by numerous UMKC departments, and a full list of courses scheduled is available every semester from the WGSS office.

A minor in Women's, Gender and Sexuality Studies requires 18 credits. Nine credits must be in upper division courses (that is, 300 and 400) and no more than nine credits may overlap with your major. Reading courses on selected topics may be arranged with individual faculty members.

More information is available at the program website at http://cas.umkc.edu/wgs.

Educational Goals and Student Learning Outcomes
The educational goals for students in the Women's, Gender and Sexuality Studies program are:

• To explore the historical development and contemporary manifestation of gender-based inequalities.
• To generate new knowledge about women's lives and resistances in U.S. and global contexts.
• To advance critical research, thinking and writing skills as integral to professional development and political engagement.
• To foster understandings about how to transform inequalities of race, class, gender, sexuality and nations through direct engagement with communities in service learning.

Specifically, students will have the opportunity to acquire certain knowledge, skills and experience:

Knowledge
Students studying Women's, Gender and Sexuality Studies will acquire knowledge about:

• The multidisciplinary nature and interdisciplinary methods of Women's, Gender and Sexuality Studies scholarship.
• The historical and contemporary cultural, social, political and economic contexts of gender in the United States and globally.
• The interaction of gender with other culturally constructed categories, such as race, age, sexuality, etc., in order to foster a greater understanding of diversity.

Skills
Students studying Women's, Gender and Sexuality Studies will have the skills to:

• Think across disciplines.
• Understand and utilize the theories and methods of the various disciplines that contribute to Women's, Gender and Sexuality Studies.
• Apply their knowledge to a variety of careers in business, nonprofit work and the public sector, as well as be qualified for graduate studies in any social science.
• Be knowledgeable activists for the human rights of all women and men, irrespective of cultural biases and stereotypes.

Experience
Students studying Women's, Gender and Sexuality Studies will be experienced in:
• Academic research and analysis in a variety of academic fields and disciplines.
• Professional and respectful interactions with disagreeing others in public discussions of gender issues (students will become teachers).
• Maintaining a recognition of human diversity and analyzing each human issue from a race, class and gender perspective (at a minimum).

**Undergraduate Degrees:**

**Undergraduate Degrees:**

• Minor in Women's, Gender, and Sexuality Studies (p. 621)
• Interdisciplinary Women's and Gender Studies Course Listing (p. 619)

**Courses**

WGS 201 Introduction To Women's, Gender, and Sexuality Studies Credits: 3
This class provides an introduction to the interdisciplinary field of women’s, gender, and sexuality studies. The focus of this course will be the many ways gender is integral to our understanding of our world and the communities in which we live.

WGS 301 Introduction to Feminist Theory Credits: 3
This course covers a wide variety of feminist theories and theoretical perspectives, primarily since the 1960s, and is devoted to understanding and evaluating this body of work and the insights and possibilities for change that it suggests.

**Prerequisites:** WGS 201.

WGS 314CC Weimar Culture: Gender and Modernity in Central Europe Credits: 3
A cluster course concerned with the culture of Weimar Germany (1919-1933), a period of crucial importance not only for German history but also for European and world history. Examines how film, advertising, theater set design, painting, photography and other media sought to re-imagine gender identities, foster new cultural forms, and transform economic relations during the Roaring Twenties in Germany.

WGS 405 Special Topics In Women's, Gender, and Sexuality Studies Credits: 1-3
Each time this course is offered a different area of Women’s and Gender Studies will be covered. This course may be repeated for credit when the topic changes.

WGS 408 Gender, Health, and Development in Senegal Credits: 3
This course examines women’s economic empowerment, health education initiatives, philanthropy, and social entrepreneurship in West Africa and Senegal in particular. In the main city of Dakar we will visit indigenous and global nonprofits to study their policies and processes. The culture, both urban and rural, will be experienced in order to provide a unique perspective on the Senegalese and their culture.

WGS 460CC CC: Queer in the City: An introduction to Lesbian and Gay Studies Credits: 3
This course introduces queer theory within the context of gender studies and urban studies. We will read, discuss, and react to classic text in queer theory, lesbian and gay studies, and sexuality and space studies. There will be an emphasis on finding “otherness” within everyday spaces, places, texts, and discourses.

WGS 484 Women's, Gender, and Sexuality Studies Internship Credits: 1-4
The Women’s, Gender, and Sexuality Studies Internship Program is an opportunity for undergraduate students to gain on-site experience. Students will receive 1-4 hours of academic credit while learning and working in off- or on-campus placements. Students will engage in the ongoing feminist effort to integrate research with social activism as they apply academic knowledge to their work experience and consider how practical experience informs or alters theory. Internship experiences may take place on or off-campus, such as at the UMKC Women’s Center or a local battered women’s shelter. The Women’s Center Director serves as coordinator for all internship experiences.

**Prerequisites:** WGS 201.

WGS 499 Women's, Gender, and Sexuality Studies: Senior Seminar Credits: 3
This capstone course focuses on research leading to a term paper on a Women’s, Gender, and Sexuality Studies Topic.
# Interdisciplinary Women's, Gender, and Sexuality Studies Course Listing

## Anchor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ANCH 304</td>
<td>Telling Stories: History, Memory, and American Life</td>
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## Art and Art History

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<tbody>
<tr>
<td>ART-HIST 315</td>
<td>Arts Of African and New World Cultures</td>
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## Black Studies

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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>BLKS 321/5521</td>
<td>The Black Family and Male-Female Relationships</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 338/5538</td>
<td>Women’s Literature in Africa and the African Diaspora</td>
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## Classics

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<tbody>
<tr>
<td>CLASSICS 300CB</td>
<td>Women In The Ancient World</td>
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## Communication Studies

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<tbody>
<tr>
<td>COMM-ST 320</td>
<td>Mass Media, Culture And Society</td>
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## Criminal Justice and Criminology

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<tbody>
<tr>
<td>CJC 430</td>
<td>Women, Crime And Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CJC 431</td>
<td>Hate &amp; Bias Crimes</td>
<td>3</td>
</tr>
<tr>
<td>CJC 488</td>
<td>Mentoring Juvenile Justice System-Involved Youth</td>
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## English Language and Literature

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<tr>
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<th>Title</th>
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<tbody>
<tr>
<td>ENGLISH 123</td>
<td>True Lives: Autobiographical Arts and Acts</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 141</td>
<td>Women and Literary Culture/The Heroine in Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 242</td>
<td>Women Writing/Women Reading</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 342WI</td>
<td>Women And Rhetoric</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 344WI</td>
<td>Women &amp; Literary Culture: Genre Focus</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 345WI</td>
<td>Women And Literary Culture: Historical Focus</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 350</td>
<td>The 18th Century Novel</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 356</td>
<td>Studies in Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 410</td>
<td>Black Women Writers</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 426</td>
<td>The Victorian Period</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 433</td>
<td>Histories Of Writing, Reading, And Publishing</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 441</td>
<td>Girls And Print Culture</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 450</td>
<td>Special Readings</td>
<td>1-3</td>
</tr>
<tr>
<td>ENGLISH 455</td>
<td>Studies In The Novel 1740-1900</td>
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## Environmental Studies

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<tbody>
<tr>
<td>ENV-STDY 334</td>
<td>Gender and the Environment</td>
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</table>
# Interdisciplinary Women’s, Gender, and Sexuality Studies Course Listing

## Health Sciences

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<td>HLSC 325</td>
<td>Human Sexuality</td>
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## History

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<tbody>
<tr>
<td>HISTORY 300G</td>
<td>Special Studies</td>
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<tr>
<td>HISTORY 300H</td>
<td>Special Studies</td>
<td>1-3</td>
</tr>
<tr>
<td>HISTORY 354R</td>
<td>Women in Modern America</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 368</td>
<td>Children and Youth in American History</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 369</td>
<td>Women and Work in Early America</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 412A</td>
<td>Medieval Women &amp; Children</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 428A</td>
<td>History Of The Body</td>
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## Latinx and Latin American Studies

<table>
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<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>LLS 201</td>
<td>Introduction to Latina/o Studies</td>
<td>3</td>
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## Law

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<tbody>
<tr>
<td>LAW 8714C</td>
<td>Gender and Justice: Selected Topics</td>
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## Psychology

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<tbody>
<tr>
<td>PSYCH 305</td>
<td>Psychology Of Women</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 5543</td>
<td>Adult Development And Aging</td>
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## Sociology

<table>
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<tbody>
<tr>
<td>SOCIOL 101</td>
<td>Sociology: An Introduction</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 306</td>
<td>Culture, Emotion, and Identity</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 310R</td>
<td>Families And The Life Course</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 318</td>
<td>Sociology Of The Aging Woman</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 351</td>
<td>Gender, Work And Social Change</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 411</td>
<td>Sociology Of Human Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 418</td>
<td>Feminist Theories</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 440R</td>
<td>Sociology Of Medicine</td>
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## Women’s, Gender, and Sexuality Studies

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>WGS 201</td>
<td>Introduction To Women’s, Gender, and Sexuality Studies</td>
<td>3</td>
</tr>
<tr>
<td>WGS 301</td>
<td>Introduction to Feminist Theory</td>
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</tr>
<tr>
<td>WGS 314CC</td>
<td>Weimar Culture: Gender and Modernity in Central Europe</td>
<td>3</td>
</tr>
<tr>
<td>WGS 405</td>
<td>Special Topics In Women’s, Gender, and Sexuality Studies</td>
<td>1-3</td>
</tr>
<tr>
<td>WGS 408</td>
<td>Gender, Health, and Development in Senegal</td>
<td>3</td>
</tr>
<tr>
<td>WGS 460CC</td>
<td>CC: Queer in the City: An introduction to Lesbian and Gay Studies</td>
<td>3</td>
</tr>
<tr>
<td>WGS 484</td>
<td>Women’s, Gender, and Sexuality Studies Internship</td>
<td>1-4</td>
</tr>
<tr>
<td>WGS 499</td>
<td>Women’s, Gender, and Sexuality Studies: Senior Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>
Minor in Women's, Gender, and Sexuality Studies

The minor in WGSS offers an excellent inter- and multi-disciplinary curriculum that examines women, girls and gender throughout history and across cultures. WGSS courses teach critical thinking through an examination of the historical and contemporary problems facing women locally, nationally and globally. Students expand their understanding of gender difference, cultural diversity and social change as they complete an 18-hour program of study from among a wide variety of classes in numerous fields and disciplines. WGSS courses in history, sociology, psychology, criminal justice, English, religion, political science, law and other areas enable students to pursue a specialized focus which enhances their major in the humanities, social sciences or natural sciences. The minor also provides sufficient flexibility to allow for the creation of a course of study especially suited to the individual interests of students.

Student Learning Outcomes

Students graduating from this program will:

- explore the historical development and contemporary manifestation of gender-based inequalities.
- generate new knowledge about women’s lives and resistances in U.S. and global contexts.
- advance critical research, thinking and writing skills as integral to professional development and political engagement.
- foster understandings about how to transform inequalities of race, class, gender, sexuality and nations through direct engagement with communities in service learning.

Program Requirements

A minor in Women’s, Gender, and Sexuality Studies requires 18 credits. Nine credits must be in upper division courses (that is, 300 and 400) and no more than nine credits may overlap with your major. Reading courses on selected topics may be arranged with individual faculty members.

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<tbody>
<tr>
<td></td>
<td>Required Courses</td>
<td></td>
</tr>
<tr>
<td>WGS 201</td>
<td>Introduction To Women’s, Gender, and Sexuality Studies</td>
<td>3</td>
</tr>
<tr>
<td>WGS 301</td>
<td>Introduction to Feminist Theory</td>
<td>3</td>
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<tr>
<td></td>
<td>Additional Courses</td>
<td></td>
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<tr>
<td></td>
<td>Approved social sciences and humanities courses</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td>18</td>
</tr>
</tbody>
</table>

1 The remaining 12 hours must include a minimum of 3 hours of social sciences credit and 3 hours of humanities credit and be chosen from an approved list of courses. No more than three credits from 100 level courses can count towards the minor.

Students are encouraged to take WGS 484: Women’s & Gender Studies Internship.
Student Services

- Advising System (p. 623)
- Applied Language Institute (p. 625)
- Study Abroad (p. 630)
- General Undergraduate Degree Requirements & Information (p. 631)
- Major and Minor Requirements (p. 633)
- Degree Requirements (p. 635)
- Credit by Examinations (p. 638)
Advising System
Scofield Hall, Room 9
711 E. 51st Street
(816) 235-1148
http://cas.umkc.edu/advising

Our Vision
Guiding, supporting, and inspiring students to achieve academic excellence

Our Mission
The mission of the UMKC College of Arts and Sciences (CAS) Student Services Office is to guide students toward academic success in higher education.

Advisors within the College of Arts & Sciences (CAS) are directly responsible for advising current and prospective Arts and Sciences undergraduate students on general education requirements and how to apply them to their degree program. Advisors assist students with selecting majors, monitoring academic progression, and fulfilling graduation requirements while educating them on campus resources, university policies and procedures, and options for graduate or professional schools. Advisors are role models who teach students how to navigate through the educational journey, encouraging students to actively engage themselves in their education. The CAS Student Services Office creates an atmosphere promoting autonomous life-long learning where students accept responsibility and ownership for their personal academic progression, degree completion, and goal achievement.

Advisors within CAS are committed to serve as a bridge among students, faculty, and staff. The CAS Student Services Office provides training and development for professional and faculty advisors to ensure they are effectively meeting the needs of students. Advisors support CAS's commitment to educate students in the arts and sciences, providing them with a breadth of knowledge valuable to the intellectual and social community. Advising allows for the promotion of understanding of these general education goals which play a key role in the development of students becoming productive contributors to society. Due to the unique relationship between advisors and students, advisors play an integral role in recruitment, retention, and student success for CAS and UMKC as a whole.

As students progress through their higher education journey at UMKC, advisors in CAS Student Services foster and faculty advisors in CAS departments encourage students toward achieving academic success.

Faculty and Staff Advisors
- Assist students in choosing majors and planning their academic programs.
- Inform students about the general education requirements of CAS and relate them to their major requirements.
- Advise students on class selection and registration.
- Offer advice on educational and career goal setting.
- Assist students in locating support services on campus.
- Review degree audits and perform graduation status checks.
- Connect students with faculty on campus.
- Review academic policies and procedures with students.
- Help students with other related issues and problems of an academic nature.

Academic advising responsibilities are distributed among faculty advisors and professional advisors in CAS in the following manner:
- Undergraduate and graduate faculty advisors in each department or program:
  - Advise students in their major field of study.
  - Advise students about departmental student organizations as well as internship or undergraduate research opportunities within the department.
  - Advise students concerning graduate study requirements.
- Professional and graduate-student advisors in the CAS Student Services Office:
  - Advise students for general education and overall degree requirements.
  - Advise bachelor of liberal arts students.
  - Advise students who have not yet declared a major or are on probation.
  - Help all undergraduates with special requests and problems.
  - Evaluate transfer courses.
  - Review degree audits prior to graduation on all bachelor’s degree-seeking students.
• Communicate with individual students and with the Registration and Records Office to confirm that all degree requirements will be met in the graduating semester.

While academic advising is not required for all students, it is recommended that students seek academic advising each semester to avoid problems later. Certain undergraduate majors do require academic advising each semester. Students required to secure an advisor’s approval and release before enrolling include:

• All freshmen.
• All sophomores with 45 or fewer credit hours.
• Probationary students.
• Students requesting overloads or credit/no credit option.
• Undergraduate majors in art, chemistry, physics and theatre.
• Graduate majors in chemistry, English, geosciences, sociology, and theatre.

When the next semester’s course schedule is published in Pathway, students should contact their academic advisor. Students who promptly seek academic advising have a better chance of securing their first choice of courses and times. While the CAS Student Services Office sees students on an appointment as well as walk-in basis, most faculty advisors require an appointment.

Faculty advisors in each department assist students in planning their academic programs and inform them about the degree requirements of the programs. Graduate students required to secure an advisor’s approval before enrolling include majors in chemistry, English, geosciences, sociology and theatre.
Applied Language Institute (ALI)

5301 Rockhill Road
816- 235-1233
816-235-5437 (fax)
http://www.umkc.edu/ali

Program Description

The Applied Language Institute (ALI) is a joint program of UMKC and The Metropolitan Community College (MCC). The Institute's mission is to offer comprehensive English-as-a-Second-Language (ESL) instruction for academic, personal or professional purposes as well as language acquisition and cross-cultural classes and seminars. In addition, the Institute aims to provide students with an understanding of U.S. culture and values, particularly within the educational environment, while acknowledging and valuing students' own cultures and languages.

Our intensive ESL program offers up to 27 hours of instruction per week in Listening/Speaking, Reading/Vocabulary, Grammar, Writing, U.S. Culture, and Test of English as a Foreign Language (TOEFL) Preparation. Classes are small and offered at all levels of instruction from beginning through advanced. In addition, students have access to a multimedia language resource center. Our teaching and administrative staff is friendly, supportive, and understanding of the needs of international students in the United States.

Regular programs run from late August through December (Fall), January through May (Spring), and June and July (Summer). Additionally, the ALI offers a variety of specialized short-term and group programs that include language and cultural/academic education.

English Proficiency Requirement

Proficiency in English is essential to success in academic programs at UMKC. The ALI's role at UMKC is to ensure that all non-native English speakers either already have, or have an opportunity to acquire these necessary skills. Prior to enrollment, newly-admitted ALI students, and international academically-admitted students who have a TOEFL score below 100, or an IELTS score below 6.5 are required to take the English Evaluation Examination administered by the ALI. Based on results of the English Evaluation Examination, students must enroll in and successfully complete the ALI coursework indicated as necessary. For academic students, coursework is determined by the ALI in consultation with the student's academic unit.

The only international students exempted from this admissions policy are:

- Native English speakers from English-speaking countries such as Canada, England, the Republic of Ireland, Australia and New Zealand.
- Non-native English speakers who hold degrees or diplomas from post-secondary institutions in English-speaking countries (such as the United States, Canada, England, the Republic of Ireland, Australia and New Zealand), provided that they have spent a minimum of two years of successful full-time study and English was the medium of instruction.

Grades and GPA

All ALI coursework is graded according to UMKC policies and is used in the calculation of a student’s grade point average (GPA).

- Academic Probation and Ineligibility
  - Academic status is assessed at the end of every term, whether the student is full time or part time for that term.
  - A summer session is considered the same as a semester for the purpose of determining academic actions.
  - Students are notified of academic actions via their UMKC e-mail address.
  - Students will be placed on academic probation if their GPA falls below 2.0.
  - Once students are placed on academic probation, they have two semesters to raise their cumulative GPA to the level required (2.0 for undergraduate students, 3.0 for graduate students).
  - During those two semesters, students term GPA must be at least 2.0 for undergraduate students and 3.0 for graduate students to be allowed to continue. (Note: some academic units may have higher GPA requirements.)
  - Students who fail to meet the criteria as stated above will be ineligible to re-enroll without permission of the College of Arts and Sciences Academic Standards Committee
- Credit/Non-Credit
  - ALI students registered as pass/fail, who fail two or more courses during an academic term, will be placed on academic probation.
  - Students who are placed on academic probation must not fail one or more courses per semester during the following two academic semesters.
  - Students who fail to meet the criteria as stated above will be ineligible to re-enroll without permission of the College of Arts and Sciences Academic Standards Committee.

Faculty

Tammy Adams; lecturer; B.A. (University of the Pacific, CA); M.A. (University of Missouri-Kansas City)
Courses

ENGLISH 100B  Basic Speaking and Listening For Non-Native Speakers  Credits: 1-3
The study and practice of speaking and listening for survival-level social functions in English. Frequent exercises focus on the production of isolated words and phrases in areas of need, and on the development of survival level oral/aural skills for beginning ESL students. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 100C  Basic Reading for Non-Native Speakers  Credits: 1-3
The study and practice of survival-level reading English vocabulary in context. Frequent exercises focus on basic reading comprehension related to familiar topics and situations, and the introduction of dictionary skills. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 100D  Basic Writing For Non-Native Speakers  Credits: 1-3
The study and practice of survival level writing skills including spelling, capitalization and some punctuation. Introduction of basic sentence structures and completion of simple standard forms of written English. Frequent exercises focus on survival level writing such as words and basic phrases in the present tense. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 100G  Basic Grammar For Non-Native Speakers  Credits: 1-3
The study and practice of survival level sentence structures and words. Frequent exercises focus on basic level sentences, questions, directions, and descriptions in the present tense that relate to students’ immediate surroundings and some life skills areas. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 100S  Special Topics In English As A Second Language  Credits: 1-6
A course designed to address the specific needs of an individual student or group of students studying English as a Second Language. In addition to targeting English skills, the course may address topics or skills which are not covered in the standard Academic English curriculum of the Applied Language Institute. This course will accommodate individual students or groups of students studying at the Institute for periods of time other than the standard semester length. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 100T  TOEFL Preparation  Credits: 1-3
This course will prepare students to take the TOEFL (Test of English as a Foreign Language), in either the paper-based (PBT) or internet-based (iBT) form, and/or to improve their scores from previous attempts. Exercises focus on developing the skills and strategies necessary for navigating TOEFL questions while continuing to develop the general English language skills that support success on the TOEFL. The course will provide students with a personal awareness of strengths and weaknesses so they may focus their test preparation work in and outside of class. This course carries no credit toward graduation in the College of Arts and Sciences.

**ENGLISH 101B  Academic Speaking & Listening For Non-Native Speakers I  Credits: 1-3**
The study and practice of speaking and listening for basic social functions in English. Exercises include the practice of basic descriptions and the development of oral/aural skills for beginning ESL students. This course carries no credit toward graduation in the College of Arts and Sciences.

**ENGLISH 101C  Academic Reading & Vocabulary For Non-Native Speakers I  Credits: 1-3**
The study and practice of reading with basic English vocabulary in context. Exercises focus on reading comprehension, identifying the topics of short readings, and the introduction of basic dictionary skills. This course carries no credit toward graduation in the College of Arts and Sciences.

**ENGLISH 101D  Academic Writing For Non-Native Speakers I  Credits: 1-3**
The study and practice of basic writing skills including handwriting, spelling, capitalization and punctuation. Frequent short exercises emphasize basic sentence structure, biographical description, and completion of standard forms. This course carries no credit toward graduation in the College of Arts and Sciences.

**ENGLISH 101G  Academic Grammar For Non-Native Speakers I  Credits: 1-3**
The study and practical application of basic sentence structure and word parts. Frequent exercises emphasize use and understanding of simple sentences, questions, directions, and descriptions in the present and past tenses. This course carries no credit toward graduation in the College of Arts and Sciences.

**ENGLISH 102B  Academic Speaking & Listening For Non-Native Speakers II  Credits: 1-3**
The study and practice of speech in environments such as the classroom, work, and simple social occasions. Exercises focus on student's ability to distinguish sounds and to produce them correctly in the context of a sentence and to listen for specific information. This course carries no credit toward graduation in the College of Arts and Sciences.

**ENGLISH 102C  Academic Reading & Vocabulary For Non-Native Speakers II  Credits: 1-3**
The study and practice of reading narrative and expository texts and standard forms. Exercises focus on the development of vocabulary and introduction of reading techniques such as identification of topics and main ideas, skimming, scanning, prediction, and inference. This course carries no credit toward graduation in the College of Arts and Science.

**ENGLISH 102D  Academic Writing For Non-Native Speakers II  Credits: 1-3**
The study and practice of techniques for writing short paragraphs in English. Frequent exercises emphasize various forms of paragraph organization and the improvement of punctuation and mechanical skills in writing. This course carries no credit toward graduation in the College of Arts and Sciences.

**ENGLISH 102G  Academic Grammar For Non-Native Speakers II  Credits: 1-3**
The study and practical application of basic sentence structures, including future and irregular past tense constructions. Frequent exercises emphasize use and understanding of comparatives, questions, and compound nouns and verbs. This course carried no credit toward graduation in the College of Arts and Sciences.

**ENGLISH 103B  Academic Speaking & Listening For Non-Native Speakers III  Credits: 1-3**
The study and practice of listening for and producing speech in the past, present and future tenses. Exercises introduce note-taking techniques and focus on the ability to hear and express abstract ideas. This course carries no credit toward graduation in the College of Arts and Sciences.

**ENGLISH 103C  Academic Reading & Vocabulary For Non-Native Speakers III  Credits: 1-3**
The study and practice of longer reading passages of various rhetorical styles. Exercises focus on improvement of reading speed and the development of vocabulary and comprehension through complex inferences. This course carries no credit toward graduation in the College of Arts and Sciences.

**ENGLISH 103D  Academic Writing For Non-Native Speakers III  Credits: 1-3**
The study and practice of writing multi-paragraph academic essays. Frequent exercises emphasize point-of-view, process writing, and a variety of rhetorical styles. This course carries no credit toward graduation in the College of Arts and Sciences.

**ENGLISH 103G  Academic Grammar For Non-Native Speakers III  Credits: 1-3**
The study and practical application of complex sentence structures, including perfect and perfect progressive tenses. Frequent exercises emphasize use and understanding of passive voice, gerunds and infinitives, articles, conditionals, and modals. The course carries no credit toward graduation in the College of Arts and Sciences.

**ENGLISH 104B  Academic Speaking & Listening For Non-Native Speakers IV  Credits: 1-3**
The study and practice of standard English, particularly in the college classroom. Exercises include training in academic lecture comprehension and note-taking as well as formal (classroom presentation) and informal (conversation) English speaking. This course carries no credit toward graduation in the College of Arts and Sciences.
ENGLISH 104C Advanced Academic English Reading For Non-Native Speakers IV Credits: 1-3
This course focuses on preparing students to deal effectively with sophisticated academic reading materials by guiding them in the development of a conscious and reflective approach toward reading. It emphasizes advanced reading skills of interpretation, inference, critical analysis, evaluation and application. There will be frequent exercises addressing the acquisition and practice of study skills and collaborative academic work.
Prerequisites: Completion of ENGLISH 103C with a grade of B or better.

ENGLISH 104D Academic Writing For Non-Native Speakers IV Credits: 1-3
The study and practice of rhetorical principles in standard English prose. Frequent writing exercises emphasize critical thinking and research skills as well as fluency and accuracy in academic writing. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 104G Advanced Academic English Grammar For Non-Native Speakers IV Credits: 1-3
This course focuses on the analytical understanding and application of English grammar. Students will be expected to observe usage patterns of the English language in a combination of both normative and prescriptive grammars appropriate for academic English application. There will be frequent exercises emphasizing mastery of complex grammar structures including all verb tenses, dependent clauses, modals, and unreal conditionals, and of the relationship between ideas and the construction of sentences in academic discourse.
Prerequisites: Completion of ENGLISH 103G with a grade of B or better.

ENGLISH 105A Advanced Academic English (Multiskills) For Non-Native Speakers V Credits: 1-3
The comprehensive study and practice of standard English skills for advanced students of English as a second language. level readings focusing on current issues serve as the basis for frequent writing exercises and for classroom discussions and presentations. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 105B Advance Speaking and Listening Topics for Non-Native Speakers Credits: 1-3
This course focuses on developing high-level fluency in English listening and speaking through critical awareness of social language use. Students will work toward greater speaking and listening fluency and adaptability through the practice of skills involving purpose, audience, speech norms and context.

ENGLISH 105C Advanced Reading Topics for Non-Native Speakers Credits: 1-3
In this course, advanced ESL readers will develop the core critical reading skills required for success in academics by examining and applying those skills in the context of authentic college-level readings representing a wide variety of genres and modes. Readings will include extensive college textbook passages, newspaper articles, opinion sections, academic essays and interpretive reading of literature.

ENGLISH 105D Advanced Writing Topics for Non-Native Speakers Credits: 1-3
This course engages advanced ESL and EFL writers to develop greater dexterity of expression in composition. In addition to reinforcing core rhetorical skills, grammar and writing mechanics, students will explore new rhetorical styles such as personal responses, autobiographical essays, and writing about literature. Extensive reading complements the writing discussion and practice with pieces including personal and academic essays, narrative, magazine journalism and fiction.

ENGLISH 105G Advanced Grammar Topics for Non-Native Speakers Credits: 1-3
In this course, students will pursue an in-depth comprehension of English grammar, with a strong focus on increasing fluency in the English language through a critical analysis of connotation and pragmatics and their role in language fluency. Contextual readings, film and native conversation passages will complement the grammar discussions and practice, engaging students to move beyond a literal understanding based on syntax and semantics to a more contextual awareness of English form and function.

ENGLISH 250 Introduction To Language Acquisition And Diversity Credits: 3
Investigation of the basic principles of first and second language acquisition. Topics addressed include language competency, socio-cultural factors in language, dialects, acquisitional principles, and language diversity. Students will take part in monitored classroom observations in public schools, and will critically analyze how the topics addressed in class apply to real life and to teaching situations.

A&S 210 Cross-Cultural Interaction: Experience & Understanding Credits: 3
This course focuses on the social and cultural context of interactional patterns. U.S. and international students are paired in academic activities to encourage mutual understanding and self-awareness. They will draw on a variety of resources and learning modalities to examine aspects of their own and one another’s societies, cultures, religions, and family relations. Making use of intercultural theories, students will reflect upon and explore cultural myths and stereotypes and develop a general understanding of cultural similarities and differences.

A&S 310 Cross-Cultural Interaction II: Social Relations Credits: 3
This course will match international students with U.S. students to prepare them to interact more effectively in multilingual and/or intercultural settings. Students learn through readings on cultural theory and cultural relations, in-class small group activities, discussions and lectures, how issues of identity, such as age, sexual orientation, and ethnicity; impact cross-cultural interaction. Papers written for this course will help students integrate theory with previous experience, leading to an understanding of oppression in cross-cultural interaction.
Prerequisites: A&S 210.

DISC 100 Discourse I: Reasoning and Values (Speech and Writing) Credits: 3
“Discourse” refers to the language, images, styles, genres, behaviors and other forms of communication used by specific social and professional groups. The techniques of discourse analysis and language awareness taught in this course will enable you to position yourself socially and
professionally, helping you understand the discourse conventions, reasoning, and "commonsense" assumptions that create and define academic, political, professional, and other discourse formations and communities. Students will produce, perform, and analyze college-level, oral and written texts; and they will learn how written and oral performances function together in specific discourse communities.

Co-requisites: Anchor I.

### DISC 200  Discourse II: Culture and Diversity (Writing and Speech)  Credits: 3
Students will produce, perform, and analyze college-level, oral and written texts that are based on sustained academic research. Students will continue to develop their understanding of discourse analysis and language awareness in the context of a range of discursive forms. Students will interpret and synthesize college-level scholarship that addresses how diverse discourse communities define, evaluate, and transform individual, institutional, and cultural identities. This course is associated with the anchor course Culture and Diversity and prepares students for DISC 300.

Prerequisites: DISC 100.

Co-requisites: Anchor II.

### DISC 300  Discourse III: Civic and Community Engagement (Speech and Writing)  Credits: 3
Students will put the knowledge and skills learned in Discourse I and II into practical use by engaging in a service-learning project that is interdisciplinary and intercultural. Students will use strategies of critical discourse analysis and critical language awareness to target the appropriate audience/recipients for their service project, to develop innovative and rhetorically effective texts, and to reflect on their project’s purpose, methods, and consequences. This course is taught in close connection with the anchor course Civic and Community Engagement.

Prerequisites: DISC 200.

Co-requisites: Anchor III.

### MGT 301A  Effective Business Communication for Non-Native Speakers  Credits: 3
Students will learn the strategic nature of business communication with a focus on building English language skills and understanding U.S. business terminology and culture. By the end of the course, students should be able to analyze business situations, prepare messages that fulfill the intended purpose of their communication, and meet the needs and expectations of business audiences. Students will develop the tools to deliver effective, professional written and oral communications, in addition to cultivating their English language abilities in the business environment.

Prerequisites: DISC 200, RooWriter.
Study Abroad Programs

International Academic Programs
Student Success Center, Room 120
(816) 235-5759
http://www.umkc.edu/international

In collaboration with International Academic Programs, the College of Arts and Sciences helps make available to its students a variety of study abroad programs that provide an exciting way to add a global dimension to their UMKC education through exploring and sharing the cultures of other countries.

Study abroad programs are available for a summer, a semester or an academic year. Students can earn credit towards their degree, and with careful planning, they should lose no time toward graduation. Study abroad is affordable since financial aid and scholarships are applicable to many programs, and other grants and scholarships are available specifically for study abroad.

The exchange university consortium, Mid-American Universities International, InterFuture, foreign exchanges offered through the Department of Foreign Languages and Literatures, and the Missouri-London program are among the many program choices available. Among the possible destinations are:

- Argentina
- Australia
- Austria
- Belgium
- Chile
- Costa Rica
- Czech Republic
- Denmark
- England
- Finland
- France
- Germany
- Greece
- Iceland
- Ireland
- Italy
- Korea
- Lithuania
- Malta
- Mexico
- Netherlands
- New Zealand
- Norway
- Portugal
- Scotland
- Slovenia
- South Africa
- Spain
- Sweden
- Switzerland

For more information regarding study abroad and related scholarships, please visit http://www.umkc.edu/international. Additionally, the UMKC Study Abroad Coordinator is available at (816) 235-5790.
**General Undergraduate Degree Requirements & Information**

**Registration Approvals**

In addition to the information below, see the earlier College of Arts and Sciences (CAS) section entitled Advising System.

All new students and freshmen are required to secure an advisor’s approval to register for classes. In addition, undergraduate majors in studio art, chemistry, physics and theatre, and graduate students in chemistry, English, geosciences, sociology and theatre must secure an advisor’s approval to register.

Any student on academic probation, requesting an overload, or requesting the credit/no credit option, must secure an advisor’s approval before completing registration.

Students must have permission of the instructor or faculty advisor before they are allowed to register in Directed Field Experience, Directed Readings, Individual Research or any other courses specified by a department.

All students in CAS are also subject to any special signatures required by other academic units at UMKC.

**Repeated Courses**

If a course is repeated at one of the four UM campuses, the hours and grade points of both the original and repeated courses are used in computing the grade-point average. Only the earned hours from the last repeated enrollment will apply toward degree requirements or total hours required for graduation.

**Hour and GPA Requirement**

A minimum of 120 hours is required for graduation. Of those hours, 36 must be at the 300-400 level. A minimum cumulative grade-point average of 2.0 is required as well as a 2.0 in the major. (Some majors have additional GPA requirements. Students should consult the appropriate section of this catalog for their major.)

**Professional School Credit**

A maximum of 30 acceptable semester hours (2.0 GPA or better) of study in professional schools may be applied toward the bachelor’s degree. Acceptable professional schools for this purpose are law and medicine. This credit is elective credit and does not satisfy any specific degree requirement.

**Writing Intensive Requirement**

Writing Intensive courses, designated with WI, PW, or LW following the course number, are intended to help students learn to express themselves formally and coherently in discursive prose. Writing in this connection is to be regarded not as a corpus of art or information to which students should be exposed, but as a crucial skill, the teaching of which is among the primary missions of CAS. It is assumed that extended and intensive writing can be equated with contemplation and concentration on the subject matter; students learn by writing in any field.

Each Writing Intensive course includes several writing assignments and these assignments form an integral part of students’ efforts to progress in the course. A review and revision cycle is used with systematic feedback. The students’ writing might address philosophical concerns, methods, or specific topics, but their work is always based on exposure to published expository writing. While the exercises may take different forms, they may include:

1. Prewriting; e.g., outlines, journals, free-writing exercises and organizational notes.
2. Submission of preliminary drafts for oral and written responses by the instructor (peer response also might be incorporated).
3. Revision of content, organization, mechanics and style.

Students will prepare a number of different assignments of varying lengths and intent. An extended essay or term paper is expected in all Writing Intensive classes. Examinations may incorporate essay questions.

Students enrolling in Writing Intensive courses must have completed the RooWriter Assessment, which must be taken after successful completion of Discourse II or equivalent.

**RooWriter Assessment**

Candidates for all baccalaureate degrees must take the UMKC RooWriter writing assessment before they have completed 90 credit hours. Students may take the RooWriter at any time while enrolled at UMKC as a personal diagnostic, but it will only satisfy the undergraduate graduation requirement after a student has completed Discourse II (or equivalent).
Certain colleges, schools, departments, majors, Writing Intensive courses, etc. may also require the RooWriter to be taken multiple times, and some might further require a certain minimal level of achievement be attained for advancement. The RooWriter supports and is supported by the university-wide General Education Core requirements.

The RooWriter is offered online. Students should visit the RooWriter website for contact information, writing improvement resources, and other general information.

**Graduation Procedure**

After completion of 90 credit hours, students should file an "Application for Graduation" form in the CAS Student Services Office, Scofield 9. After the application is filed, CAS Student Services will review the degree audit and notify students of their status towards degree completion through UMKC Connect. Students will be sent a "Flag" or "Kudo" in UMKC Connect that indicates:

- Any remaining general education core and CAS degree requirements.
- Any deficiencies for the major/minor. Students are referred to their faculty advisor for any questions pertaining to major or minor portions of the degree audit.
- Remaining minimum hours, junior/senior level hours, residence requirements, the minimum major and minor hours, and grade-point average.

If students have not already met with the faculty advisor for their program to review the major/minor portions of the degree audit, then they are encouraged to do as soon as the application for graduation is submitted.

There are several other important components of the graduation process that the student is solely responsible for completing:

- All students are required to take the ETS-Proficiency Profile (EPP), administered by the Assessment Office.
- Students with majors must complete the Major Field Exam, if it is required for their program.
- Students should review their degree audit every semester to make sure they are still making progress towards graduating during the semester for which they have applied.
- Students are responsible for making sure their address and telephone numbers are correct in the student information system.
- Students must check their UMKC e-mail account regularly for important and relevant graduation and other information.
- Any incomplete grade on a student's transcript must be completed and recorded in the Registrar's Office by the end of the semester in which he/she is graduating.
- Any missing transcripts must be received by the Office of Admissions by the end of the semester in which a student is graduating.

**Reapplying for Graduation**

If a student does not graduate in the semester for which he/she has applied, he/she must reapply for graduation in the CAS Student Services Office. CAS cannot extend a student's application to the next semester without written notification from the student.

**Exceptions**

Exceptions to academic regulations must be approved by the Academic Standards Committee of CAS. To seek exceptions, students must file a "Petition for Exception" form in the CAS Student Services Office, 9 Scofield Hall.
Major and Minor Requirements

Students pursuing the bachelor of arts and bachelor of science degrees must complete a major. Students pursuing the bachelor of liberal arts degree must complete a minor. The College of Arts and Sciences (CAS) strongly encourages students to consult faculty advisors and the UMKC Career Services Office counselors for assistance in choosing suitable academic and career goals. To select a major or minor, students must file a "Declaration of Major" form in the CAS Student Services Office, 9 Scofield Hall. For specific major or minor requirements, see the program requirements described in the appropriate academic departmental section of the catalog.

Degree Program Major

The undergraduate degree-seeking student in CAS must fulfill the requirements for a degree program (major) as specified in the appropriate part of this catalog. The minimum is 26 semester hours.

A minimum of 12 semester hours in the degree program (major) must be earned in the major department at UMKC. A minimum of a C average in the major is required.

CAS encourages students to seek advising early in their academic careers regarding choice of a major. Students must file a formal "Declaration of Major" form in the CAS Student Services Office.

Multiple Majors

See Multiple Major & Double Degree Policy (p. 2342) under Undergraduate Regulations and Information.

Combined and Double Degree Programs

For information on Double Degree, see Multiple Major & Double Degree Policy (p. 2342) under Undergraduate Regulations and Information.

In coordination with several of the professional schools, CAS students may earn combined degrees. Combined degree programs are offered in law and medicine. In the combined degree program, 30 credit hours in the professional schools may count toward the fulfillment of the baccalaureate degree. All degree requirements of the College must be fulfilled. The professional hours are generally considered upper-level elective (blanket) credit. In this manner, the two degrees are earned concurrently and the student's program is accelerated considerably. Students are advised to check with the advising offices of the appropriate schools before making their plans.

Minor Program

An academic minor in CAS is required for the bachelor of liberal arts program, but is optional for the bachelor of arts and bachelor of science programs, and must be declared no later than the beginning of the student's senior year.

A minimum of 18 hours is required in a minor area. At least nine of those hours must be upper-division courses. The courses and total number of hours are determined by the CAS department or interdisciplinary program granting the minor. A minimum of nine hours for the minor must be earned at UMKC.

A student interested in a minor should consult a faculty advisor. Minors offered in CAS include the following: anthropology; art history; astronomy; studio art; bioethics and medical humanities; black studies; chemistry; classical and ancient studies; communication studies; criminal justice and criminology; economics; English creative writing; English language and literature; English manuscript, print culture, and editing; English writing; environmental studies; family studies; film studies; French; geography; geology; German; German studies; gerontology; history; healing and the humanities; mathematics; philosophy; physics; political science; sociology; Spanish; sustainability; theater; urban studies; and women's, gender, and sexuality studies.

Exceptions

Exceptions to CAS policies must be approved by the Academic Standards Committee of CAS. To seek exceptions, students must file a "Petition for Exception" form in the CAS Student Services Office, 9 Scofield Hall.
Pre-Professional Programs

Prerequisites for advanced professional programs in law and the health professions can be satisfied as a part of any degree program in the College of Arts and Sciences.

Pre-Medicine, Pre-Dentistry and Pre-Health Advising

Please see the additional catalog section on Pre-Medicine/Pre-Health for more detailed information on pre-medicine, pre-dentistry and pre-health.

Program Coordinator:
Scofield Hall (http://www.umkc.edu/virtualtour/scofield.asp), Room 9
711 East 51st Street
(816) 235-6085

Some of the most popular pre-professional programs in health care include:

• Pre-Dental Hygiene
• Pre-Dentistry
• Pre-Medicine (allopathic and osteopathic)
• Pre-Occupational Therapy
• Pre-Optometry
• Pre-Pharmacy
• Pre-Physical Therapy
• Pre-Respiratory Therapy
• Pre-Veterinary Medicine

Pre-Law Advising

Specific details on the College's pre-law program can be found in the Pre-Law section of this catalog.

Program Coordinator:
Scofield Hall (http://www.umkc.edu/virtualtour/scofield.asp), Room 9
711 East 51st Street
(816) 235-5874
Degree Requirements

Requirements for Bachelor's Degrees

The College of Arts and Sciences values the distinctive benefits of a traditional liberal arts education for students and society and therefore adds these degree requirements to work in tandem with the UMKC General Education Core (p. 2250).

The College of Arts and Sciences offers three degree options: the bachelor of arts, the bachelor of liberal arts, and the bachelor of science.

General Differences between B.A., B.L.A and B.S. General Requirements

The CAS degree requirements for the bachelor of arts and bachelor of liberal arts degrees are the same, with two exceptions:

- The bachelor of liberal arts requires a minor, not a major.
- The bachelor of liberal arts does not require a foreign language

The CAS degree requirements for the bachelor of arts, bachelor of liberal arts, and bachelor of science degrees are the same, with two exceptions:

- The bachelor of science degree requires a minimum of 60 hours in math and science.
- The bachelor of science and bachelor of liberal arts degrees do not require any foreign language.

Students may earn a bachelor of science degree in the following disciplines:

- Chemistry
- Environmental Science
- Geography
- Geology
- Mathematics and Statistics
- Physics

In all instances, students should contact the appropriate department concerning its requirements for a bachelor of science degree.

CAS Degree Requirements

1. Six (6) credit hours in the Social & Behavioral Sciences Division of CAS.
2. Six (6) credit hours in the Arts & Humanities Division of CAS. (ENGLISH 110, ENGLISH 225, COMM-ST 110, and foreign language courses at 211 or below are not eligible to fulfill this requirement.)
3. Six (6) credit hours in the Science & Math Division of CAS.

PLEASE NOTE:

a. See table below for the College of Arts and Sciences degree programs identified by Division.

b. Courses taken to fulfill the CAS degree requirements are to be taken outside of the major department (for B.A. and B.S. degrees). However, if the major requires courses outside of the major department, those courses may count toward the CAS degree requirements.

c. Classes may not be double-counted for both UMKC general education core and CAS degree requirements.


Upper-level (300/400 level) Writing Intensive courses are designated with WI, PW or LW following the course number. Writing Intensive courses should be completed during the junior or senior year and after completion of Discourse II (or its equivalent) and the RooWriter.

5. Foreign Language

Bachelor of arts students are required to demonstrate competence at the third-semester level of a foreign language.

a. Students with high school or other foreign language experience are strongly recommended to take the language placement exam, which can be accessed on the Department of Foreign Languages and Literatures website (http://cas.umkc.edu/foreignlanguages).

b. Students who have satisfactorily completed two years of a foreign language in high school will be exempt from the 110 college-level course and will be required to complete only two additional courses (120 college-level and above) in the same foreign language. Students who completed four years of the same foreign language in high school must complete only one additional sophomore level (211 or above) course in the same language.

c. Credits earned in HSCP dual enrollment courses in high school count as courses taken in the Foreign Languages and Literatures department.

d. UMKC currently recognizes specific scores on the AP and IB foreign language exams to count as credit earned, so these credits would be recognized as fulfilling the first year (110 and 120) of the language requirement. Inquiries may be directed to an academic advisor in the Arts and Sciences Academic Advising Office, 9 Scofield Hall.

e. Students whose education through eighth grade or the equivalent has been in a language other than English and in a non-English speaking country shall be exempt from the foreign language requirement for the CAS degree requirements. Students must bring an exemption form to the Department of Foreign Languages and Literatures for an official signature. Students who cannot document their schooling as indicated above, but who are proficient in all four skills (reading, writing, speaking, understanding) of a language other than English may be able to take
Degree Requirements

a proficiency test. The test should be certified by the American Council of Teachers of Foreign Languages (ACTFL) or a similar accrediting agency. Contact the Department of Foreign Languages and Literatures for information about such exams and the level of proficiency required for exemption from the foreign language requirement.

f. Students will not receive college credit towards a degree for any of the above exemptions. If a student skips over a class, for whatever reason, the student will not get credit as if the class had been taken.

g. Students who have had more than two years of a foreign language in high school may not enroll in the 110-level course of that language at UMKC without specific permission of either the section head/coordinator for that language or the chair of the Department of Foreign Languages and Literatures in cases where there is no course coordinator (i.e., students who have taken three or more years of French may not enroll in FRENCH 110, those who have taken three or more years of Spanish may not enroll in SPANISH 110, and the same for all other languages taught at UMKC).

h. Heritage speakers may not enroll in 110-level courses without permission of the language coordinator or section head for their language, or the chair of the Department of Foreign Languages and Literatures in cases where there is no course coordinator. (Note: A heritage speaker is someone who grows up with a certain family language in the home which is different from the dominant language in the country. In the case of the United States, the dominant language is English. A student who grows up in a family in which they speak Spanish, Chinese, Arabic, Russian, etc., would be a heritage speaker of that language.)

6. The following requirements may be fulfilled by courses from either the UMKC General Education Core or the College of Arts and Sciences Degree Requirements.

   a. MATH 110, MATH 116, MATH 120 or any 200-level or above MATH/STAT course
   b. Laboratory Science experience
   c. Missouri Constitution course. Every student must fulfill the Missouri state requirement to take a course covering the United States Constitution and the Missouri State Constitution before graduation. Courses that satisfy this requirement are:
      • CJC 364;
      • HISTORY 101, HISTORY 102, HISTORY 360R;
      • POL-SCI 210

7. Additional Requirements and Restrictions:
   a. A minimum of 120 total credit hours is required for graduation.
   b. Thirty (30) credit hours of coursework must be taken at UMKC.
   c. At least 36 credit hours must be at the 300/400 level.
   d. A 2.0 overall GPA is required for graduation. However, the required major GPA may be higher, as determined by each department individually.
   e. A maximum of 3 hours of one-credit activity courses in physical education may be applied toward the 120 credit-hour minimum.
   f. The RooWriter Assessment.

The College offers the following degree programs identified by Division:

<table>
<thead>
<tr>
<th>Anthropology</th>
<th>Social and Behavioral Sciences</th>
</tr>
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<tbody>
<tr>
<td>Architecture</td>
<td>Arts &amp; Humanities</td>
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<tr>
<td>Art/Art History</td>
<td>Arts &amp; Humanities</td>
</tr>
<tr>
<td>Black Studies</td>
<td>Social and Behavioral Sciences (selected courses) and Arts &amp; Humanities (selected courses)</td>
</tr>
<tr>
<td>Chemistry</td>
<td>Science &amp; Math</td>
</tr>
<tr>
<td>Classical/Ancient Studies</td>
<td>Social and Behavioral Sciences (selected courses), Arts &amp; Humanities (selected courses), and Science &amp; Math (selected courses)</td>
</tr>
<tr>
<td>Communication Studies</td>
<td>Arts &amp; Humanities</td>
</tr>
<tr>
<td>Criminal Justice/Criminology</td>
<td>Social and Behavioral Sciences</td>
</tr>
<tr>
<td>Economics</td>
<td>Social and Behavioral Sciences</td>
</tr>
<tr>
<td>English Language/Literature</td>
<td>Arts &amp; Humanities</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>Science &amp; Math</td>
</tr>
<tr>
<td>Environmental Studies</td>
<td>Social and Behavioral Sciences</td>
</tr>
<tr>
<td>Family Studies</td>
<td>Social and Behavioral Sciences</td>
</tr>
<tr>
<td>Foreign Language/Literatures</td>
<td>Arts &amp; Humanities</td>
</tr>
<tr>
<td>Geography</td>
<td>Social and Behavioral Sciences (selected courses) and Science &amp; Math (selected courses)</td>
</tr>
<tr>
<td>Geology</td>
<td>Science &amp; Math</td>
</tr>
<tr>
<td>Gerontology</td>
<td>Social and Behavioral Sciences</td>
</tr>
<tr>
<td>History</td>
<td>Social and Behavioral Sciences</td>
</tr>
<tr>
<td>Humanities</td>
<td>Arts &amp; Humanities</td>
</tr>
<tr>
<td>Latina/Latino Studies</td>
<td>Social and Behavioral Sciences (selected courses) and Arts &amp; Humanities (selected courses)</td>
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</tr>
<tr>
<td>Mathematics and Statistics</td>
<td>Science &amp; Math</td>
</tr>
<tr>
<td>Natural Science</td>
<td>Science &amp; Math</td>
</tr>
<tr>
<td>Philosophy</td>
<td>Arts &amp; Humanities</td>
</tr>
<tr>
<td>Physical Science</td>
<td>Science &amp; Math</td>
</tr>
<tr>
<td>Physics and Astronomy</td>
<td>Science &amp; Math</td>
</tr>
<tr>
<td>Political Science</td>
<td>Social and Behavioral Sciences</td>
</tr>
<tr>
<td>Psychology</td>
<td>Social and Behavioral Sciences</td>
</tr>
<tr>
<td>Religious Studies</td>
<td>Arts &amp; Humanities</td>
</tr>
<tr>
<td>Social Science</td>
<td>Social and Behavioral Sciences</td>
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<tr>
<td>Social Work</td>
<td>Social and Behavioral Sciences</td>
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<tr>
<td>Sociology</td>
<td>Social and Behavioral Sciences</td>
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<tr>
<td>Theatre</td>
<td>Arts &amp; Humanities</td>
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<tr>
<td>Urban Planning &amp; Design</td>
<td>Social and Behavioral Sciences</td>
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<tr>
<td>Urban Studies</td>
<td>Social and Behavioral Sciences</td>
</tr>
<tr>
<td>Women's &amp; Gender Studies</td>
<td>Arts &amp; Humanities (selected courses) and Social and Behavioral Sciences (selected courses)</td>
</tr>
</tbody>
</table>
Credit by Examination

Students may gain credit by any or all of the four methods listed below:

- International Baccalaureate (IB) (http://www.umkc.edu/registrar/transfer-credit/default.asp).
- Advanced Placement (AP) (http://www.umkc.edu/registrar/transfer-credit/default.asp).
- College Level Examination Program (CLEP) (http://www.umkc.edu/registrar/transfer-credit/default.asp).
- Departmental Exam (http://www.umkc.edu/registrar/transfer-credit/default.asp).

See the General Undergraduate Academic Regulations and Information section of this catalog for additional information.
Special Opportunities

• Fellowships & Awards (p. 640)
• Dual Credit High School/College Partnerships (HSCP) (p. 641)
• Independent Study (p. 642)
• Scholarships (p. 643)
• Student Council (p. 644)
• Study Abroad (p. 645)
• Undergraduate Research (p. 646)
Fellowships and Awards

International Academic Programs (IAP) assists students who want to apply for major fellowships that support continued undergraduate study and graduate school. The IAP Web site identifies an extensive list of these fellowships for both national and international study, including, but not limited to the Truman, Goldwater, Udall, Fulbright, Rhodes, Marshall, Jack Kent Cooke, NSEP Boren, and Rotary. These are highly competitive awards that demand careful planning and a commitment of time and effort. All fellowships require applicants to have a high GPA. In addition, typical eligibility criteria include a record of community service, evidence of undergraduate research or original work, strong faculty references, and a commitment to future academic or public service. A number of the fellowships require an on-campus review and nomination before a candidate can move forward to the national competition. Most of these fellowships provide substantial financial support as well as opportunities for travel and specialized seminars with fellow grantees. For additional information please call (816) 235-5759 or visit http://www.umkc.edu/international.
Dual Credit High School/College Partnerships (HSCP)

The College offers advanced students in many Kansas City area high schools the opportunity to earn UMKC credit prior to high school graduation through High School/College Partnerships (http://www.umkc.edu/hscp). Qualified students may enroll in introductory college courses that meet general requirements for a bachelor's degree.
Independent Study

The opportunity to undertake independent study is offered by many departments in the College of Arts and Sciences to students who qualify. Generally, the student receives the individual attention of a professor in the chosen field of study and completes a project that may involve any topic considered appropriate by that professor to the academic needs of the student. Typical kinds of independent study include: special reading topics, creative work in the humanities, research projects, performances in the arts or fieldwork experiences.
Scholarships

For scholarship information please visit http://cas.umkc.edu/scholarships/
Arts and Sciences Student Council

The council aims to provide an interdisciplinary body in which students can provide input on decisions and policies of the College of Arts and Sciences. The council works to enhance student-faculty interaction and communication; allocate its authorized budget; and ensure that Arts and Sciences students’ needs, desires and attitudes are correctly represented to the administration.
Study Abroad

International Academic Programs
Student Success Center, Room 120
(816) 235-5759
http://www.umkc.edu/international

In collaboration with International Academic Programs, the College of Arts and Sciences helps make available to its students a variety of study abroad programs that provide an exciting way to add a global dimension to their UMKC education through exploring and sharing the cultures of other countries.

Study abroad programs are available for a summer, a semester or an academic year. Students can earn credit towards their degree, and with careful planning, they should lose no time toward graduation. Study abroad is affordable since financial aid and scholarships are applicable to many programs, and other grants and scholarships are available specifically for study abroad.

The exchange university consortium, Mid-American Universities International, InterFuture, foreign exchanges offered through the Department of Foreign Languages and Literatures, and the Missouri-London program are among the many program choices available. Among the possible destinations are:

• Argentina
• Australia
• Austria
• Belgium
• Chile
• Costa Rica
• Czech Republic
• Denmark
• England
• Finland
• France
• Germany
• Greece
• Iceland
• Ireland
• Italy
• Korea
• Lithuania
• Malta
• Mexico
• Netherlands
• New Zealand
• Norway
• Portugal
• Scotland
• Slovenia
• South Africa
• Spain
• Sweden
• Switzerland

For more information regarding study abroad and related scholarships, please visit http://www.umkc.edu/international. Additionally, the UMKC Study Abroad Coordinator is available at (816) 235-5790.
Undergraduate Research

Undergraduate research opportunities are available in many disciplines within the College of Arts and Sciences. Interested students should speak with faculty members in their major department. When selecting a faculty mentor for undergraduate research, students should consider their own research or creative project ideas, courses they have taken, as well as faculty research interests.
School of Biological Sciences

Biological Sciences Building (http://www.umkc.edu/virtualtour/biological-sciences.asp), Room 013
5007 Rockhill Road
(816) 235-2580
Fax: (816) 235-2577
sbs-undergrad@umkc.edu
http://sbs.umkc.edu/

Mailing Address
University of Missouri-Kansas City
School of Biological Sciences
5100 Rockhill Road
Kansas City, MO 64110-2499

Dean:
Theodore White

Graduate Programs Officer:
Karen Bame

Director, Undergraduate Curriculum:
Aaron Reed

Director, Student Services and Advising:
Tammy Welchert

Interim Head, Division of Cell Biology and Biophysics:
Marilyn Yoder

Interim Head, Division of Molecular Biology and Biochemistry:
Tony Persechini

History and Description
The School of Biological Sciences was established (originally as the School of Basic Life Sciences) in 1985. The School's vision is "to better the quality of life through excellence in education and research." This vision is realized through the provision of quality education at the undergraduate and graduate levels, the expansion of knowledge through scientific research, and the application of scientific information for the advancement of human welfare. The School has been designated as an eminence program by the curators of the University of Missouri, and as such is a unit targeted for expansion and development.

Research by faculty, as well as graduate and undergraduate students, is focused on cellular and molecular aspects of modern biology, with emphases in molecular genetics, cell biology and structural biology. Advances in these areas will provide fundamental knowledge for biotechnology, molecular medicine, environmental remediation and computational biology. Students are encouraged to gain hands-on research experience, involving them in the process of creating knowledge and equipping them to shape the future.

Quality curriculum combined with research-active faculty and state-of-the-art equipment, provide students with an outstanding opportunity to expand critical thinking and problem solving skills while developing an in-depth understanding of the molecular, cellular, and genetic foundations of biological sciences.

Laboratories
The School of Biological Sciences has modern, well-equipped laboratories organized into the following divisions:

Division of Cell Biology and Biophysics
This division houses the laboratories of anatomy, biophysics, developmental biology, cell biology, microbiology, neurobiology, structural biology and virology.

Division of Molecular Biology and Biochemistry
This division houses the laboratories of biochemistry, genetics, genetic engineering, membrane biochemistry, molecular biology, macromolecular structure, neurophysiology and cellular and molecular physiology.
Organizations and Activities

A campus wide biological sciences seminar program is organized and administered by the school. Throughout the year, weekly advanced research seminars are held, featuring presentations by nationally recognized visiting scientists and campus faculty.

The School of Biological Sciences has both graduate and undergraduate student organizations that meet periodically for scientific discussions and social events.

Faculty

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Xiaolan Yao\textsuperscript{2,3}; assistant professor of biological sciences; B.S., M.S. (Zhenghou University, China); Ph.D. (Iowa State University).

Lynwood R. Yarbrough\textsuperscript{1}; adjunct professor of biological sciences; Ph.D. (Purdue University).

Marilyn Yoder\textsuperscript{2,3}; associate professor of biological sciences; B.S. (University of Kentucky); Ph.D. (University of California-Riverside).

Yu, Xiao-Qiang(Sean)\textsuperscript{2,3}; professor of biological sciences; Ph.D. (Kansas State University).

\textsuperscript{1} Associate or Adjunct Graduate Faculty
\textsuperscript{2} Members of UMKC Graduate Faculty
\textsuperscript{3} Members of UMKC Doctoral Faculty
\textsuperscript{4} Located at UM-St. Louis campus

**Undergraduate**

**Undergraduate Degrees:**

- Bachelor of Science in Biology (p. 667)
- Bachelor of Science in Biology, Biomedical Sciences Emphasis (p. 677)
- Bachelor of Science in Biology, Bioinformatics Emphasis (p. 672)
- Bachelor of Science in Biology, Biotechnology Emphasis (p. 681)
- Bachelor of Science in Biology, Cellular and Molecular Basis of Health and Disease Emphasis (p. 685)
- Bachelor of Science in Biology, Clinical Laboratory Science Emphasis (p. 690)
- Bachelor of Science in Biology, Pre-Dentistry Concentration (p. 694)
- Bachelor of Arts in Biology (p. 698)
- Bachelor of Arts in Biology, combined BA/MD dual degree (p. 702)
- Biology Honors Program (p. 705)
- Minor in Biology (p. 706)
- Elective Courses for the Non-Biology Major (p. 708)

Courses taught by the School of Biological Sciences support academic programs within the schools of Nursing, Dentistry, Medicine, Pharmacy and Education, and departments within the College of Arts and Sciences. An undergraduate minor in biology and a variety of courses that may interest non-biology majors are available to complement other fields of study, or to satisfy general education requirements of other academic units. A background in biology combined with non-science skills creates many career possibilities.

**General Information About Undergraduate Programs**

**Career Implications of a Bachelor's Degree in Biology**

Our programs prepare students for a variety of career opportunities. Some students choose careers in the pharmaceutical or biotech industries, while others opt for graduate study in areas such as bioinformatics, forensics, or cell biology. In addition, a biology major is an excellent choice for students planning careers in medicine, veterinary medicine, dentistry, optometry, physical therapy, and other health professions.

The bachelor of science in biology curriculum fulfills the admissions requirements for most medical schools and dental schools and incorporates intermediate and upper-level biology courses specifically recommended by medical/dental school admissions officers. Those who wish to follow the pre-med track have the option to pursue the bachelor of science in biology with the cellular and molecular basis of health and disease emphasis, or apply in Spring of their Sophomore year for admission to the competitive biomedical sciences emphasis. Students pursuing admission to dental school may earn a bachelor of science in biology while completing coursework in the a pre-dentistry concentration. Those who are interested in a career as a clinical laboratory scientist/medical technologist may choose to pursue the bachelor of science in biology with the clinical laboratory science emphasis.

**Undergraduate Advising**

The School of Biological Sciences’ team of well-trained academic advisors assists undergraduate students in developing individual plans of study. As teaching faculty, the advisors are uniquely qualified to help students understand and address course selection and professional development issues. Students will find the School of Biological Sciences Undergraduate Programs Handbook, which contains the latest information about degree requirements, academic rules, and related matters, on Blackboard under Biological Sciences Advising. Information on time management, reading and note-taking skills, communicating with professors, and taking exams can also be found on the Biological Sciences Advising site in Blackboard. To facilitate progress toward the student’s degree, and to ensure that courses selected provide an appropriate academic program, students are required to participate in advising each semester before registering for classes.
Students enrolled in double majors or degree programs are advised by both academic units. The primary academic unit generally has the major advising responsibility. However, for issues pertaining specifically to a biology degree, an advisor at the School of Biological Sciences must be consulted.

Students are responsible for becoming familiar with all academic regulations of the campus as outlined in the catalog and in other University documents, including the SBS Undergraduate Programs Handbook.

**Pre-Medicine, Pre-Dentistry and Pre-Health Professions Academic Advising**

The School of Biological Sciences’ experienced team of advisors is knowledgeable about admission requirements and application processes for health profession programs. It is important for students considering eventual application to medical, dental, or veterinary school or other professional programs to consult early and often with a School of Biological Sciences advisor about appropriate course selection and additional preparation.

Advisors assist the student in investigating programs throughout the country and in planning an individualized undergraduate course of study. In addition they host informational meetings/workshops about aspects of planning for a health professions career, provide information on admission exam preparation, assist in the application process and in developing a personal statement, and help the student work with Career Services to compile a letter of recommendation file. Each student receives support and encouragement during all phases of the application process. Students are strongly encouraged to take advantage of advisor expertise by discussing their career plans beginning with their first semester at UMKC. Please see the additional catalog section on Pre-Medicine/Pre-Health (p. 2281) for other information.

**Graduate**

**Graduate Degrees:**

- Master of Science in Cellular and Molecular Biology (p. 709)
- Emphasis in Bioinformatics (p. 709)
- Master of Arts in Biology (p. 711)
- Doctor of Philosophy Study (p. 712)

The School of Biological Sciences offers programs of study leading to a master of science degree in cellular and molecular biology. In addition, a master of arts degree in biology is offered. The school participates in UMKC’s Interdisciplinary Ph.D. program in Cell Biology/Biophysics and Molecular Biology/Biochemistry.

Graduates with research experience in cell biology and biophysics or molecular biology and biochemistry may enter careers in many areas, including biotechnology, pharmaceutics, academia or governmental research involving the environment, agriculture, energy, defense or health.

**General Information About Graduate Programs**

**Advising**

New students will be advised by the principal graduate advisor until they have selected their permanent research advisor. The graduate programs office will contact students in advance of their first semester for information about advising and registration.

Students are responsible for becoming familiar with all academic regulations of the campus as outlined in the catalog and in other University documents.

**Graduate Admission**

Admission to the school’s graduate programs is competitive and students are encouraged to apply early. Applications are reviewed by an admissions committee that evaluates students on the basis of past performance and evidence of ability to pursue graduate studies successfully. The school admits students to its doctoral and master’s degree programs throughout the year; however, early application (by Feb. 15) is advised to receive consideration for assistantships and other financial support.

Information on admission to master’s or Ph.D. degree programs may be found at the Graduate Programs Web site at http://www.umkc.edu/sbs/graduate/, in the Graduate Academic Regulations and Information (p. 1189) section of this catalog, by e-mail to sbs-grad@umkc.edu, or by writing to our graduate programs office at the mailing address at the beginning of this section.

Graduate teaching assistantships, graduate research assistantships and fellowships are available through the school and are awarded on a competitive basis. Currently, all fully admitted, full-time doctoral students receive financial support.

To be eligible for admission to the School of Biological Sciences’ graduate programs, the applicant must:

- Possess a bachelor’s degree in biological sciences or a related field with a minimum of 120 credit hours, or possess an advanced degree in a health sciences field.
- Have an undergraduate GPA of at least 3.0.
- Have sufficient background coursework to undertake graduate studies in biological sciences.
- Have acceptable scores in the Graduate Record Examination aptitude tests.
• Submit three letters of recommendation from individuals familiar with the student’s academic performance and scientific abilities.

Students may be admitted with certain deficiencies, with the stipulation that these can be removed early in the course of study.

Requirements for Retention

General requirements for retention of graduate students are described in the Graduate Academic Regulations and Information section of this catalog. For all graduate students, a 3.0 (B) GPA is required for satisfactory progress. No F grades are permitted.

Any doctoral student who receives more than one C grade in a basic course will be dropped from the doctoral program.

Any master's student who receives more than two C grades or more than one C and one D grade in graduate courses will be dropped from the program.

Biology Courses

BIOLOGY 102 Biology and Living Credits: 3
Introduction to structural organization and functional processes of living systems. For non-biology majors only. Does not count toward biology degree.

BIOLOGY 102L Biology and Living Laboratory Credit: 1
Exploration of basic biological concepts through laboratory activities requiring data collection and analysis. For non-majors only; does not count toward Biology degree requirements.

Prerequisites: BIOLOGY 102.

BIOLOGY 108 General Biology I Credits: 3
Fundamental studies in biology emphasizing the unity and diversity of life. Topics include the basic chemistry of biological processes, cell types and organelles, energy harvesting and energy producing pathways, cell and life cycles, genetics, DNA structure, genes, transcription, translation, natural selection, population genetics, speciation, and phylogenetic analysis.

BIOLOGY 108L General Biology I Laboratory Credit: 1
Basic laboratory studies in Biology emphasizing the unity and diversity of life. Structure, function, heredity, development, ecology and evolution will be explored.

Co-requisites: BIOLOGY 108.

BIOLOGY 109 General Biology II Credits: 3
Fundamental studies in biology emphasizing the unity and diversity of life. Topics include prokaryotes, fungi, invertebrate-vertebrate zoology and phylogeny, human evolution, plant structure and development, animal development and physiology, ecology (population and ecosystems).

BIOLOGY 109L General Biology II Laboratory Credit: 1
Basic laboratory studies in Biology emphasizing the unity and diversity of life. Structure, function, heredity, development, regulation of growth and evolution will be explored.


BIOLOGY 115 First Year Seminar Credit: 1
This course is designed to provide students with the skills necessary to achieve success at the university. The curriculum includes time management, study, reading, note-taking and test-taking strategies, health and wellness, and student support services. Additional emphasis will include career exploration, including professionalism, writing a resume, and developing plan of study for degree completion.

BIOLOGY 122 Human Genetics Credits: 3
This is a non-majors biology course in human genetics designed for those with little classroom training in the sciences. The focus will be on the nature of human genetic variation and how variation shapes and affects our lives. This includes the structure and function of genes and how genes create traits. The discussion will focus on how genes function in human development through sex determination. The inclusion of human genomic sequencing technology and personal genomics will emphasize several issues related to knowledge and privacy.

BIOLOGY 122 - MOTR LIFS 100: Essentials in Human Biology
BIOLOGY 125L Guided Research in Biology Credits: 2
An introduction to basic principles and methods of scientific research in the biological sciences. Students will engage in experimental design, use of bioinformatic tools, molecular graphics, and specialized tools related to different biology disciplines to characterize a specific gene or cell system under the guidance of a faculty member.
Prerequisites: BIOLOGY 108, Biology major.

BIOLOGY 201 Preparing for Careers in Biology Credit: 1
This course will help students prepare for their post-undergraduate future. Topics will include communication, skills identification and marketing, how to find employment or internship opportunities, a review of the application process for graduate education and the role of undergraduate research.
Prerequisites: Sophomore standing

BIOLOGY 202 Cell Biology Credits: 3
Basic concepts of cellular and subcellular structure and function, including supramolecular and organelle structure and organization, bioenergetics, cell growth and cellular communication.

BIOLOGY 203 Essential Cell Biology Credits: 3
Introduction to the study of populations, communities, and ecosystems by examining the interrelationships between living organisms and their environments. The role of natural selection and evolution will also be considered.
Prerequisites: BIOLOGY 108, BIOLOGY 109 (or BIOLOGY 102).

BIOLOGY 302 General Ecology Credits: 3
Introduction to the study of populations, communities, and ecosystems by examining the interrelationships between living organisms and their environments. The role of natural selection and evolution will also be considered.
Prerequisites: BIOLOGY 108, BIOLOGY 109 (or BIOLOGY 102).

BIOLOGY 302L Ecology Laboratory Credits: 2
This course provides laboratory and field experience in ecology. The course will cover topics including statistical analysis and data presentation, terrestrial and aquatic sampling, experimental design and scientific writing.
Co-requisites: BIOLOGY 302.

BIOLOGY 303 Invertebrate Zoology Credits: 3
Taxonomy, evolutionary relationships, behavior, reproduction, morphology and ecology of the invertebrates.
Prerequisites: BIOLOGY 108, BIOLOGY 109, CHEM 212R.

BIOLOGY 305 Marine and Freshwater Biology Credits: 3
Introduction to the study of marine ecology, deep-sea biology, oceanic nekton, inter-tidal ecology, estuaries, mangroves and salt marshes, as well as ecology of rivers, lakes, streams, wetlands and human impact on aquatic habitats.
Prerequisites: BIOLOGY 108, BIOLOGY 109, CHEM 211.

BIOLOGY 308 Vertebrate Zoology Credits: 3
Taxonomy, evolutionary relationships, behavior, reproduction, morphology and ecology of the vertebrates.
Prerequisites: BIOLOGY 108, BIOLOGY 109, CHEM 212R.

BIOLOGY 312WL Laboratory in Developmental Biology, Genetics and Cell Biology Credits: 3
Experimental studies of genetics and development in selected eukaryotic model organisms with an emphasis on the molecular and cellular mechanism of inheritance.
Prerequisites: LS-BIOC 441.
Co-requisites: BIOLOGY 409.

BIOLOGY 314 Entomology Credits: 3
Anatomy, physiology and identification of insects with emphasis on their environmental adaptations.
Prerequisites: BIOLOGY 109 (or LS-ANATO 219).

BIOLOGY 319 Global Health: New and Emerging Infectious Diseases Credits: 3
This course will discuss infectious diseases that are newly identified, or increasing in prevalence throughout the world. Several aspects of each disease will be discussed, including transmission, symptoms, treatment, prevention, and diagnosis. The course is meant for students interested in a health-related career (medicine, dental, pharmacy, public health), but other students with a basic biology background are welcome.
Prerequisites: BIOLOGY 108, BIOLOGY 109 (or BIOLOGY 102).
BIOLOGY 322 General Parasitology Credits: 3
Parasitic protists, worms and arthropods and the disease states they may induce, will be examined in relationship to human, animal and plants hosts.
Prerequisites: BIOLOGY 109 (or LS-ANATO 219).

BIOLOGY 326 Biological Conservation Credits: 3
Applications of ecology and genetics to the conservation of communities and individual species, including discussion of the Endangered Species Act, extinction processes, and the effects of habitat fragmentation.
Prerequisites: BIOLOGY 108, BIOLOGY 109.

BIOLOGY 327 Biogeography and Biodiversity Credits: 2
Evolutionary and climatological effects on the geographic distribution of organisms, including areas of endemism as well as preservation of biodiversity.
Prerequisites: BIOLOGY 108, BIOLOGY 109.

BIOLOGY 328 Histology Credits: 2
Animal tissues and their specialization in the organism, with major emphasis on higher organisms.
Prerequisites: BIOLOGY 109, BIOLOGY 202, CHEM 212R.

BIOLOGY 328L Laboratory in Histology and Cellular Ultrastructure Credits: 3
Examination of structure/function relationships at the subcellular, cellular and organ levels. Both plants and animals will be examined with emphasis on vertebrates.
Prerequisites: BIOLOGY 202, BIOLOGY 328.

Co-requisites: CHEM 212R.

BIOLOGY 328WL Laboratory in Histology and Cellular Ultrastructure Credits: 3
Examination of structure/function relationships at the subcellular, cellular and organ levels. Both plants and animals will be examined with emphasis on vertebrates.
Prerequisites: BIOLOGY 202, CHEM 212R.

Co-requisites: BIOLOGY 328.

BIOLOGY 329 Endocrinology Credits: 3
Study of the physiological functions and controls in human and related mammalian systems, with emphasis on endocrine-directed processes that underlie normal and abnormal metabolic and clinical conditions. The course will be presented in traditional lecture format, and focus on the molecular, chemical, membrane and cellular basis of metabolic homeostatic processes in cells, cytoplasmic compartments and primary organ systems.
Prerequisites: BIOLOGY 202.

Co-requisites: LS-PHYS 316.

BIOLOGY 331 Reproductive Biology Credits: 2
Comprehensive overview of current concepts and knowledge regarding male and female reproductive processes, from gametogenesis through early placentation. Includes structural, developmental, physiological and pathophysiological aspects of reproduction.

BIOLOGY 338L Comparative Vertebrate Anatomy Laboratory Credits: 3
This class explores anatomical similarities and differences that exist between the major vertebrate groups and relates aspects of anatomy to evolutionary history and function. Students will gain hands-on experience of anatomy through dissection and examination of several model vertebrates.
Prerequisites: BIOLOGY 108, and BIOLOGY 109, and BIOLOGY 109L.

BIOLOGY 344 Bioorganic Structure and Biomolecular Function Credits: 3
An introduction to chemical and physical properties of complex biological macromolecules and their functions in living cells. Nomenclature, functional groups, reactions and stereochemistry are among the topics to be emphasized.
Prerequisites: BIOLOGY 109, CHEM 320, CHEM 322R.

BIOLOGY 346 Plant Biology Credits: 3
An integrative study of growth, development, and reproduction of plants, including structure and function of plant tissues and organs, as well as a survey of the recent advances in genetic engineering, plant defense mechanisms, and medical botany and the usefulness of plants to humans.

BIOLOGY 350 Assisting Undergraduate Learning in Biology Credits: 1-3
This course addresses current issues and pedagogy of teaching biology and providing instructional support for designated undergraduate courses in the School of Biological Sciences. Students meet weekly with the course instructor and assist in the classroom, studio, or laboratory.
Prerequisites: BIOLOGY 108, BIOLOGY 109, BIOLOGY 202, BIOLOGY 206.
BIOLOGY 385 Special Topics Credits: 1-3
In depth exploration of a topic in biology. Repeatable toward the major only when the topic changes.

BIOLOGY 405 Introduction to Evolution Credits: 3
Discussion of the biological processes that produce organic diversity through phyletic change, including variation, mutation, adaptation, population genetics, natural selection, genetic drift, gene flow, and macroevolution.
Prerequisites: BIOLOGY 206.

BIOLOGY 409 Developmental Biology Credits: 3
Principles of development and differentiation of structure during embryology in animals. Molecular, cellular and organismal level concepts and mechanisms will be considered.
Prerequisites: BIOLOGY 202, BIOLOGY 206.

BIOLOGY 415 Pathophysiology Credits: 3
Pathophysiology will focus on the physiological basis of cellular and tissue function, and the consequences of dysregulated metabolic/cellular expression on essential homeostatic processes in cells, cytoplasmic compartments and primary organ systems.
Prerequisites: LS-PHYS 316.

BIOLOGY 427 Plant Physiology Credits: 3
A study of the biochemical and physical processes involved in plant function at the molecular and cellular level and the mechanisms by which plants respond to environmental challenges.
Prerequisites: BIOLOGY 202, BIOLOGY 206, LS-BIOC 441.

BIOLOGY 442 Neurobiology Credits: 3
Neurobiology will consist of the presentation of theory and data concerning cellular and molecular fundamentals of the nervous system, synaptic mechanisms, sensory-motor systems, and higher-order functions of the nervous system.
Prerequisites: LS-BIOC 441 or LS-PHYS 316.

BIOLOGY 445 Evolutionary Ecology Credits: 3
This class explores the scientific concepts and methods underpinning modern understanding of evolutionary ecology as it relates to organisms. Students will gain hands-on experience using techniques that are central to quantitative and qualitative studies of organismal evolutionary ecology.
Prerequisites: BIOLOGY 302, BIOLOGY 405.

BIOLOGY 485 Special Topics Credits: 1-3
In depth exploration of a topic in biology. Repeatable toward the major only when the topic changes.

BIOLOGY 498WI Critical Analysis of Biological Issues Credits: 3
Reading and analysis of scientific literature, including original papers, on a topic of broad biological interest. Critical discussion of experimental methods and results. Writing of scientific reviews and a term paper. Taking the MFAT test is a requirement of this course, and the course satisfies the general education synthesis requirement.
Prerequisites: BIOLOGY 108, BIOLOGY 109, BIOLOGY 202, BIOLOGY 206, CHEM 320 (or CHEM 322R), RooWriter.

BIOLOGY 5501 Proposal Writing Credit: 1
This course addresses how to develop a testable hypothesis, and write a NIH-style proposal to convince the reader of the significance of the proposed studies. Students will write a proposal that will form the basis of their oral comprehensive exam in the Cell Biology and Biophysics (CBB) and Molecular Biology and Biochemistry (MBB) disciplines. The is limited to doctoral students with CBB and MBB coordinating disciplines.
Prerequisites: Plan of Study filed with the School of Graduate Studies.

BIOLOGY 5510 Gross Anatomy for Nurse Anesthetists Credits: 3
This course will present and examine the anatomic concepts and conditions essential for critical thinking and decision making by the nurse anesthetist. Specifically, the course will provide the foundation upon which patient interventions may be based during the perioperative period.
Prerequisites: Graduate status.
Co-requisites: BIOLOGY 5510L.

BIOLOGY 5510L Gross Anatomy for Nurse Anesthetists Credit: 1
This laboratory course will present and examine the anatomic concepts and conditions essential for critical thinking and decision making by the nurse anesthetist. Specifically, the course will provide the foundation upon which patient intervention may be based during the perioperative period.
Prerequisites: Graduate status.
Co-requisites: BIOLOGY 5510.

BIOLOGY 5519 Principles of Evolution Credits: 3
Synthesis of the modern concepts of evolution. Discussion of the biological processes that produce organic diversity through phyletic change. Discussed are variation, mutation, population genetics, natural selection and adaptation.
Prerequisites: BIOLOGY 206.
BIOLOGY 5525 Bioinformatics and Data Analysis Credits: 3
Methods and procedures for the storage, retrieval and analysis of information in biomolecular and biological databases. Emphasis will be given to the use of database information in biological research and to recent developments in genomics and proteomics.
Prerequisites: LS-BIOC 441, LS-BIOC 360.

BIOLOGY 5528 Human Genomic Epidemiology Credits: 3
This course is designed for biological researchers and clinicians interested in studying common human diseases using state-of-the-art genomics/genetics epidemiological approaches. The course provides a basic yet comprehensive introduction to key topics in human genome epidemiological research, including basic concepts and methodologies of quantitative/statistical genetics, an introduction to emerging technologies and analytical methods for genomic science, basic study for various types of genomic research approaches, utilization of widely-used software packages for analyses of genomic data, and examples of human genome epidemiology information improving health, and ethical, legal and social issues in the design and conduct of human genome epidemiology studies.

BIOLOGY 5534 Cardiovascular Pulmonary Physiology Credits: 3
Function of the cardiovascular and pulmonary systems at the cellular, tissue, and system levels with particular emphasis on regulation, maintenance of homeostasis and integration with other systems.
Prerequisites: LS-PHYS 316 (or equivalent).

BIOLOGY 5539 Mammalian Physiology Credits: 4
Study of the physiological functions and controls in human and related mammalian systems, with emphasis on fundamental processes that underlie normal and abnormal clinical conditions.
Prerequisites: LS-PHYS 316 (or equivalent).

BIOLOGY 5540 Pathophysiology Credits: 4
Pathophysiology will focus on the physiological basis of cellular and tissue function, and the consequences of dysregulated metabolic/cellular expression on essential homeostatic processes in cells, cytoplasmic compartments and primary organ systems.
Prerequisites: BIOLOGY 5539.

BIOLOGY 5542 Neurobiology Credits: 3
Neurobiology will consist of the presentation of theory and data concerning cellular and molecular fundamentals of the nervous system, synaptic mechanisms, sensor-motor systems, and higher-order functions of the nervous system.
Prerequisites: LS-BIOC 304.

BIOLOGY 5591 Directed Individual Studies Credits: 1-6
Intensive readings and/or research in an area selected by the graduate student in consultation with the instructor. Not to be identified with thesis research.

BIOLOGY 5592 Master of Arts Topics in Biology Credits: 1-6
Special problems and topics in biology specifically intended to satisfy the project or report requirement for the master of arts degree in biology.
Prerequisites: Nine hours of graduate work in Biology.

BIOLOGY 5593 Master of Science Topics Credits: 1-4
Investigation of problems and topics to satisfy the M.S. topics requirement for the master of science degree in Cellular and Molecular Biology.
Prerequisites: LS-MBB 5561, LS-MBB 5562.

BIOLOGY 5899 Required Graduate Enrollment Credit: 1

BIOLOGY D285 Special Topics Credits: 1-3
In depth exploration of a topic in biology

Life Sciences Courses

LIFE-SCI 201 Healthcare Professions Seminar Credit: 1
This course will introduce students to various healthcare professions. Guest speakers will cover topics including day-to-day activities on the job, educational requirements, career advancement, and necessary interests and abilities.
Prerequisites: BIOLOGY 108, BIOLOGY 109, CHEM 212R.

LIFE-SCI 202 Preparing for Careers in Healthcare Credit: 1
Students will gain an understanding of the role and scope of practice of health professionals, patient privacy, professionalism, professional school applications and a deeper appreciation of what it means to be a patient through facilitated shadowing experiences.
Prerequisites: BIOLOGY 202, BIOLOGY 206, CHEM 322R.
LIFE-SCI 310 Fundamentals of Medicine I Credits: 2
This course introduces students to various aspects of women’s health care. In addition, students will consider the cultural diversity of caring for patients with various medical conditions, and will integrate information from the basic sciences, the, and the social sciences as they learn about health care.
Prerequisites: BIOLOGY 202, BIOLOGY 206.

LIFE-SCI 320 Fundamentals of Medicine II Credits: 2
This course introduces students to the aging process and various medical conditions in the elderly. Cultural diversity within aging patient populations will be discussed. Students will experience personal growth and reflection.
Prerequisites: LIFE-SCI 310.

LIFE-SCI 330 Fundamentals of Medicine III Credits: 2
This course introduces students to various aspects of pediatric health care. Students will become familiar with medical symptoms and clinical findings while integrating knowledge in anatomy, physiology, and pathophysiology of infants, children, and adolescents.
Prerequisites: LIFE-SCI 320.

LIFE-SCI 340 Fundamentals of Medicine IV Credits: 2
This course introduces students to aspects of adult health care, including bioethics, conflict resolution, informed consent, and human subject research. Presentations on various medical symptoms and clinical findings will be provided to integrate anatomy, physiology, and pathophysiology for learning about acute and chronic medical conditions.
Prerequisites: LIFE-SCI 330.

LIFE-SCI 399 Introduction to Research Credits: 1-3
Introduction to the theory and practice of research in modern biological sciences. Requires minimum of 3-4 hours per week in the laboratory for each credit hour.
Prerequisites: BIOLOGY 108, BIOLOGY 109, CHEM 212R, 3.0 Science GPA.

LIFE-SCI 401 Biophysical Principles Credits: 3
Fundamental biophysical concepts and their application to the study of biological molecules, particularly macromolecules and supramolecular structures. Includes discussion of thermodynamics, kinetics, and spectroscopy.
Prerequisites: LS-BIOC 441, MATH 210, PHYSICS 210 (or PHYSICS 240).

LIFE-SCI 438 Molecular Recognition in Cellular Biology Credits: 2
Studies the latest development leading to an increased understanding of cellular biology processes when the experimental tools of structural biology analysis and molecular genetics are applied.
Prerequisites: BIOLOGY 108, BIOLOGY 109, BIOLOGY 202, BIOLOGY 206, LS-BIOC 441.

LIFE-SCI 490WI Senior Seminar Credits: 3
Discussion, writing and specific readings to coordinate with and amplify topics covered in School of Biological Sciences seminars; must include a term paper on a specific topic. Writing Intensive.
Prerequisites: RooWriter.

LIFE-SCI 497A Directed Studies-Bioinformatics Credits: 1-3
Individual or small group study of topics in the area of bioinformatics including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497B Directed Studies-Genetics Credits: 1-3
Individual or small group study of topics in the area of genetics including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497BB Directed Studies: Behavioral Biology Credits: 1-3
Individual or small group study of topics in the area of behavioral biology including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497C Directed Studies-Microbiology Credits: 1-3
Individual or small group study of topics in the area of microbiology including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.
LIFE-SCI 497D Directed Studies-Physiology Credits: 1-3
Individual or small group study of topics in the area of physiology including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497E Directed Studies - Biochemistry Credits: 1-3
Individual or small group study of topics in the area of biochemistry including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497F Directed Studies - Biophysics Credits: 1-3
Individual or small group study of topics in the area of biophysics including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497G Directed Studies - Cell Biology Credits: 1-3
Individual or small group study of topics in the area of cell biology including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497H Directed Studies - Neuroscience Credits: 1-3
Individual or small group study of topics in the area of neuroscience including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497I Directed Studies-Botany Credits: 1-3
Individual or small group study of topics in the area of botany including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497J Directed Studies-Zoology Credits: 1-3
Individual or small group study of topics in the area of zoology including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497K Directed Studies - Ecology Credits: 1-3
Individual or small group study of topics in the area of ecology including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497L Directed Studies - Biological Sciences Credits: 1-3
Individual or small group study of topics in the area of biological sciences including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497P Directed Studies - Biotechnology Credits: 1-3
Individual or small group study of topics in the area of biotechnology including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499A Undergraduate Research-Bioinformatics Credits: 1-3
Independent research, including the writing of research reports in the area of bioinformatics. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499B Undergraduate Research-Genetics Credits: 1-3
Independent research, including the writing of research reports in the area of genetics. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.
LIFE-SCI 499C Undergraduate Research-Microbiology Credits: 1-3
Independent research, including the writing of research reports in the area of microbiology. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499D Undergraduate Research-Physiology Credits: 1-3
Independent research, including the writing of research reports in the area of physiology. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499E Undergraduate Research-Biochemistry Credits: 1-3
Independent research, including the writing of research reports in the area of biochemistry. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499F Undergraduate Research-Biophysics Credits: 1-3
Independent research, including the writing of research reports in the area of biophysics. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499G Undergraduate Research-Cell Biology Credits: 1-3
Independent research, including the writing of research reports in the area of cell biology. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499H Undergraduate Research-Neuroscience Credits: 1-3
Independent research, including writing of research reports in the area of neuroscience. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499I Undergraduate Research-Botany Credits: 1-3
Independent research, including the writing of research reports in the area of botany. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499J Undergraduate Research-Zoology Credits: 1-3
Independent research, including the writing of research reports in the area of zoology. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499K Undergraduate Research-Ecology Credits: 1-3
Independent research, including the writing of research reports in the area of ecology. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499L Undergraduate Research-Biological Sciences Credits: 1-3
Independent research, including the writing of research reports in the area of biological sciences. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499M Undergraduate Research-Biological Sciences Honors Credits: 1-3
Independent research, including the writing of research reports in the area of biological sciences.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499P Undergraduate Research-Biotechnology Credits: 1-3
Independent research, including the writing of research reports in the area of biotechnology. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 5899 Required Graduate Enrollment Credit: 1
LIFE-SCI H490WI Honors Senior Seminar Credits: 3
Discussion, writing and specific readings to coordinate with and amplify topics covered in School of Biological Sciences seminars; must include a term paper on a specific topic. Writing Intensive.
Prerequisites: RooWriter.
**Life Sciences - Anatomy Courses**

LS-ANATO 218 Introductory Anatomy Credits: 3  
Description and discussion of the cells, organs, organ systems and basic tissues of vertebrates with special emphasis on their interrelationships in functional anatomy.  
**Prerequisites:** BIOLOGY 102 (or BIOLOGY 108) (or BIOLOGY 109).

LS-ANATO 218L Introductory Anatomy Laboratory Credits: 2  
Laboratory investigation of cells, tissues, and organs with special emphasis on their interrelationship in vertebrates.  
**Co-requisites:** LS-ANATO 218.

LS-ANATO 219 Functional Anatomy I Credits: 3  
An introduction to the functional anatomy of vertebrates with emphasis on organs, organ systems and tissues.

LS-ANATO 219L Functional Anatomy I Laboratory Credit: 1  
An introduction to the functional anatomy of vertebrates with emphasis on organs, organ systems and tissues.

**Life Sciences - Biochemistry Courses**

LS-BIOC 304 Biochemistry and Nutrition Credits: 4  
The chemistry of the structures and processes of the human body in their normal condition with special consideration of the chemical aspects of disease of the oral structure. A presentation of the basic principles of nutrition.

LS-BIOC 3120 Biochemistry and Nutrition Credits: 3  
The fundamentals of biochemistry and the nutritional implications as they relate to source and utilization of essential nutrients.

LS-BIOC 3240 Applied Nutrition Credits: 3  
Students will discuss life cycle nutrition as it relates to preventive dentistry and total health. Nutritional factors from infancy to old age are discussed, including diet and nutrition for special patients such as expectant mothers, diabetics, patients with heart disease, fracture patients, institutionalized patients, etc. Students will provide nutritional counseling to healthy patients and special patients within the framework of the course. Principles will be utilized in later clinical courses and practicums.

LS-BIOC 341 Basic Biochemistry Credits: 3  
One semester course covering the properties of organic compounds important to biological systems. Structures, characterization and reactions of common compounds and their relationship to the building blocks of biological systems will be discussed.  
**Prerequisites:** BIOLOGY 202, CHEM 320 (or CHEM 322R).

LS-BIOC 360 Biochemistry Credits: 3  
Introduction to modern biochemistry. Structure and function of biologically important compounds, major biochemical pathways and their regulation in animals, plants and microorganisms, and the molecular and biochemical basis of gene function will be studied.  
**Prerequisites:** BIOLOGY 202, BIOLOGY 206, CHEM 320 (or CHEM 322R), LS-BIOC 441.

LS-BIOC 360L Laboratory in Biochemistry and Molecular Biology Credits: 3  
Laboratory studies in biochemistry and molecular biology with an emphasis on modern techniques and quantitative relationships.  
**Prerequisites:** LS-BIOC 441.

LS-BIOC 360WL Laboratory in Biochemistry and Molecular Biology Credits: 3  
Laboratory studies in biochemistry and molecular Biology with an emphasis on modern techniques and quantitative relationships.  
**Prerequisites:** LS-BIOC 441.

LS-BIOC 365 Human Biochemistry I Credits: 3  
The basic principles of human biochemistry for pharmacy students presented in a two-term integrated unit. Topics will include the chemistry and mechanisms involved in biosynthesis, degradations and utilization of the major constituents of living systems and the biochemistry of specialized tissues, hormones, nutrition and regulation. Restricted to students in the School of Pharmacy.  
**Prerequisites:** CHEM 320 (or CHEM 322R).

**Co-requisites:** BIOLOGY 202.

LS-BIOC 366 Human Biochemistry II Credits: 3  
The basic principles of human biochemistry for pharmacy students and other undergraduates presented in a two-term integrated unit. Topics will include the chemistry and mechanisms involved in biosynthesis, degradation and utilization of the major constituents of living systems and the biochemistry of specialized tissues, hormones, nutrition and regulation.  
**Prerequisites:** LS-BIOC 365, School of Pharmacy Student.

LS-BIOC 370 Pharmacy Biochemistry Credits: 4  
The chemistry and mechanisms involved in biosynthesis, degradation and utilization of the major constituents of living systems, and the biochemistry of specialized tissues, hormones, nutrition and regulation with a focus on application to clinical pharmacy practice.  
**Prerequisites:** Admission into the UMKC Pharm.D. program.
LS-BIOC 425 Bioinformatics Credits: 3
Study of the acquisition, storage, retrieval, analysis, modeling, and distribution of information in biomolecular databases. Recent developments in genomics and proteomics and how these databases are used in modern biological research will be emphasized.

Co-requisites: LS-BIOC 441.

LS-BIOC 430 Molecular Biology and Genetic Engineering Credits: 3
Molecular aspects of gene structure and function, including macromolecular synthesis, gene regulation, genetic transfer and biotechnology will be discussed in prokaryotes and eukaryotes.

Prerequisites: BIOLOGY 202, BIOLOGY 206.

Co-requisites: LS-BIOC 441.

LS-BIOC 441 Biochemistry Credits: 3
One semester course covering the properties of organic compounds important to biological systems. Structures, characterization and reactions of common compounds and their relationship to the building blocks of biological systems will be discussed.

Prerequisites: BIOLOGY 202, CHEM 320 (or CHEM 321).

Life Sciences - Cell Biology A Courses

LS-CBB 5501 Graduate Biophysical Principles Credits: 3
The focus of this course is on the theoretical principles underlying the biophysical methods used by a wide range of biological chemists. The approaches covered include thermodynamics, chemical kinetics, molecular interactions, transport properties, quantum mechanics, optical spectroscopy, and molecular structural approaches involving nuclear magnetic resonance spectroscopy, X-ray diffraction, and Mass spectrometry.

LS-CBB 5504 Gradute Virology Credits: 3
Survey of the molecular biology of animal, plant, and bacterial viruses. The course will emphasize the molecular mechanisms of virus replication, viral pathogenesis, and the use of virus as model systems to study mammalian cells.

LS-CBB 5505 Molecular and Cellular Neurobiology Credits: 3
The molecular basis of chemical and electrical communication between nerve cells. Topics will include: neurotransmitters, neuropeptides, receptors, channels, second messengers, cytoskeleton, cell adhesion, development, neuronal plasticity and psychopharmacology.


LS-CBB 5520 Cell and Molecular Biology II Credits: 3
A presentation of the cellular and subcellular organization and function of eukaryotic cells. Discussions will emphasize basic concepts by which structure and functions are integrated.


LS-CBB 5530 Cell and Molecular Biology I Credits: 3
Molecular aspects of gene structure and function in prokaryotic and eukaryotic organisms and their viruses. Emphasis in genome structure and organization and regulation of gene expression.

Co-requisites: LS-MBB 5561.

LS-CBB 5538 Molecular Recognition in Cellular Biology Credits: 2
Graduate Research Seminar. Studies of the latest development leading to an increased understanding of cellular biology processes when the experimental tools for structure biology analysis and molecular genetics are applied.

Co-requisites: LS-MBB 5561.

LS-CBB 5566 Membrane Biochemistry and Biophysics Credits: 3
Structure and function of biological membranes including architecture, dynamics, models, biochemical compartmentation, energy transduction, transport mechanisms, membrane protein structures, and cell surface receptors.


LS-CBB 5569 Structural Biology, Methods and Strategies Credits: 3
Analysis of strategies and methodologies such as X-ray crystallography, nuclear magnetic resonance and advanced microscopy procedures including imaging analysis for the study of relationships of higher order macromolecular structures to biological functions.

Prerequisites: LS-MBB 5561, LS-MBB 5562.

LS-CBB 5583 Current Topics in Cell Biology and Biophysics Credits: 1-3
Current topics and recent developments in cell biology and biophysics with emphasis on rapidly developing research areas.


LS-CBB 5591 Directed Individual Studies in Cell Biology and Biophysics Credits: 1-6
Intensive reading and/or research in an area selected by the graduate student in consultation with the instructor.

LS-CBB 5596 Advanced Experimental Cell Biology I Credits: 2
Structured laboratory work with individual tutorial sessions designed to familiarize first year Interdisciplinary Ph.D. students with concepts and techniques of modern cell biology research. 1-2 hr/wk tutorial and 15-20 hr/wk of laboratory work.

Co-requisites: LS-MBB 5561.

LS-CBB 5597 Advanced Experimental Cell Biology II Credits: 2
Continuation of LS-CBB 5596.


LS-CBB 5599 Thesis Research in Cell Biology and Biophysics Credits: 1-12
Research and thesis preparation for M.S. degree candidates.


LS-CBB 5612 Seminar in Cell Biology and Biophysics Credit: 1
Presentation and discussion of selected areas in cell biology and biophysics. This course may be repeated by doctoral students for a maximum of 3 credit hours.


LS-CBB 5690 Analytical Methods in Cell Biology and Biophysics Credits: 1-4
A course that emphasizes the development of skills in experimental design, analytical methods and instrumentation as applied to problems of interest to modern cell biology and biophysics, and analysis of results. Can be repeated up to a maximum of eight hours total.

Prerequisites: LS-MBB 5561, LS-MBB 5562.

LS-CBB 5699 Dissertation Research in Cell Biology and Biophysics Credits: 1-12
Research and dissertation preparation for interdisciplinary Ph.D. degree students who have Cell Biology and Biophysics as a discipline.


Life Sciences - Molecular Biol Courses
LS-MBB 5503 Eukaryotic Molecular Biology Credits: 3
Molecular aspects of gene structure and function in eukaryotic organisms and their viruses. Emphasis on genome structure and organization, gene expression and regulation and the molecular basis of growth and development.


LS-MBB 5509 Graduate Developmental Biology Credits: 3
Principles of development and differentiation of structure during embryology in animals. Molecular, cellular and organismal level concepts and mechanism will be considered.

LS-MBB 5510 Graduate Biochemistry for Nurse Anesthetists Credit: 1
This course will present the fundamentals of biochemistry necessary for the practice of nurse anesthesia, specifically, the structure and characteristics of biomolecules found in the cell, how molecules are metabolized to generate biochemical energy, and the basic mechanisms to regulate metabolic processes with regard to the nutritional state of the organism. The course is limited to graduate students in the nurse anesthetist program or in other disciplines where a fundamental understanding of biochemistry would be useful.

LS-MBB 5538 Molecular Recognition in Molecular Biology Credits: 2
Graduate Research Seminar. Analysis of the impact of most recent developments in molecular genetics and structural biology as related to fundamental molecular recognition events.

Co-requisites: LS-MBB 5561.

LS-MBB 5561 General Biochemistry I Credits: 3
The first semester of a two-semester sequence in general biochemistry. This course will emphasize the structure of biological molecules, thermodynamics and kinetics of biological reactions, and selected aspects of energy metabolism and metabolic pathways.

Prerequisites: CHEM 322R.

LS-MBB 5562 General Biochemistry II Credits: 3
The second semester of a two-semester sequence in general biochemistry. This course will emphasize selected aspects of the biochemistry of metabolism and macromolecular assemblies. The molecular basis of genetic and metabolic regulation will be discussed.

Prerequisites: LS-MBB 5561.

LS-MBB 5565 Structure And Function Of Proteins Credits: 3
This course will discuss structure-function relationships of proteins. Topics will include: methods of structure-function analysis, catalytic mechanisms, and regulation of enzyme activity.

LS-MBB 5567 Physical Biochemistry Credits: 3
Application of physical and chemical principles to elucidate structure and function of biochemical systems. The various modes of interactions between biologically important molecules and the specificity of their interaction will be examined through selected literature examples.

LS-MBB 5569 Current Topics in Molecular Biology and Biochemistry Credits: 1-3
Current topics and recent developments in biochemistry and molecular biology with emphasis on rapidly developing research areas.

LS-MBB 5591 Directed Individual Studies In Molecular Biology And Biochemistry Credits: 1-6
Intensive readings and/or research in an area selected by the graduate student in consultation with the instructor.

LS-MBB 5596 Advanced Experimental Molecular Biology I Credits: 2
Structured laboratory work with individual tutorial sessions designed to familiarize first year Interdisciplinary Ph.D. students with concepts and techniques of modern molecular biology research. 1-2 hr/wk tutorial and 15-20 hr/wk of laboratory work.
Co-requisites: LS-MBB 5561.

LS-MBB 5597 Advanced Experimental Molecular Biology II Credits: 2
Continuation of LS-MBB 5596.

LS-MBB 5599 Thesis Research in Molecular Biology and Biochemistry Credits: 1-12
Research and thesis preparation for M.S. degree candidates.

LS-MBB 5611 Seminar in Molecular Biology and Biochemistry Credit: 1
Presentation and discussion of selected areas in biochemistry and molecular biology. This course may be repeated by doctoral students for a maximum of 3 credit hours.

LS-MBB 5690 Analytical Methods in Molecular Biology and Biochemistry Credits: 1-4
A course that emphasizes the development of skills in experimental design, analytical methods and instrumentation as applied to problems of interest to modern molecular biology and biochemistry, and analysis of results. Can be repeated up to a maximum of eight hours total.
Prerequisites: LS-MBB 5561, LS-MBB 5562.

LS-MCRB 112 Microbiology and Living Credits: 3
Lectures and demonstrations concerning the cell structure, genetics and physiology of microorganisms and the role microorganisms play in the world around man with an emphasis on medical and clinical aspects of the significance of various groups of bacteria, viruses fungi and other microorganisms. This course is intended for nursing and other allied health students and for non-biology majors interested in life sciences and does not count toward Biology major requirements.

LS-MCRB 113 Introductory Microbiology Credits: 3
An introduction to microbiology with emphasis on infection and the basis of immunity. For non-majors only; does not count toward Biology degree requirements.

LS-MCRB 114L Introductory Microbiology Laboratory Credits: 2
Introductory laboratory studies in microbiology and infection to correlate with LS-MCRB 113. For non-majors only; does not count toward biology degree requirements.
Prerequisites: LS-MCRB 112 (or LS-MCRB 113).

LS-MCRB 121 Human Biology III (Microbiology) Credits: 3
Basic concepts of microbiology with emphasis on infectious diseases and host defenses.
Prerequisites: CHEM 211, LS-ANATO 219.

LS-MCRB 121L Human Biology III (Microbiology) Lab Credit: 1
Laboratory exercises demonstrating basic concepts of microbiology with emphasis on infectious diseases and host defenses.
Co-requisites: LS-MCRB 121.
LS-MCRB 313 Microbiology Credits: 3
Fundamental and applied aspects of microbial structure, metabolism, genetics and diversity. Experimental approaches to studying the microbial world will be emphasized.

**Prerequisites:** BIOLOGY 202, BIOLOGY 206.

**Co-requisites:** LS-BIOC 441.

LS-MCRB 313L Laboratory in Microbiology Credits: 3
General microbiological procedures plus advanced work in the areas of microbial physiology and genetics, pathogenic microbiology, virology, applied microbiology, and biotechnology.

**Co-requisites:** LS-BIOC 441, LS-MCRB 313.

LS-MCRB 313WL Laboratory in Microbiology Credits: 3
General microbiological procedures plus advanced work in the areas of microbial physiology and genetics, pathogenic microbiology, virology, applied microbiology, and biotechnology.

**Co-requisites:** LS-BIOC 441, LS-MCRB 313.

LS-MCRB 4180 Microbiology Credits: 4
Study of infectious diseases, their etiology, symptoms, prevention and treatment. Special emphasis is placed on plaque formation, caries development, periodontal and other oral diseases that relate to dentistry.

LS-MCRB 431 Virology Credits: 3
Survey of the molecular biology of animal, plant, and bacterial viruses. The course will emphasize the molecular mechanisms of virus replication, viral pathogenesis, and the use of virus as model systems to study mammalian cells.

**Prerequisites:** BIOLOGY 202, BIOLOGY 206.

**Co-requisites:** LS-BIOC 441 (or LS-BIOC 365).

LS-MCRB 435 Immunology Credits: 3
A study of the cellular and humoral aspects of the immune response, with emphasis upon the mechanisms involved and the relationship of this response to disease processes.

**Prerequisites:** LS-BIOC 441 (or LS-BIOC 366), LS-MCRB 121 (or LS-MCRB 313).

**Life Sciences - Physiology Courses**

LS-PHYS 217 Human Physiology Credits: 3
Introduction to body functions presented from an organ systems approach. For non-majors only.

**Prerequisites:** BIOLOGY 102 (or BIOLOGY 108 or BIOLOGY 109).

LS-PHYS 217 - MOTR LIFS 100: Essentials in Human Biology

LS-PHYS 3070 Oral Physiology Credits: 3
Concepts of general physiology will be discussed as they relate to the clinical practice of dental hygiene. Emphasis will be placed on the normal and abnormal physiology of oral structures, including such topics as neurophysiology, muscle function, salivation, and endocrinology.

LS-PHYS 316 Principles of Physiology Credits: 3
Physiological functions and processes of animals at the organ and organ systems levels, including concepts of integrated and homeostatic mechanisms. The relationship between organ function and underlying cellular mechanisms in vertebrates will be emphasized.

**Prerequisites:** BIOLOGY 202, BIOLOGY 206, LS-BIOC 441.

LS-PHYS 399 Pharmacy Physiology I Credits: 3
LSPHYS 399 is an introduction to integrated physiology of the human body, beginning with an emphasis on understanding the foundations of physiologic principles followed by an in depth study of the physiology of the nervous, endocrine, and muscle systems.

**Prerequisites:** BIOLOGY 202, CHEM 320.

LS-PHYS 400 Pharmacy Physiology II Credits: 3
LSPHYS 400 is a continuation into the study of integrated human physiology. Topics covered include the cardiovascular, respiratory, renal, digestive and reproductive systems.

**Prerequisites:** LS-PHYS 399.

LS-PHYS 401 Physiology Lecture Credits: 5
An integrated study of normal functions of various organ systems of the human body with special consideration of the physiology of the oral cavity and its related structures.
Medical Technology Courses
MED-TECH 999 Medical Technology Internship Credits: 15
Biological Sciences - Graduate Admissions

Admission to the school's graduate programs is competitive and students are encouraged to apply early. Applications are reviewed by an admissions committee that evaluates students on the basis of past performance and evidence of ability to pursue graduate studies successfully. The school admits students to its doctoral and master’s degree programs throughout the year; however, early application (by Feb. 15) is advised to receive consideration for assistantships and other financial support.

Information on admission to master’s or Ph.D. degree programs may be found at the Graduate Programs Web site at http://www.umkc.edu/sbs/graduate/, in the Graduate Academic Regulations and Information (p. 1189) section of this catalog, by e-mail to sbs-grad@umkc.edu, or by writing to our graduate programs office at the mailing address at the beginning of this section.

Graduate teaching assistantships, graduate research assistantships and fellowships are available through the school and are awarded on a competitive basis. Currently, all fully admitted, full-time doctoral students receive financial support.

To be eligible for admission to the School of Biological Sciences’ graduate programs, the applicant must:

- Possess a bachelor’s degree in biological sciences or a related field with a minimum of 120 credit hours, or possess an advanced degree in a health sciences field.
- Have an undergraduate GPA of at least 3.0.
- Have sufficient background coursework to undertake graduate studies in biological sciences.
- Have acceptable scores in the Graduate Record Examination aptitude tests.
- Submit three letters of recommendation from individuals familiar with the student’s academic performance and scientific abilities.

Students may be admitted with certain deficiencies, with the stipulation that these can be removed early in the course of study.
Bachelor of Science in Biology

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

- Identify fundamental concepts in the biological sciences, including the relationship between structure and function at all levels of biological organization, evolution and the role of natural selection in the process, ecological relationships between organisms and their environment.
- Describe cellular structure and explain the major biochemical processes that occur in cells.
- Describe and explain the mechanisms of heredity and the flow of genetic information.
- Apply knowledge in basic mathematics, chemistry, and physics to solve biological problems.
- Employ techniques and procedures commonly used in modern biology laboratories.
- Analyze and critically evaluate scientific data.
- Write clearly about topics in the biological sciences for a peer or professional audience.

The B.S. degree program is a rigorous curriculum designed for students interested in preparing for graduate studies or a professional school, or pursuing entry level employment in a science-related field.

Students interested in pursuing undergraduate degree programs offered by the School of Biological Sciences are admitted through the UMKC Office of Admissions (http://www.umkc.edu/admissions). Transfer and Readmitted students should contact the University admissions office and the School of Biological Sciences for information about transfer admissions and evaluation of transfer coursework. Transfer admission eligibility includes an overall grade-point average of at least 2.0 for all college-level coursework attempted at previous institutions, an overall GPA of at least 2.0 in courses used to fulfill School of Biological Sciences major requirements, and a University of Missouri Biology GPA of at least 2.0.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
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<td>3</td>
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<td>DISC 300</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied by the Constitution course requirement below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Focus Elective (Satisfied in program requirements below)

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

<table>
<thead>
<tr>
<th>Total Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
</tr>
</tbody>
</table>

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

### Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions."

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td>1</td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits

1. Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

### Major Requirements

#### Biology Course Requirements

The following core courses are required:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOLOGY 108</td>
<td>General Biology I (Focus B)</td>
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<tr>
<td>BIOLOGY 108L</td>
<td>General Biology I Laboratory</td>
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</tr>
<tr>
<td>BIOLOGY 109</td>
<td>General Biology II (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 109L</td>
<td>General Biology II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOLOGY 202</td>
<td>Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 206</td>
<td>Genetics</td>
<td>3</td>
</tr>
<tr>
<td>LS-BIOC 441</td>
<td>Biochemistry</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits

17

### Biology Lab Requirements

Two of the following laboratory courses are required. One of these courses must be a Writing Intensive (WI) course. The second may be taken using the non-WI option.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 302L</td>
<td>Ecology Laboratory</td>
<td>5</td>
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</tbody>
</table>

Select two of the following:
### Biology Synthesis requirement:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>BIOLOGY 498WI</td>
<td>Critical Analysis of Biological Issues (WI)</td>
<td>3</td>
</tr>
<tr>
<td>LIFE-SCI 499A</td>
<td>Undergraduate Research-Bioinformatics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499B</td>
<td>Undergraduate Research-Genetics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499C</td>
<td>Undergraduate Research-Microbiology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499D</td>
<td>Undergraduate Research-Physiology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499E</td>
<td>Undergraduate Research-Biochemistry</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499F</td>
<td>Undergraduate Research- Biophysics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499G</td>
<td>Undergraduate Research-Cell Biology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499H</td>
<td>Undergraduate Research-Neuroscience</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499I</td>
<td>Undergraduate Research-Botany</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499J</td>
<td>Undergraduate Research-Zoology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499K</td>
<td>Undergraduate Research-Ecology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499L</td>
<td>Undergraduate Research-Biological Sciences</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499M</td>
<td>Undergraduate Research-Biological Sciences Honors</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499P</td>
<td>Undergraduate Research-Biotechnology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497A</td>
<td>Directed Studies-Bioinformatics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497B</td>
<td>Directed Studies-Genetics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497C</td>
<td>Directed Studies-Microbiology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497D</td>
<td>Directed Studies-Physiology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497E</td>
<td>Directed Studies - Biochemistry</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497F</td>
<td>Directed Studies - Biophysics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497G</td>
<td>Directed Studies-Cell Biology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497H</td>
<td>Directed Studies - Neuroscience</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497I</td>
<td>Directed Studies-Botany</td>
<td></td>
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<tr>
<td>LIFE-SCI 497J</td>
<td>Directed Studies-Zoology</td>
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</tr>
<tr>
<td>LIFE-SCI 497K</td>
<td>Directed Studies - Ecology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497L</td>
<td>Directed Studies - Biological Sciences</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497P</td>
<td>Directed Studies - Biotechnology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497BB</td>
<td>Directed Studies: Behavioral Biology</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits:** 3

Students must complete additional biology majors coursework for a total of 42 credit hours of biology courses with grades of C- or better. 26 of these hours must be 300- or 400-level. A minimum of 21 credit hours of biology courses must be taken from the School of Biological Sciences. The UM Biology GPA Must be at least 2.0.

### Additional Biology Coursework Options

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 201</td>
<td>Preparing for Careers in Biology</td>
<td>17</td>
</tr>
<tr>
<td>BIOLOGY 302</td>
<td>General Ecology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 303</td>
<td>Invertebrate Zoology</td>
<td></td>
</tr>
</tbody>
</table>
BIOLOGY 305  Marine and Freshwater Biology
BIOLOGY 308  Vertebrate Zoology
BIOLOGY 314  Entomology
BIOLOGY 319  Global Health: New and Emerging Infectious Diseases
BIOLOGY 322  General Parasitology
BIOLOGY 326  Biological Conservation
BIOLOGY 327  Biogeography and Biodiversity
BIOLOGY 328  Histology
BIOLOGY 329  Endocrinology
BIOLOGY 346  Plant Biology
BIOLOGY 350  Assisting Undergraduate Learning in Biology
BIOLOGY 385  Special Topics

Physical Sciences and Mathematics Course Requirements

The following courses must be completed with grades of C- or better.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 120</td>
<td>Precalculus</td>
<td>5</td>
</tr>
<tr>
<td>MATH 216</td>
<td>Calculus for Biological Sciences</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 210</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>3-4</td>
</tr>
<tr>
<td>MATH 226</td>
<td>Biomath II: Statistics and Modeling</td>
<td></td>
</tr>
<tr>
<td>MATH 220</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>STAT 235</td>
<td>Elementary Statistics</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 210</td>
<td>General Physics I</td>
<td>4-5</td>
</tr>
<tr>
<td>or PHYSICS 240</td>
<td>Physics For Scientists and Engineers I</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 220</td>
<td>General Physics II</td>
<td>4</td>
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<tr>
<td>or PHYSICS 250</td>
<td>Physics For Scientists and Engineers II</td>
<td></td>
</tr>
<tr>
<td>CHEM 211</td>
<td>General Chemistry I</td>
<td>4</td>
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<tr>
<td>CHEM 211L</td>
<td>Experimental General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 212R</td>
<td>General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 212LR</td>
<td>Experimental General Chemistry II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 321</td>
<td>Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 321L</td>
<td>Organic Chemistry Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 322R</td>
<td>Organic Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 322L</td>
<td>Organic Chemistry Laboratory II</td>
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<tr>
<td>Total Credits</td>
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<td>38-40</td>
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</table>

1 Students may choose LIFE-SCI 401 as an alternative to PHYSICS 250.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

A maximum of 12 hours for a combination of 399, 497, and 499 coursework may be applied toward with major with only 4 credit hours at the 400-level.

Minimum GPA: 2.0 (UM cumulative; UM Biology)

Total Credit Hours: 120
Tools for Planning and Fulfilling Academic Requirements

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major "fit". In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student's officially recorded (Office of Registration and Records) and "what if" plans of study. This evaluation is used to certify all graduation requirements.

UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Science in Biology Bioinformatics Emphasis

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

• Identify fundamental concepts in the biological sciences, including the relationship between structure and function at all levels of biological organization, evolution and the role of natural selection in the process, ecological relationships between organisms and their environment.
• Describe cellular structure and explain the major biochemical processes that occur in cells.
• Describe and explain the mechanisms of heredity and the flow of genetic information.
• Apply knowledge in basic mathematics, chemistry, and physics to solve biological problems.
• Employ techniques and procedures commonly used in modern biology laboratories.
• Analyze and critically evaluate scientific data.
• Write clearly about topics in the biological sciences for a peer or professional audience.

Students interested in pursuing undergraduate degree programs offered by the School of Biological Sciences are admitted through the UMKC Office of Admissions (http://www.umkc.edu/admissions). Transfer or Readmitted students should contact the University admissions office and the School of Biological Sciences for information about transfer admissions and evaluation of transfer coursework. Transfer admission eligibility includes an overall grade-point average of at least 2.0 for all college-level coursework attempted at previous institutions, an overall GPA of at least 2.0 in courses used to fulfill School of Biological Sciences major requirements, and a University of Missouri Biology GPA of at least 2.0.

Program Requirements
This instructional program incorporates courses from biology, computer science and mathematics. Students will obtain skills for the analysis of complex data, extraction of information from genomic and proteomic databases, and the design and development of software and algorithms to support these activities.

The curriculum of UMKC General Education Core (http://www.umkc.edu/core) and biology majors courses, combined with the mathematics, chemistry and physics components is designed to provide undergraduate students with a clear program for the undergraduate background needed for a career in bioinformatics or to provide them with a solid, biologically oriented curriculum to pursue graduate level research in this area.

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
</tbody>
</table>
DISC 300  Discourse III: Civic and Community Engagement (Speech and Writing)  3
Focus A  3
Focus B (Satisfied in program requirements below)
Focus C (May be satisfied by the Constitution course requirement below)
Focus Elective (Satisfied in program requirements below)

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits  21

1  See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions."

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) 1</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits  3

1  Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelor's degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

Major Requirements

Biology course requirements

The following core courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOLOGY 108</td>
<td>General Biology I (Focus B)</td>
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<tr>
<td>BIOLOGY 108L</td>
<td>General Biology I Laboratory</td>
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</tr>
<tr>
<td>BIOLOGY 109</td>
<td>General Biology II (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 109L</td>
<td>General Biology II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOLOGY 202</td>
<td>Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 206</td>
<td>Genetics</td>
<td>3</td>
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<tr>
<td>LS-BIOC 441</td>
<td>Biochemistry</td>
<td>3</td>
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</table>

Total Credits  17

Emphasis course requirements:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 405</td>
<td>Introduction to Evolution</td>
<td>3</td>
</tr>
</tbody>
</table>
Bachelor of Science in Biology Bioinformatics Emphasis

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS-BIOC 360WL</td>
<td>Laboratory in Biochemistry and Molecular Biology</td>
<td>3</td>
</tr>
<tr>
<td>LS-BIOC 425</td>
<td>Bioinformatics</td>
<td>3</td>
</tr>
<tr>
<td>LS-BIOC 430</td>
<td>Molecular Biology and Genetic Engineering</td>
<td>3</td>
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<tr>
<td></td>
<td>Total Credits</td>
<td>12</td>
</tr>
</tbody>
</table>

**Biology laboratory courses:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select one of the following:</td>
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<td></td>
</tr>
<tr>
<td>BIOLOGY 302L</td>
<td>Ecology Laboratory</td>
<td>2</td>
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<tr>
<td>BIOLOGY 312WL</td>
<td>Laboratory in Developmental Biology, Genetics and Cell Biology (WI)</td>
<td></td>
</tr>
<tr>
<td>LS-MCRB 313WL</td>
<td>Laboratory in Microbiology (WI)</td>
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</tr>
<tr>
<td>or LS-MCRB 313L</td>
<td>Laboratory in Microbiology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 328WL</td>
<td>Laboratory in Histology and Cellular Ultrastructure (WI)</td>
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</tr>
<tr>
<td>or BIOLOGY 328L</td>
<td>Laboratory in Histology and Cellular Ultrastructure</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 338L</td>
<td>Comparative Vertebrate Anatomy Laboratory</td>
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<tr>
<td>LS-ANATO 218L</td>
<td>Introductory Anatomy Laboratory</td>
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<tr>
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</table>

**Biology Synthesis requirement:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select from the following for a total of three credit hours:</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 498WI</td>
<td>Critical Analysis of Biological Issues (WI)</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497A</td>
<td>Directed Studies-Bioinformatics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497B</td>
<td>Directed Studies-Genetics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497BB</td>
<td>Directed Studies: Behavioral Biology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497C</td>
<td>Directed Studies-Microbiology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497D</td>
<td>Directed Studies-Physiology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497E</td>
<td>Directed Studies - Biochemistry</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497F</td>
<td>Directed Studies - Biophysics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497G</td>
<td>Directed Studies-Cell Biology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497H</td>
<td>Directed Studies - Neuroscience</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497I</td>
<td>Directed Studies-Botany</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497J</td>
<td>Directed Studies-Zoology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497K</td>
<td>Directed Studies - Ecology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497L</td>
<td>Directed Studies - Biological Sciences</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497P</td>
<td>Directed Studies - Biotechnology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499A</td>
<td>Undergraduate Research-Bioinformatics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499B</td>
<td>Undergraduate Research-Genetics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499C</td>
<td>Undergraduate Research-Microbiology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499D</td>
<td>Undergraduate Research-Physiology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499E</td>
<td>Undergraduate Research-Biochemistry</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499F</td>
<td>Undergraduate Research- Biophysics</td>
<td></td>
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<tr>
<td>LIFE-SCI 499G</td>
<td>Undergraduate Research-Cell Biology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499H</td>
<td>Undergraduate Research-Neuroscience</td>
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<tr>
<td>LIFE-SCI 499I</td>
<td>Undergraduate Research-Botany</td>
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</tr>
<tr>
<td>LIFE-SCI 499J</td>
<td>Undergraduate Research-Zoology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499K</td>
<td>Undergraduate Research-Ecology</td>
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</tr>
<tr>
<td>LIFE-SCI 499L</td>
<td>Undergraduate Research-Biological Sciences</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499M</td>
<td>Undergraduate Research-Biological Sciences Honors</td>
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</tr>
<tr>
<td>LIFE-SCI 499P</td>
<td>Undergraduate Research-Biotechnology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td>3</td>
</tr>
</tbody>
</table>
Students must complete additional biology majors coursework for a total of 42 credit hours of biology courses with grades of C- or better. At least 26 of these must be at the 300- or 400-level. A minimum of 21 credit hours of biology courses must be taken from the School of Biological Sciences. The UM Biology GPA must be 2.0 or higher.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 201</td>
<td>Preparing for Careers in Biology</td>
<td>8</td>
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<tr>
<td>BIOLOGY 302</td>
<td>General Ecology</td>
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<tr>
<td>BIOLOGY 303</td>
<td>Invertebrate Zoology</td>
<td></td>
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<tr>
<td>BIOLOGY 305</td>
<td>Marine and Freshwater Biology</td>
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<tr>
<td>BIOLOGY 308</td>
<td>Vertebrate Zoology</td>
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<tr>
<td>BIOLOGY 314</td>
<td>Entomology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 319</td>
<td>Global Health: New and Emerging Infectious Diseases</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 322</td>
<td>General Parasitology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 326</td>
<td>Biological Conservation</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 327</td>
<td>Biogeography and Biodiversity</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 328</td>
<td>Histology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 329</td>
<td>Endocrinology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 346</td>
<td>Plant Biology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 350</td>
<td>Assisting Undergraduate Learning in Biology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 385</td>
<td>Special Topics</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 405</td>
<td>Introduction to Evolution</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 409</td>
<td>Developmental Biology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 442</td>
<td>Neurobiology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 445</td>
<td>Evolutionary Ecology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 485</td>
<td>Special Topics</td>
<td></td>
</tr>
</tbody>
</table>

**Physical sciences and mathematics requirements:**
All of the following courses are required. A grade of C- or better is required in each course used to fulfill these requirements.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP-SCI 101</td>
<td>Problem Solving and Programming I</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 191</td>
<td>Discrete Structures I</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 201R</td>
<td>Problem Solving and Programming II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Precalculus</td>
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<tr>
<td>MATH 210</td>
<td>Calculus I</td>
<td>4</td>
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<tr>
<td>or MATH 216</td>
<td>Calculus for Biological Sciences</td>
<td></td>
</tr>
<tr>
<td>MATH 220</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>STAT 235</td>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 226</td>
<td>Biomath II: Statistics and Modeling</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 210</td>
<td>General Physics I</td>
<td>4-5</td>
</tr>
<tr>
<td>or PHYSICS 240</td>
<td>Physics For Scientists and Engineers I</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 220</td>
<td>General Physics II</td>
<td>4-5</td>
</tr>
<tr>
<td>or PHYSICS 250</td>
<td>Physics For Scientists and Engineers II</td>
<td></td>
</tr>
<tr>
<td>CHEM 211</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 211L</td>
<td>Experimental General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 212R</td>
<td>General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 212LR</td>
<td>Experimental General Chemistry II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 321</td>
<td>Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 321L</td>
<td>Organic Chemistry Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 322R</td>
<td>Organic Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 322L</td>
<td>Organic Chemistry Laboratory II</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 51-53
1 Students may choose LIFE-SCI 401, as an alternative to PHYSICS 250.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>3</td>
</tr>
</tbody>
</table>

A minimum of 120 credit hours is required; and 36 of these must be at the junior/senior level. Electives may be taken from any area once other degree requirements have been met.

A maximum of 12 hours for a combination of 399, 497, and 499 coursework may be applied toward with major with only 4 credit hours at the 400-level.

Minimum GPA: 2.0 (UM cumulative; UM Biology)

Total Credit Hours: 120

**Tools for Planning and Fulfilling Academic Requirements**

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

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Bachelor of Science in Biology, Biomedical Sciences Emphasis

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

- Identify fundamental concepts in the biological sciences, including the relationship between structure and function at all levels of biological organization, evolution and the role of natural selection in the process, ecological relationships between organisms and their environment.
- Describe cellular structure and explain the major biochemical processes that occur in cells.
- Describe and explain the mechanisms of heredity and the flow of genetic information.
- Apply knowledge in basic mathematics, chemistry, and physics to solve biological problems.
- Employ techniques and procedures commonly used in modern biology laboratories.
- Analyze and critically evaluate scientific data.
- Write clearly about topics in the biological sciences for a peer or professional audience.

Students interested in pursuing undergraduate degree programs offered by the School of Biological Sciences are admitted through the UMKC Office of Admissions (http://www.umkc.edu/admissions). Transfer or Readmitted students should contact the University admissions office and the School of Biological Sciences for information about transfer admissions and evaluation of transfer coursework. Transfer admission eligibility includes an overall grade-point average of at least 2.0 for all college-level coursework attempted at previous institutions, an overall GPA of at least 2.0 in courses used to fulfill School of Biological Sciences major requirements, and a University of Missouri Biology GPA of at least 2.0.

Program Requirements

The B.S. Biology, Biomedical Sciences Emphasis is designed to prepare highly motivated students for entrance into medical school, dental school, physician assistant programs, anesthesia assistant programs, and other graduate or professional programs in the life and health sciences. Entrance into the emphasis is competitive. Students seeking the B.S. in Biology may apply for admission to the Biomedical Sciences Emphasis during the Spring semester of their sophomore year. Please contact the Undergraduate Programs Office in the School of Biological Sciences at (816) 235-2580 for more information.

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I ¹</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II ¹</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III ¹</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
</tbody>
</table>
Focus A
Focus B (Satisfied in program requirements below)
Focus C (May be satisfied by the Constitution course requirement below)
Focus Elective (Satisfied in program requirements below)
'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 21

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement
Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions."

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

Major Requirements
In addition to the UMKC General Education Core (http://www.umkc.edu/core) requirements, students pursuing the B.S. Biology, Biomedical Sciences Emphasis must meet the following requirements:

Biology course requirements. The following core courses (17 credit hours)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOLOGY 108</td>
<td>General Biology I (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 108L</td>
<td>General Biology I Laboratory</td>
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</tr>
<tr>
<td>BIOLOGY 109</td>
<td>General Biology II (Focus B)</td>
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</tr>
<tr>
<td>BIOLOGY 109L</td>
<td>General Biology II Laboratory</td>
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<tr>
<td>BIOLOGY 202</td>
<td>Cell Biology</td>
<td>3</td>
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<tr>
<td>BIOLOGY 206</td>
<td>Genetics</td>
<td>3</td>
</tr>
<tr>
<td>LS-BIOC 441</td>
<td>Biochemistry</td>
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</table>

Total Credits 17

Emphasis course requirements

<table>
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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>LS-ANATO 218</td>
<td>Introductory Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>Code</td>
<td>Title</td>
<td>Credits</td>
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<tr>
<td>--------------</td>
<td>------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>LS-ANATO 218L</td>
<td>Introductory Anatomy Laboratory</td>
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<tr>
<td>LS-MCRB 313</td>
<td>Microbiology</td>
<td>3</td>
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<tr>
<td>LS-MCRB 313WL</td>
<td>Laboratory in Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>LS-PHYS 316</td>
<td>Principles of Physiology</td>
<td>3</td>
</tr>
<tr>
<td>LIFE-SCI 310</td>
<td>Fundamentals of Medicine I</td>
<td>2</td>
</tr>
<tr>
<td>LIFE-SCI 320</td>
<td>Fundamentals of Medicine II</td>
<td>2</td>
</tr>
<tr>
<td>LIFE-SCI 330</td>
<td>Fundamentals of Medicine III</td>
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<tr>
<td>LIFE-SCI 340</td>
<td>Fundamentals of Medicine IV</td>
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<tr>
<td>LIFE-SCI 201</td>
<td>Healthcare Professions Seminar</td>
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<tr>
<td>LIFE-SCI 202</td>
<td>Preparing for Careers in Healthcare</td>
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<tr>
<td>MEDICINE 9115</td>
<td>Medical Terminology</td>
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<td></td>
<td>Total Credits</td>
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**Biology Synthesis requirement** (Choose a total of 3 credit hours)

<table>
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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>BIOLOGY 498WI</td>
<td>Critical Analysis of Biological Issues</td>
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</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIFE-SCI 499A</td>
<td>Undergraduate Research-Bioinformatics</td>
</tr>
<tr>
<td>or LIFE-SCI 499B</td>
<td>Undergraduate Research-Genetics</td>
</tr>
<tr>
<td>or LIFE-SCI 499C</td>
<td>Undergraduate Research-Microbiology</td>
</tr>
<tr>
<td>or LIFE-SCI 499D</td>
<td>Undergraduate Research-Physiology</td>
</tr>
<tr>
<td>or LIFE-SCI 499E</td>
<td>Undergraduate Research-Biochemistry</td>
</tr>
<tr>
<td>or LIFE-SCI 499F</td>
<td>Undergraduate Research-Biophysics</td>
</tr>
<tr>
<td>or LIFE-SCI 499G</td>
<td>Undergraduate Research-Cell Biology</td>
</tr>
<tr>
<td>or LIFE-SCI 499H</td>
<td>Undergraduate Research-Neuroscience</td>
</tr>
<tr>
<td>or LIFE-SCI 499I</td>
<td>Undergraduate Research-Botany</td>
</tr>
<tr>
<td>or LIFE-SCI 499J</td>
<td>Undergraduate Research-Zoology</td>
</tr>
<tr>
<td>or LIFE-SCI 499K</td>
<td>Undergraduate Research-Ecology</td>
</tr>
<tr>
<td>or LIFE-SCI 499L</td>
<td>Undergraduate Research-Biological Sciences</td>
</tr>
<tr>
<td>or LIFE-SCI 499M</td>
<td>Undergraduate Research-Biological Sciences Honors</td>
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<tr>
<td>or LIFE-SCI 499P</td>
<td>Undergraduate Research-Biotechnology</td>
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<tr>
<td>LIFE-SCI 497A</td>
<td>Directed Studies-Bioinformatics</td>
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<tr>
<td>or LIFE-SCI 497B</td>
<td>Directed Studies-Genetics</td>
</tr>
<tr>
<td>or LIFE-SCI 497BB</td>
<td>Directed Studies: Behavioral Biology</td>
</tr>
<tr>
<td>or LIFE-SCI 497C</td>
<td>Directed Studies-Microbiology</td>
</tr>
<tr>
<td>or LIFE-SCI 497D</td>
<td>Directed Studies-Physiology</td>
</tr>
<tr>
<td>or LIFE-SCI 497E</td>
<td>Directed Studies - Biochemistry</td>
</tr>
<tr>
<td>or LIFE-SCI 497F</td>
<td>Directed Studies - Biophysics</td>
</tr>
<tr>
<td>or LIFE-SCI 497G</td>
<td>Directed Studies-Cell Biology</td>
</tr>
<tr>
<td>or LIFE-SCI 497H</td>
<td>Directed Studies - Neuroscience</td>
</tr>
<tr>
<td>or LIFE-SCI 497I</td>
<td>Directed Studies-Botany</td>
</tr>
<tr>
<td>or LIFE-SCI 497J</td>
<td>Directed Studies-Zoology</td>
</tr>
<tr>
<td>or LIFE-SCI 497K</td>
<td>Directed Studies - Ecology</td>
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<tr>
<td>or LIFE-SCI 497L</td>
<td>Directed Studies - Biological Sciences</td>
</tr>
<tr>
<td>or LIFE-SCI 497P</td>
<td>Directed Studies - Biotechnology</td>
</tr>
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</table>

**Total Credits** 3

**Physical Sciences and Mathematics Course Requirements.** The following courses must be completed with grades of C- or better.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MATH 120</td>
<td>Precalculus</td>
<td>5</td>
</tr>
<tr>
<td>MATH 216</td>
<td>Calculus for Biological Sciences</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 210</td>
<td>Calculus I</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits** 25
Bachelor of Science in Biology, Biomedical Sciences Emphasis

MATH 226  Biomath II: Statistics and Modeling  3
   or MATH 220  Calculus II
   or STAT 235  Elementary Statistics

PHYSICS 210  General Physics I  4
   or PHYSICS 240  Physics For Scientists and Engineers I

PHYSICS 220  General Physics II  4
   or PHYSICS 250  Physics For Scientists and Engineers II

CHEM 211  General Chemistry I  4
CHEM 211L  Experimental General Chemistry I  1
CHEM 212R  General Chemistry II  4
CHEM 212LR  Experimental General Chemistry II  1

CHEM 321  Organic Chemistry I  3
CHEM 321L  Organic Chemistry Laboratory I  1
CHEM 322R  Organic Chemistry II  3
CHEM 322L  Organic Chemistry Laboratory II  1

Total Credits  38

Students may choose LIFE-SCI 401 Biophysical Principles as an alternative to PHYSICS 250. A minimum of 120 credit hours is required; and 36 of these must be at the junior/senior level. Electives may be taken from any area once other degree requirements have been met.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>13</td>
</tr>
</tbody>
</table>

A maximum of 12 hours for a combination of 399, 497, and 499 coursework may be applied toward with major with only 4 credit hours at the 400-level.

Minimum GPA: 2.0 *(UM cumulative; UM Biology)*

Total Hours: 120

**Tools for Planning and Fulfilling Academic Requirements**

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

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Student Learning Outcomes
Students graduating from this program will:

- Identify fundamental concepts in the biological sciences, including the relationship between structure and function at all levels of biological organization, evolution and the role of natural selection in the process, ecological relationships between organisms and their environment.
- Describe cellular structure and explain the major biochemical processes that occur in cells.
- Describe and explain the mechanisms of heredity and the flow of genetic information.
- Apply knowledge in basic mathematics, chemistry, and physics to solve biological problems.
- Employ techniques and procedures commonly used in modern biology laboratories.
- Analyze and critically evaluate scientific data.
- Write clearly about topics in the biological sciences for a peer or professional audience.

Program Requirements
The curriculum of UMKC General Education Core (http://www.umkc.edu/core) and biology majors courses, combined with the mathematics, chemistry and physics components is designed to provide undergraduate students with a clear program for the undergraduate background needed for a career in biotechnology or to provide them with a solid, biologically oriented curriculum to pursue graduate level research in this area.

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Focus C (May be satisfied by the Constitution course requirement below)

Focus Elective (Satisfied in program requirements below)

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

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<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

Major Requirements

Biology course requirements

Core courses:

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 108</td>
<td>General Biology I (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 108L</td>
<td>General Biology I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOLOGY 109</td>
<td>General Biology II (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 109L</td>
<td>General Biology II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOLOGY 202</td>
<td>Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 206</td>
<td>Genetics</td>
<td>3</td>
</tr>
<tr>
<td>LS-BIOC 441</td>
<td>Biochemistry</td>
<td>3</td>
</tr>
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</table>

Total Credits 17

Emphasis course requirements:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 409</td>
<td>Developmental Biology</td>
<td>3</td>
</tr>
<tr>
<td>LS-MCRB 313</td>
<td>Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>LS-BIOC 425</td>
<td>Bioinformatics</td>
<td>3</td>
</tr>
</tbody>
</table>
**Laboratory course requirements (9 credit hours; 6 of these must be WI):**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS-MCRB 313L</td>
<td>Laboratory in Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>or LS-MCRB 313WL</td>
<td>Laboratory in Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 312WL</td>
<td>Laboratory in Developmental Biology, Genetics and Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>LS-BIOC 360L</td>
<td>Laboratory in Biochemistry and Molecular Biology</td>
<td>3</td>
</tr>
<tr>
<td>or LS-BIOC 360WL</td>
<td>Laboratory in Biochemistry and Molecular Biology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Biology synthesis requirement:**

Select from the following for a total of three credit hours:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 498WI</td>
<td>Critical Analysis of Biological Issues (WI)</td>
<td>3</td>
</tr>
<tr>
<td>LIFE-SCI 497A</td>
<td>Directed Studies-Bioinformatics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497B</td>
<td>Directed Studies-Genetics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497BB</td>
<td>Directed Studies: Behavioral Biology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497C</td>
<td>Directed Studies-Microbiology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497D</td>
<td>Directed Studies-Physiology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497E</td>
<td>Directed Studies - Biochemistry</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497F</td>
<td>Directed Studies - Biophysics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497G</td>
<td>Directed Studies-Cell Biology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497H</td>
<td>Directed Studies - Neuroscience</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497I</td>
<td>Directed Studies-Botany</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497J</td>
<td>Directed Studies-Zoology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497K</td>
<td>Directed Studies - Ecology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497L</td>
<td>Directed Studies - Biological Sciences</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497P</td>
<td>Directed Studies - Biotechnology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499A</td>
<td>Undergraduate Research-Bioinformatics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499B</td>
<td>Undergraduate Research-Genetics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499C</td>
<td>Undergraduate Research-Microbiology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499D</td>
<td>Undergraduate Research-Physiology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499E</td>
<td>Undergraduate Research-Biochemistry</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499F</td>
<td>Undergraduate Research- Biophysics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499G</td>
<td>Undergraduate Research-Cell Biology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499H</td>
<td>Undergraduate Research-Neuroscience</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499I</td>
<td>Undergraduate Research-Botany</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499J</td>
<td>Undergraduate Research-Zoology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499K</td>
<td>Undergraduate Research-Ecology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499L</td>
<td>Undergraduate Research-Biological Sciences Honors</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499M</td>
<td>Undergraduate Research-Biological Sciences Honors</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499P</td>
<td>Undergraduate Research-Biotechnology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 5899</td>
<td>Required Graduate Enrollment</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits**

Students must complete additional biology majors coursework to total at least 42 credit hours of biology courses with grades of C- or better. At least 26 of these must be at the 300- or 400-level. A minimum of 21 credit hours of biology courses must be taken from the School of Biological Sciences. The UM Biology GPA must be at least 2.0.
Physical sciences and mathematics requirements
All of the following courses are required. A grade of C- or better is required in each course used to fulfill these requirements.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP-SCI 101</td>
<td>Problem Solving and Programming I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Precalculus</td>
<td>5</td>
</tr>
<tr>
<td>MATH 210</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 216</td>
<td>Calculus for Biological Sciences</td>
<td></td>
</tr>
<tr>
<td>MATH 220</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>STAT 235</td>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 226</td>
<td>Biomath II: Statistics and Modeling</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 210</td>
<td>General Physics I</td>
<td>4-5</td>
</tr>
<tr>
<td>or PHYSICS 240</td>
<td>Physics For Scientists and Engineers I</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 220</td>
<td>General Physics II</td>
<td>4-5</td>
</tr>
<tr>
<td>or PHYSICS 250</td>
<td>Physics For Scientists and Engineers II</td>
<td></td>
</tr>
<tr>
<td>CHEM 211</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 211L</td>
<td>Experimental General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 212R</td>
<td>General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 212LR</td>
<td>Experimental General Chemistry II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 321</td>
<td>Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 321L</td>
<td>Organic Chemistry Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 322R</td>
<td>Organic Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 322L</td>
<td>Organic Chemistry Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>45-47</td>
</tr>
</tbody>
</table>

1 Students may choose LIFE-SCI 401, as an alternative to PHYSICS 250.

A minimum of 120 credit hours is required, and 36 of these must be at the 300- or 400-level. Electives may be taken from any area once other degree requirements have been met. The UM Biology GPA must be 2.0 or higher.

A maximum of 12 hours for a combination of 399, 497, and 499 coursework may be applied toward with major with only 4 credit hours at the 400-level.

Minimum GPA: 2.0 (UM cumulative; UM Biology)

Total Credit Hours: 120

Tools for Planning and Fulfilling Academic Requirements
UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Science in Biology Cellular and Molecular Basis of Health and Disease Emphasis

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

- Identify fundamental concepts in the biological sciences, including the relationship between structure and function at all levels of biological organization, evolution and the role of natural selection in the process, ecological relationships between organisms and their environment.
- Describe cellular structure and explain the major biochemical processes that occur in cells.
- Describe and explain the mechanisms of heredity and the flow of genetic information.
- Apply knowledge in basic mathematics, chemistry, and physics to solve biological problems.
- Employ techniques and procedures commonly used in modern biology laboratories.
- Analyze and critically evaluate scientific data.
- Write clearly about topics in the biological sciences for a peer or professional audience.

Students interested in pursuing undergraduate degree programs offered by the School of Biological Sciences are admitted through the UMKC Office of Admissions (http://www.umkc.edu/admissions). Transfer or Readmitted students should contact the University admissions office and the School of Biological Sciences for information about transfer admissions and evaluation of transfer coursework. Transfer admission eligibility includes an overall grade-point average of at least 2.0 for all college-level coursework attempted at previous institutions, an overall GPA of at least 2.0 in courses used to fulfill School of Biological Sciences major requirements, and a University of Missouri Biology GPA of at least 2.0.

Program Requirements

This instructional program fully prepares individuals for admission to a professional school in medicine, including allopathic, osteopathic or podiatric medicine programs. By completing the requirements of the bachelor’s of science in biology with the cellular and molecular basis of health and disease emphasis, students will complete all of the minimum prerequisites and the upper level biology electives which are highly recommended by most medical schools.

The courses selected provide a foundation of knowledge in modern cellular and molecular biology, essential for understanding medical science. The curriculum of general education and biology majors courses, combined with the mathematics, chemistry and physics components, provides the background essential to understanding the latest diagnostic and treatment technologies.

UMKC General Education Core (http://www.umkc.edu/core) requirements are the same as for all students seeking a bachelor's degree in biology. Completion of the emphasis requirements will be noted on the UMKC transcript. Through proper planning with a School of Biological Sciences advisor, biology majors can use their electives and general education requirements to complete the healing and humanities minor.
Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I 1</td>
<td></td>
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</tr>
<tr>
<td>Anchor II 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III 1</td>
<td></td>
<td>3</td>
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<tr>
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</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A 1</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Focus B (Satisfied in program requirements below)

Focus C (May be satisfied by the Constitution course requirement below)

Focus Elective (Satisfied in program requirements below)

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

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<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
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</tr>
<tr>
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<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) 1</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

Major Requirements

Biology course requirements

Core courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 108</td>
<td>General Biology I (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 108L</td>
<td>General Biology I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOLOGY 109</td>
<td>General Biology II (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 109L</td>
<td>General Biology II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOLOGY 202</td>
<td>Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>Code</td>
<td>Title</td>
<td>Credits</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>BIOLOGY 206</td>
<td>Genetics</td>
<td>3</td>
</tr>
<tr>
<td>LS-BIOC 341</td>
<td>Basic Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

**Emphasis course requirements:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 409</td>
<td>Developmental Biology</td>
<td>3</td>
</tr>
<tr>
<td>LS-BIOC 430</td>
<td>Molecular Biology and Genetic Engineering</td>
<td>3</td>
</tr>
<tr>
<td>LS-MCRB 313</td>
<td>Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>LS-MCRB 313WL</td>
<td>Laboratory in Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>LS-MCRB 431</td>
<td>Virology</td>
<td>3</td>
</tr>
<tr>
<td>or LS-MCRB 435</td>
<td>Immunology</td>
<td></td>
</tr>
<tr>
<td>LS-PHYS 316</td>
<td>Principles of Physiology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>18</strong></td>
</tr>
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</table>

**Laboratory course requirements:**

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>BIOLOGY 312WL</td>
<td>Laboratory in Developmental Biology, Genetics and Cell Biology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 328L</td>
<td>Laboratory in Histology and Cellular Ultrastructure</td>
<td></td>
</tr>
<tr>
<td>or BIOLOGY 328WL</td>
<td>Laboratory in Histology and Cellular Ultrastructure</td>
<td></td>
</tr>
<tr>
<td>LS-ANATO 218L</td>
<td>Introductory Anatomy Laboratory</td>
<td></td>
</tr>
<tr>
<td>LS-BIOC 360L</td>
<td>Laboratory in Biochemistry and Molecular Biology</td>
<td></td>
</tr>
<tr>
<td>or LS-BIOC 360WL</td>
<td>Laboratory in Biochemistry and Molecular Biology</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>2</strong></td>
</tr>
</tbody>
</table>

**Biology Synthesis requirement:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select from the following to total three credit hours:</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 498WI</td>
<td>Critical Analysis of Biological Issues</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497A</td>
<td>Directed Studies-Bioinformatics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497B</td>
<td>Directed Studies-Genetics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497BB</td>
<td>Directed Studies: Behavioral Biology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497C</td>
<td>Directed Studies-Microbiology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497D</td>
<td>Directed Studies-Physiology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497E</td>
<td>Directed Studies - Biochemistry</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497F</td>
<td>Directed Studies - Biophysics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497G</td>
<td>Directed Studies-Cell Biology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497H</td>
<td>Directed Studies - Neuroscience</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497I</td>
<td>Directed Studies-Botany</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497J</td>
<td>Directed Studies-Zoology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497K</td>
<td>Directed Studies - Ecology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497L</td>
<td>Directed Studies - Biological Sciences</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497P</td>
<td>Directed Studies - Biotechnology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499A</td>
<td>Undergraduate Research-Bioinformatics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499B</td>
<td>Undergraduate Research-Genetics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499C</td>
<td>Undergraduate Research-Microbiology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499D</td>
<td>Undergraduate Research-Physiology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499E</td>
<td>Undergraduate Research-Biochemistry</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499F</td>
<td>Undergraduate Research- Biophysics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499G</td>
<td>Undergraduate Research-Cell Biology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499H</td>
<td>Undergraduate Research-Neuroscience</td>
<td></td>
</tr>
</tbody>
</table>
A total of 42 credit hours of biology courses must be completed with grades of C- or better. At least 26 of these must be at the 300- or 400-level. A minimum of 21 credit hours of biology courses must be taken from the School of Biological Sciences. The Microbiology laboratory course must be writing intensive. The UM Biology GPA must be at least 2.0.

### Additional Biology Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIFE-SCI 499I</td>
<td>Undergraduate Research-Botany</td>
<td>3</td>
</tr>
<tr>
<td>LIFE-SCI 499J</td>
<td>Undergraduate Research-Zoology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499K</td>
<td>Undergraduate Research-Ecology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499L</td>
<td>Undergraduate Research-Biological Sciences</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499M</td>
<td>Undergraduate Research-Biological Sciences Honors</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499P</td>
<td>Undergraduate Research-Biotechnology</td>
<td></td>
</tr>
</tbody>
</table>

### Physical sciences and mathematics requirements

All of the following courses are required. A grade of C- or better is required in each course used to fulfill these requirements.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 120</td>
<td>Precalculus</td>
<td>5</td>
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<tr>
<td>MATH 210</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 216</td>
<td>Calculus for Biological Sciences</td>
<td></td>
</tr>
</tbody>
</table>

Select one of the following: 3-4

- MATH 220 | Calculus II                            |         |
- MATH 226 | Biomath II: Statistics and Modeling    |         |
- STAT 235 | Elementary Statistics                  |         |
- PHYSICS 210 | General Physics I     | 4-5     |
- or PHYSICS 240 | Physics For Scientists and Engineers I |        |
- PHYSICS 220 | General Physics II            | 4-5     |
- or PHYSICS 250 | Physics For Scientists and Engineers II | |
- CHEM 211 | General Chemistry I                   |  4      |
- CHEM 211L | Experimental General Chemistry I      |  1      |
- CHEM 212R | General Chemistry II                  |  4      |
- CHEM 212LR | Experimental General Chemistry II     |  1      |
- CHEM 321 | Organic Chemistry I                   |  3      |
- CHEM 321L | Organic Chemistry Laboratory I        |  1      |
- CHEM 322R | Organic Chemistry II                  |  3      |
- CHEM 322L | Organic Chemistry Laboratory II       |  1      |

Total Credits: 38-41

1. Students may choose LIFE-SCI 401, as an alternative to PHYSICS 250.

### General Electives

A minimum of 120 credit hours is required; and 36 of these must be at the 300- or 400-level. Electives may be taken from any area once other degree requirements have been met.

A maximum of 12 hours for a combination of 399, 497, and 499 coursework may be applied toward with major with only 4 credit hours at the 400-level.

**Minimum GPA: 2.0 (UM cumulative; UM Biology)**

**Total Credit Hours: 120**
Tools for Planning and Fulfilling Academic Requirements

UMKC’s Major Maps (https://cf1.umkc.edu/majormapsis) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Science in Biology, Clinical Laboratory Science Emphasis

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

- Identify fundamental concepts in the biological sciences, including the relationship between structure and function at all levels of biological organization, evolution and the role of natural selection in the process, ecological relationships between organisms and their environment.

- Describe cellular structure and explain the major biochemical processes that occur in cells.

- Describe and explain the mechanisms of heredity and the flow of genetic information.

- Employ techniques and procedures commonly used in modern biology laboratories.

- Analyze and critically evaluate scientific data.

- Write clearly about topics in the biological sciences for a peer or professional audience.

Program Requirements
The SBS offers a program leading to a BS degree in Biology with the Clinical Laboratory Science emphasis. The typical student spends the first three years on the UMKC campus completing the general education and basic science course requirements of the baccalaureate degree. A final 12 month course of clinical studies is completed in an affiliated hospital clinical program, which is approved by the Council on Medical Education of the American Medical Association and accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). Affiliated clinical programs are located at North Kansas City Memorial and Saint Luke’s hospitals. After completing the clinical program and earning a bachelor’s degree, students are eligible to take a national certification board examination. Passing the certification examination is not a condition for receiving the BS degree in Biology with the Clinical Laboratory Science emphasis but is often required for employment in the field.

Acceptance into a hospital clinical program is competitive. Admission into the BS degree in Biology with the Clinical Laboratory Science emphasis at UMKC does not guarantee acceptance of the student by an affiliated hospital clinical program. Clinical instruction in the hospital is a 12-month, full-time day program.

Application to the clinical program is made directly by the student to any (or all) of the affiliated hospitals. The student should apply during the summer or fall of his/her junior year. A list of program contacts is available from an SBS Advisor. Hospital programs differ in admission criteria, application deadlines and early admission options. Early application is advised.
Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied by the Constitution course requirement below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus Elective (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) 1</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) 1</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

Major Requirements

Biology course requirements. Biology courses that fulfill the BS in Biology with the Clinical Laboratory Science emphasis requirements are listed below. A total of 32 credit hours of biology courses is required and at least 16 of these must be at the 300 or 400 level. A minimum of 16 credit hours of Biology courses must be earned from UMKC SBS. A grade of C- or better is required in each course used to fulfill these requirements.

The following courses are required of all students seeking the BS degree in Biology with the Clinical Laboratory Science emphasis.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 108</td>
<td>General Biology I (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 108L</td>
<td>General Biology I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOLOGY 109</td>
<td>General Biology II (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>Code</td>
<td>Title</td>
<td>Credits</td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>BIOLOGY 109L</td>
<td>General Biology II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOLOGY 202</td>
<td>Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 206</td>
<td>Genetics</td>
<td>3</td>
</tr>
<tr>
<td>LS-BIOC 441</td>
<td>Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>LS-MCRB 313</td>
<td>Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>LS-MCRB 313WL</td>
<td>Laboratory in Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>LS-MCRB 435</td>
<td>Immunology</td>
<td>3</td>
</tr>
<tr>
<td>LS-PHYS 316</td>
<td>Principles of Physiology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>29</strong></td>
</tr>
</tbody>
</table>

In addition, students must take 3 or more additional hours to be chosen from:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 328</td>
<td>Histology</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 328L</td>
<td>Laboratory in Histology and Cellular Ultrastructure</td>
<td>3</td>
</tr>
<tr>
<td>or BIOLOGY 328WL</td>
<td>Laboratory in Histology and Cellular Ultrastructure</td>
<td>3</td>
</tr>
<tr>
<td>LIFE-SCI 401</td>
<td>Biophysical Principles</td>
<td>3</td>
</tr>
<tr>
<td>LS-ANATO 218</td>
<td>Introductory Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>LS-ANATO 218L</td>
<td>Introductory Anatomy Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>LS-BIOC 360L</td>
<td>Laboratory in Biochemistry and Molecular Biology</td>
<td>3</td>
</tr>
<tr>
<td>or LS-BIOC 360WL</td>
<td>Laboratory in Biochemistry and Molecular Biology</td>
<td>3</td>
</tr>
<tr>
<td>LS-BIOC 430</td>
<td>Molecular Biology and Genetic Engineering</td>
<td>3</td>
</tr>
<tr>
<td>LS-MCRB 431</td>
<td>Virology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>3</strong></td>
</tr>
</tbody>
</table>

**Physical sciences and mathematics requirements.** The following are required. A grade of C- or better is required in each course used to fulfill these requirements.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 211</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 211L</td>
<td>Experimental General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 212R</td>
<td>General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 212LR</td>
<td>Experimental General Chemistry II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 320</td>
<td>Elementary Organic Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 320L</td>
<td>Experimental Organic Chemistry</td>
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</tr>
<tr>
<td>CHEM 341</td>
<td>Analytical Chemistry I: Quantitative Analysis</td>
<td>4</td>
</tr>
<tr>
<td>MATH 210</td>
<td>Calculus I</td>
<td>3-4</td>
</tr>
<tr>
<td>or MATH 216</td>
<td>Calculus for Biological Sciences</td>
<td>3-4</td>
</tr>
<tr>
<td>or STAT 235</td>
<td>Elementary Statistics</td>
<td>3-4</td>
</tr>
<tr>
<td>PHYSICS 210</td>
<td>General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYSICS 220</td>
<td>General Physics II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>30-31</strong></td>
</tr>
</tbody>
</table>

Satisfactory completion of a clinical program at an affiliated hospital. This will allow the student to earn 30 credit hours toward the bachelor’s degree. Ten of the clinical hours are allowed as upper level biology toward the 42 hours required for the BS. Twenty of the clinical hours are allowed as upper level general science credit. Completion of the clinical program also fulfills the Biology Synthesis requirement.
A total of **120** credit hours (minimum) is required; these may be taken from any area once other degree requirements have been met. For most students, more than 120 credit hours will be needed to meet all requirements.

A maximum of 12 hours for a combination of 399, 497, and 499 coursework may be applied toward with major with only 4 credit hours at the 400-level.

**Minimum GPA: 2.0 (UM cumulative; UM Biology)**

**Total Credit Hours: 120**

**Tools for Planning and Fulfilling Academic Requirements**

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major "fit". In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student's officially recorded (Office of Registration and Records) and "what if" plans of study. This evaluation is used to certify all graduation requirements.

UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Science in Biology Pre-Dentistry Interest Area

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

• Identify fundamental concepts in the biological sciences, including the relationship between structure and function at all levels of biological organization, evolution and the role of natural selection in the process, ecological relationships between organisms and their environment.
• Describe cellular structure and explain the major biochemical processes that occur in cells.
• Describe and explain the mechanisms of heredity and the flow of genetic information.
• Apply knowledge in basic mathematics, chemistry, and physics to solve biological problems.
• Employ techniques and procedures commonly used in modern biology laboratories.
• Analyze and critically evaluate scientific data.
• Write clearly about topics in the biological sciences for a peer or professional audience.

Students interested in pursuing undergraduate degree programs offered by the School of Biological Sciences are admitted through the UMKC Office of Admissions (http://www.umkc.edu/admissions). Transfer or Readmitted students should contact the University admissions office and the School of Biological Sciences for information about transfer admissions and evaluation of transfer coursework. Transfer admission eligibility includes an overall grade-point average of at least 2.0 for all college-level coursework attempted at previous institutions, an overall GPA of at least 2.0 in courses used to fulfill School of Biological Sciences major requirements, and a University of Missouri Biology GPA of at least 2.0.

Program Requirements
This instructional program fully prepares individuals for admission to a professional school in dentistry. By completing the requirements of the bachelor’s of science in biology with the pre-dentistry interest area, students will complete all of the minimum prerequisites and upper level electives suggested by dental schools across the United States. The courses selected provide a foundation of knowledge in modern dentistry, essential for understanding dental science. The curriculum of general education and biology majors courses, combined with the mathematics, chemistry and physics components, provides the background essential to understanding the latest diagnostic and treatment technologies.

UMKC General Education Core (http://www.umkc.edu/core) requirements are the same as for all students seeking a bachelor’s degree in biology. Through proper planning with a School of Biological Sciences advisor, biology majors can use their elective general education requirements to complete the healing and humanities minor.

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>
DISC 100  Discourse I: Reasoning and Values (Speech and Writing)  3
DISC 200  Discourse II: Culture and Diversity (Writing and Speech)  3
DISC 300  Discourse III: Civic and Community Engagement (Speech and Writing)  3
Focus A  3
Focus B (Satisfied in program requirements below)
Focus C (May be satisfied by the Constitution course requirement below)
Focus Elective (Satisfied in program requirements below)

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits  21

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions."

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) 1</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits  3

Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

Major Requirements

Biology course requirements

Core courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 108</td>
<td>General Biology I (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 108L</td>
<td>General Biology I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOLOGY 109</td>
<td>General Biology II (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 109L</td>
<td>General Biology II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOLOGY 202</td>
<td>Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 206</td>
<td>Genetics</td>
<td>3</td>
</tr>
<tr>
<td>LS-BIOC 441</td>
<td>Biochemistry</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits  17

Interest area course requirements
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 328</td>
<td>Histology and Laboratory in Histology and Cellular Ultrastructure</td>
<td>5</td>
</tr>
<tr>
<td>BIOLOGY 409</td>
<td>Developmental Biology</td>
<td>3</td>
</tr>
<tr>
<td>LS-ANATO 218 &amp; 218L</td>
<td>Introductory Anatomy and Introductory Anatomy Laboratory</td>
<td>5</td>
</tr>
<tr>
<td>LS-MCRB 313</td>
<td>Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>LS-MCRB 435</td>
<td>Immunology</td>
<td>3</td>
</tr>
<tr>
<td>or LS-BIOC 430</td>
<td>Molecular Biology and Genetic Engineering</td>
<td></td>
</tr>
<tr>
<td>LS-PHYS 316</td>
<td>Principles of Physiology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 498WI</td>
<td>Critical Analysis of Biological Issues</td>
<td>3</td>
</tr>
<tr>
<td>LIFE-SCI 497A</td>
<td>Directed Studies-Bioinformatics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497B</td>
<td>Directed Studies-Genetics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497BB</td>
<td>Directed Studies: Behavioral Biology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497C</td>
<td>Directed Studies-Microbiology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497D</td>
<td>Directed Studies-Physiology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497E</td>
<td>Directed Studies - Biochemistry</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497F</td>
<td>Directed Studies - Biophysics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497G</td>
<td>Directed Studies-Cell Biology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497H</td>
<td>Directed Studies - Neuroscience</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497I</td>
<td>Directed Studies-Botany</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497J</td>
<td>Directed Studies-Zoology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497K</td>
<td>Directed Studies - Ecology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497L</td>
<td>Directed Studies - Biological Sciences</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 497P</td>
<td>Directed Studies - Biotechnology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499A</td>
<td>Undergraduate Research-Bioinformatics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499B</td>
<td>Undergraduate Research-Genetics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499C</td>
<td>Undergraduate Research-Microbiology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499D</td>
<td>Undergraduate Research-Physiology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499E</td>
<td>Undergraduate Research-Biochemistry</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499F</td>
<td>Undergraduate Research- Biophysics</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499G</td>
<td>Undergraduate Research-Cell Biology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499H</td>
<td>Undergraduate Research-Neuroscience</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499I</td>
<td>Undergraduate Research-Botany</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499J</td>
<td>Undergraduate Research-Zoology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499K</td>
<td>Undergraduate Research- Ecology</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499L</td>
<td>Undergraduate Research-Biological Sciences</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499M</td>
<td>Undergraduate Research-Biological Sciences Honors</td>
<td></td>
</tr>
<tr>
<td>LIFE-SCI 499P</td>
<td>Undergraduate Research-Biotechnology</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits**

Students must complete additional biology majors coursework to total 42 credit hours of biology courses with grades of C- or better. At least 26 of these must be at the 300- or 400-level. A minimum of 21 credit hours of biology courses must be taken from the School of Biological Sciences. The UM biology GPA must be at least 2.0.

**Physical sciences and mathematics requirements**

All of the following courses are required. A grade of C- or better is required in each course used to fulfill these requirements.
Students may choose LIFE-SCI 401 as an alternative to PHYSICS 250.

A minimum of 120 credit hours is required; and 36 of these must be at the 300- or 400-level.

A maximum of 12 hours for a combination of 399, 497, and 499 coursework may be applied toward with major with only 4 credit hours at the 400-level.

Minimum GPA: 2.0 (UM cumulative; UM Biology)

Total Credit Hours: 120

Tools for Planning and Fulfilling Academic Requirements

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major “fit”.

In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student's officially recorded (Office of Registration and Records) and "what if" plans of study. This evaluation is used to certify all graduation requirements.

UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Arts in Biology

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

- Identify fundamental concepts in the biological sciences, including the relationship between structure and function at all levels of biological organization, evolution and the role of natural selection in the process, ecological relationships between organisms and their environment.
- Describe cellular structure and explain the major biochemical processes that occur in cells.
- Describe and explain the mechanisms of heredity and the flow of genetic information.
- Apply knowledge from other fields to biological problems.
- Evaluate scientific data.
- Write clearly about topics in the biological sciences for a peer or professional audience.

Students interested in pursuing undergraduate degree programs offered by the School of Biological Sciences are admitted through the UMKC Office of Admissions (http://www.umkc.edu/admissions). Transfer or Readmitted students should contact the University admissions office and the School of Biological Sciences for information about transfer admissions and evaluation of transfer coursework. Transfer admission eligibility includes an overall grade-point average of at least 2.0 for all college-level coursework attempted at previous institutions, an overall GPA of at least 2.0 in courses used to fulfill School of Biological Sciences major requirements, and a University of Missouri Biology GPA of at least 2.0.

The B.A. degree program in biology is designed to accommodate students who want a solid background in the biological sciences, but who need less rigorous studies in the supporting sciences of chemistry, mathematics and physics. It is also recommended for students who plan to pursue double majors.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B (Satisfied in requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied by the Constitution course requirement below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Focus Elective (Satisfied in program requirements below)

‘Total credits’ in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

| Total Credits | 21 |

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

### Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Choose one of the following:</td>
<td></td>
</tr>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) ¹</td>
<td></td>
</tr>
</tbody>
</table>

| Total Credits | 3 |

¹ Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

### Science and Mathematics Course Requirements

The following courses must be completed with grades of C- or better:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 120</td>
<td>Precalculus</td>
<td>5</td>
</tr>
<tr>
<td>MATH 216</td>
<td>Calculus for Biological Sciences</td>
<td>3-4</td>
</tr>
<tr>
<td>or MATH 210</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>or STAT 235</td>
<td>Elementary Statistics</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 210</td>
<td>General Physics I (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>or PHYSICS 240</td>
<td>Physics For Scientists and Engineers I</td>
<td></td>
</tr>
<tr>
<td>CHEM 211</td>
<td>General Chemistry I (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 211L</td>
<td>Experimental General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 212R</td>
<td>General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 212LR</td>
<td>Experimental General Chemistry II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 320</td>
<td>Elementary Organic Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 320L</td>
<td>Experimental Organic Chemistry</td>
<td>1</td>
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</tbody>
</table>

| Total Credits | 27-28 |

### Major Requirements

**Biology Course Requirements**
### Bachelor of Arts in Biology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 108</td>
<td>General Biology I (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 108L</td>
<td>General Biology I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOLOGY 109</td>
<td>General Biology II (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 109L</td>
<td>General Biology II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOLOGY 202</td>
<td>Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 206</td>
<td>Genetics</td>
<td>3</td>
</tr>
<tr>
<td>LS-BIOC 441</td>
<td>Biochemistry</td>
<td>3</td>
</tr>
</tbody>
</table>

**Biology Laboratory Courses**

Select one of the following: 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 302L</td>
<td>Ecology Laboratory</td>
</tr>
<tr>
<td>BIOLOGY 312WL</td>
<td>Laboratory in Developmental Biology, Genetics and Cell Biology</td>
</tr>
<tr>
<td>BIOLOGY 328L</td>
<td>Laboratory in Histology and Cellular Ultrastructure</td>
</tr>
<tr>
<td>or BIOLOGY 328WL</td>
<td>Laboratory in Histology and Cellular Ultrastructure</td>
</tr>
<tr>
<td>BIOLOGY 338L</td>
<td>Comparative Vertebrate Anatomy Laboratory</td>
</tr>
<tr>
<td>LS-BIOC 360L</td>
<td>Laboratory in Biochemistry and Molecular Biology</td>
</tr>
<tr>
<td>or LS-BIOC 360WL</td>
<td>Laboratory in Biochemistry and Molecular Biology</td>
</tr>
<tr>
<td>LS-ANATO 218L</td>
<td>Introductory Anatomy Laboratory</td>
</tr>
<tr>
<td>LS-MCRB 313L</td>
<td>Laboratory in Microbiology</td>
</tr>
<tr>
<td>or LS-MCRB 313WL</td>
<td>Laboratory in Microbiology</td>
</tr>
</tbody>
</table>

**Biology Synthesis Requirement**

Select from the following for a total of three credit hours (maximum of 4 hours of LIFE-SCI 497 and 499 can be used toward the rest of the sub-requirements): 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 498WI</td>
<td>Critical Analysis of Biological Issues (WI)</td>
</tr>
<tr>
<td>LIFE-SCI 497A</td>
<td>Directed Studies-Bioinformatics</td>
</tr>
<tr>
<td>LIFE-SCI 497B</td>
<td>Directed Studies-Genetics</td>
</tr>
<tr>
<td>LIFE-SCI 497BB</td>
<td>Directed Studies: Behavioral Biology</td>
</tr>
<tr>
<td>LIFE-SCI 497C</td>
<td>Directed Studies-Microbiology</td>
</tr>
<tr>
<td>LIFE-SCI 497D</td>
<td>Directed Studies-Physiology</td>
</tr>
<tr>
<td>LIFE-SCI 497E</td>
<td>Directed Studies - Biochemistry</td>
</tr>
<tr>
<td>LIFE-SCI 497F</td>
<td>Directed Studies - Biophysics</td>
</tr>
<tr>
<td>LIFE-SCI 497G</td>
<td>Directed Studies-Cell Biology</td>
</tr>
<tr>
<td>LIFE-SCI 497H</td>
<td>Directed Studies - Neuroscience</td>
</tr>
<tr>
<td>LIFE-SCI 497I</td>
<td>Directed Studies-Botany</td>
</tr>
<tr>
<td>LIFE-SCI 497J</td>
<td>Directed Studies-Zoology</td>
</tr>
<tr>
<td>LIFE-SCI 497K</td>
<td>Directed Studies - Ecology</td>
</tr>
<tr>
<td>LIFE-SCI 497L</td>
<td>Directed Studies - Biological Sciences</td>
</tr>
<tr>
<td>LIFE-SCI 497P</td>
<td>Directed Studies - Biotechnology</td>
</tr>
<tr>
<td>LIFE-SCI 499A</td>
<td>Undergraduate Research-Bioinformatics</td>
</tr>
<tr>
<td>LIFE-SCI 499B</td>
<td>Undergraduate Research-Genetics</td>
</tr>
<tr>
<td>LIFE-SCI 499C</td>
<td>Undergraduate Research-Microbiology</td>
</tr>
<tr>
<td>LIFE-SCI 499D</td>
<td>Undergraduate Research-Physiology</td>
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<tr>
<td>LIFE-SCI 499E</td>
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<td>Undergraduate Research- Biophysics</td>
</tr>
<tr>
<td>LIFE-SCI 499G</td>
<td>Undergraduate Research-Cell Biology</td>
</tr>
<tr>
<td>LIFE-SCI 499H</td>
<td>Undergraduate Research-Neuroscience</td>
</tr>
<tr>
<td>LIFE-SCI 499I</td>
<td>Undergraduate Research-Botany</td>
</tr>
<tr>
<td>LIFE-SCI 499J</td>
<td>Undergraduate Research-Zoology</td>
</tr>
<tr>
<td>LIFE-SCI 499K</td>
<td>Undergraduate Research-Ecology</td>
</tr>
<tr>
<td>LIFE-SCI 499L</td>
<td>Undergraduate Research-Biological Sciences</td>
</tr>
<tr>
<td>LIFE-SCI 499M</td>
<td>Undergraduate Research-Biological Sciences Honors</td>
</tr>
<tr>
<td>LIFE-SCI 499P</td>
<td>Undergraduate Research-Biotechnology</td>
</tr>
</tbody>
</table>
Writing Intensive Lecture or Lab Course (may be fulfilled with lab or elective coursework above.)

Total Credits 22

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 201</td>
<td>Preparing for Careers in Biology</td>
<td>17</td>
</tr>
<tr>
<td>BIOLOGY 302</td>
<td>General Ecology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 303</td>
<td>Invertebrate Zoology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 305</td>
<td>Marine and Freshwater Biology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 308</td>
<td>Vertebrate Zoology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 314</td>
<td>Entomology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 319</td>
<td>Global Health: New and Emerging Infectious Diseases</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 322</td>
<td>General Parasitology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 326</td>
<td>Biological Conservation</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 327</td>
<td>Biogeography and Biodiversity</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 328</td>
<td>Histology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 329</td>
<td>Endocrinology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 346</td>
<td>Plant Biology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 350</td>
<td>Assisting Undergraduate Learning in Biology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 385</td>
<td>Special Topics</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 405</td>
<td>Introduction to Evolution</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 409</td>
<td>Developmental Biology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 442</td>
<td>Neurobiology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 445</td>
<td>Evolutionary Ecology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 485</td>
<td>Special Topics</td>
<td></td>
</tr>
</tbody>
</table>

1 Students must complete additional biology majors coursework to total at least 38 credit hours of biology courses with grades of C- or better. At least 24 of these must be at the 300- or 400-level. One of these courses must be writing intensive. A minimum of 21 credit hours of biology courses must be taken from the School of Biological Sciences. The UM Biology GPA must be at least 2.0.

General Electives 30

Minimum GPA: 2.0

Total Credit Hours: 120

**Tools for Planning and Filling Academic Requirements**

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Arts in Biology for combined BA/MD Dual Degree Program

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

• Identify fundamental concepts in the biological sciences, including the relationship between structure and function at all levels of biological organization, evolution and the role of natural selection in the process, ecological relationships between organisms and their environment.
• Describe cellular structure and explain the major biochemical processes that occur in cells.
• Describe and explain the mechanisms of heredity and the flow of genetic information.
• Apply knowledge in basic mathematics, chemistry, and physics to solve biological problems.
• Employ techniques and procedures commonly used in modern biology laboratories.
• Analyze and critically evaluate scientific data.
• Write clearly about topics in the biological sciences for a peer or professional audience.

Program Requirements
UMKC General Education Core (http://www.umkc.edu/core) requirements are the same for all students pursuing a Bachelor’s degree in SBS. Students in the 6 yr BA/MD program will apply specific courses required by the medical program to fulfill these requirements.

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I¹</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor II¹</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor III¹</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A¹</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
</tbody>
</table>

¹Total credits in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 21
See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

**Constitution Course Requirement**

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits: 3

Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

**Program Prerequisites**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 210</td>
<td>General Psychology (Focus C)</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 101</td>
<td>Sociology: An Introduction</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 211</td>
<td>Social And Psychological Development Through The Life Cycle</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits: 9

**Major Requirements**

**Biology course requirements.** Biology courses that fulfill the BA degree requirements are listed below. A grade of C- or better is required in each course used to fulfill these requirements.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 108</td>
<td>General Biology I (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 108L</td>
<td>General Biology I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOLOGY 202</td>
<td>Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 206</td>
<td>Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BMS 9265</td>
<td>Human Biochemistry 1 - Medical</td>
<td>5</td>
</tr>
</tbody>
</table>

Total Credits: 15

**Specialized requirements:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS-ANATO 219</td>
<td>Functional Anatomy I</td>
<td>3</td>
</tr>
<tr>
<td>LS-MCRB 121</td>
<td>Human Biology III (Microbiology)</td>
<td>3</td>
</tr>
<tr>
<td>BMS 9296</td>
<td>Human Structure Function I</td>
<td>7</td>
</tr>
<tr>
<td>BMS 9297</td>
<td>Human Structure Function II</td>
<td>6</td>
</tr>
</tbody>
</table>
BMS 9298  Human Structure Function III  5
BMS 9399  Human Structure Function IV  4
Total Credits  28

Biology Required Labs

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS-ANATO 218L</td>
<td>Introductory Anatomy Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>LS-MCRB 121L</td>
<td>Human Biology III (Microbiology) Lab</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td>3</td>
</tr>
</tbody>
</table>

Biology Synthesis Requirement

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 498WI</td>
<td>Critical Analysis of Biological Issues</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td>3</td>
</tr>
</tbody>
</table>

Physical sciences and mathematics requirements: All of the following courses are required. A grade of C- or better is required in each course used to fulfill these requirements.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 211</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 211L</td>
<td>Experimental General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 212R</td>
<td>General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 212LR</td>
<td>Experimental General Chemistry II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 320</td>
<td>Elementary Organic Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 320L</td>
<td>Experimental Organic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>3-4</td>
</tr>
<tr>
<td>MATH 210</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MATH 216</td>
<td>Calculus for Biological Sciences</td>
<td></td>
</tr>
<tr>
<td>STAT 235</td>
<td>Elementary Statistics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td>18-19</td>
</tr>
</tbody>
</table>

Additional information about the BA/MD program may be found on the School of Medicine Website (p. 1518).

Tools for Planning and Fulfilling Academic Requirements

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

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UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Honors Program

The School of Biological Sciences offers a biology honors program for bachelor of science undergraduate students interested in pursuing rigorous preparation for advanced professional training and scientific careers. The program combines a requirement for high levels of academic achievement with hands-on undergraduate research with a faculty mentor. Biology honors students are included in all scholarly and social events of the School of Biological Sciences graduate program. Students are encouraged to apply by contacting the School of Biological Sciences Undergraduate Programs Office.

Freshman students may be accepted into the honors program if they are in the top 10 percent of their high school graduating class and have a composite score greater than 1300 on the SAT, 1350 on the recentered SAT, or 30 on the ACT. Eligible students may also be accepted at the end of their freshman year or later (until the beginning of their junior year or 70 credit hours). Requirements for admission at the end of the freshman or sophomore year for UMKC students or transfer students include:

1. A 3.5 minimum undergraduate GPA.
2. A 3.5 undergraduate GPA in sciences/mathematics.
3. Satisfactory progress to that point in the B.S. degree program, including completion (minimally) of the following (with grades of B or better):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 211</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 212R</td>
<td>General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 210</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 216</td>
<td>Calculus for Biological Sciences</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 108</td>
<td>General Biology I (or equivalent)</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 109</td>
<td>General Biology II (or equivalent)</td>
<td>3</td>
</tr>
</tbody>
</table>

4. An interview to explore the student’s interests and identify an appropriate faculty mentor.

Graduation with a B.S. in biology with honors will be noted on the official university transcript and records of those students who:

1. Complete all of the B.S. degree requirements.
2. Complete at least two semesters (4 credit hours total) of LIFE-SCI 499M with a grade of B or better.
3. Maintain a 3.5 UM GPA; 3.5 science/mathematics UM GPA.
4. Successfully complete a semester of LIFE-SCI 490WI.
5. Satisfactory completion of of an undergraduate (senior) research thesis.

Requirements for retention in the Biology Honors Program include the following:

1. Students must maintain a 3.5 minimum UM cumulative GPA and a 3.5 minimum Math-Science GPA to be in good standing in the biology honors program.
2. Should either the cumulative or Math-Science GPA drop below 3.5, but not below 3.2 in any given semester, the student will be retained in the biology honors program for an additional semester. The student must restore the GPA to the 3.5 minimum at the end of that semester. A student who has less than a 3.2 cumulative UM GPA at the end of any semester will be dropped from the biology honors program.
3. Students must make satisfactory progress in the biology honors program, as determined by the SBS Academic Standards Committee, in order to be retained in the program.
Minor in Biology

Student Learning Outcomes

Students graduating from this program will:

- Identify fundamental concepts in the biological sciences, including the relationship between structure and function at all levels of biological organization, evolution and the role of natural selection in the process, ecological relationships between organisms and their environment.
- Describe cellular structure and explain the major biochemical processes that occur in cells.
- Describe and explain the mechanisms of heredity and the flow of genetic information.
- Apply knowledge in basic mathematics, chemistry, and physics to solve biological problems.
- Employ techniques and procedures commonly used in modern biology laboratories.
- Analyze and critically evaluate scientific data.
- Write clearly about topics in the biological sciences for a peer or professional audience.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 108</td>
<td>General Biology I</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 108L</td>
<td>General Biology I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOLOGY 109</td>
<td>General Biology II</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 109L</td>
<td>General Biology II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOLOGY 202</td>
<td>Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 206</td>
<td>Genetics</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one of the following laboratory courses: 2-3

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS-ANATO 218L</td>
<td>Introductory Anatomy Laboratory</td>
</tr>
<tr>
<td>BIOLOGY 302L</td>
<td>Ecology Laboratory</td>
</tr>
<tr>
<td>BIOLOGY 312WL</td>
<td>Laboratory in Developmental Biology, Genetics</td>
</tr>
<tr>
<td>LS-MCRB 313L</td>
<td>Laboratory in Microbiology</td>
</tr>
<tr>
<td>LS-MCRB 313WL</td>
<td>Laboratory in Microbiology</td>
</tr>
<tr>
<td>LS-BIOC 360L</td>
<td>Laboratory in Biochemistry and Molecular Biology</td>
</tr>
<tr>
<td>LS-BIOC 360WL</td>
<td>Laboratory in Biochemistry and Molecular Biology</td>
</tr>
<tr>
<td>BIOLOGY 328L</td>
<td>Laboratory in Histology and Cellular Ultrastructure</td>
</tr>
<tr>
<td>BIOLOGY 328WL</td>
<td>Laboratory in Histology and Cellular Ultrastructure</td>
</tr>
</tbody>
</table>

Upper-level Biology Majors Courses 1

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
</table>

1 The seven hours may include any of the upper-level lab courses listed above.

Total Credits 23-24

Total Biology hours: 21

Standards that must be met for the minor:

1. Only grades of C- or better will be allowed to count toward fulfillment of the required 21 hours of biology coursework.
2. Students seeking a biology minor must have a minimum cumulative 2.0 UM biology GPA in courses used to fulfill the minor requirements.
3. At least 11 of the 21 required hours must be earned from the School of Biological Sciences.
4. At least 4 of the 7 hours of junior/senior level coursework must be earned from the School of Biological Sciences.
Teacher Certification in Biology

Student Learning Outcomes

Students who complete a teacher certification in biology will be able to:

1. Identify fundamental concepts in the biological sciences, including
   a. the relationship between structure and function at all levels of biological organization,
   b. evolution and the role of natural selection in the process,
   c. ecological relationships between organisms and their environment.
2. Describe cellular structure and explain the major biochemical processes that occur in cells.
3. Describe and explain the mechanisms of heredity and the flow of genetic information.
4. Apply knowledge in basic mathematics, chemistry, and physics to solve biological problems.
5. Employ techniques and procedures commonly used in modern biology laboratories.
6. Analyze and critically evaluate scientific data.
7. Write clearly about topics in the biological sciences for a peer or professional audience.

Program Requirements

Certification as a middle school (grades 5-9) or secondary (grades 9-12) Biology teacher in either Kansas or Missouri requires that a student complete specific requirements in Biology, Chemistry, Environmental Science, Geology, Physics and the School of Education. A separate application for teacher education is required. For further information about the program, consult the School of Education section (p. 1018) of this catalog or contact the Education Student Services Office at (816) 235-2234.
## Elective Courses for the Non-Biology Major

Students in other academic units are encouraged to select courses in the School of Biological Sciences to meet their general education requirements and to complement their major area of study. Suggested courses include:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 102</td>
<td>Biology and Living</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 102L</td>
<td>Biology and Living Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>LS-ANATO 218</td>
<td>Introductory Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>LS-ANATO 218L</td>
<td>Introductory Anatomy Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>LS-MCRB 112</td>
<td>Microbiology and Living</td>
<td>3</td>
</tr>
<tr>
<td>LS-PHYS 217</td>
<td>Human Physiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 108</td>
<td>General Biology I</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 109</td>
<td>General Biology II</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 202</td>
<td>Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 206</td>
<td>Genetics</td>
<td>3</td>
</tr>
</tbody>
</table>

### Upper-level Courses

1. Upper-level courses for which prerequisites have been satisfied are recommended for those students who wish to gain a strong foundation in biological sciences.

Students enrolling in these biology majors’ courses should have a solid background in high school biology and chemistry.
Master of Science in Cellular and Molecular Biology

Student Learning Outcomes

Students graduating from this program will:

• Describe structures and functions of key biological molecules
• Describe storage, transmission and expression of genetic information
• Develop oral and written communication skills
• Understand and develop approaches to test hypotheses about biological mechanisms

Degree Requirements

Thesis Option

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS-MBB 5561</td>
<td>General Biochemistry I</td>
<td>6</td>
</tr>
<tr>
<td>&amp; LS-MBB 5562</td>
<td>and General Biochemistry II</td>
<td></td>
</tr>
<tr>
<td>LS-CBB 5530</td>
<td>Cell and Molecular Biology I</td>
<td>6</td>
</tr>
<tr>
<td>&amp; LS-CBB 5520</td>
<td>and Cell and Molecular Biology II</td>
<td></td>
</tr>
<tr>
<td>LS-MBB 5611</td>
<td>Seminar in Molecular Biology and Biochemistry</td>
<td>1</td>
</tr>
<tr>
<td>or LS-CBB 5612</td>
<td>Seminar in Cell Biology and Biophysics</td>
<td></td>
</tr>
<tr>
<td>LS-MBB 5599</td>
<td>Thesis Research in Molecular Biology and Biochemistry</td>
<td>6</td>
</tr>
<tr>
<td>or LS-CBB 5599</td>
<td>Thesis Research in Cell Biology and Biophysics</td>
<td></td>
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</tbody>
</table>

Electives

Select eleven credit hours from the following: 1

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 5510</td>
<td>Gross Anatomy for Nurse Anesthetists</td>
</tr>
<tr>
<td>BIOLOGY 5510L</td>
<td>Gross Anatomy for Nurse Anesthetists</td>
</tr>
<tr>
<td>BIOLOGY 5519</td>
<td>Principles of Evolution</td>
</tr>
<tr>
<td>BIOLOGY 5525</td>
<td>Bioinformatics and Data Analysis</td>
</tr>
<tr>
<td>BIOLOGY 5528</td>
<td>Human Genomic Epidemiology</td>
</tr>
<tr>
<td>BIOLOGY 5539</td>
<td>Mammalian Physiology</td>
</tr>
<tr>
<td>BIOLOGY 5540</td>
<td>Pathophysiology</td>
</tr>
<tr>
<td>BIOLOGY 5542</td>
<td>Neurobiology</td>
</tr>
<tr>
<td>BIOLOGY 5593</td>
<td>Master of Science Topics</td>
</tr>
<tr>
<td>LS-CBB 5501</td>
<td>Graduate Biophysical Principles</td>
</tr>
<tr>
<td>LS-CBB 5504</td>
<td>Graduate Virology</td>
</tr>
<tr>
<td>LS-CBB 5596</td>
<td>Advanced Experimental Cell Biology I</td>
</tr>
<tr>
<td>LS-CBB 5597</td>
<td>Advanced Experimental Cell Biology II</td>
</tr>
<tr>
<td>LS-MBB 5509</td>
<td>Graduate Developmental Biology</td>
</tr>
<tr>
<td>LS-MBB 5565</td>
<td>Structure And Function Of Proteins</td>
</tr>
<tr>
<td>LS-MBB 5596</td>
<td>Advanced Experimental Molecular Biology I</td>
</tr>
<tr>
<td>LS-MBB 5597</td>
<td>Advanced Experimental Molecular Biology II</td>
</tr>
</tbody>
</table>

Total Credits 30

Elective courses may also be selected from other alternatives approved by the School of Biological Sciences Graduate Programs Committee. A limited number of credit hours of upper-level undergraduate courses may be allowed.

Students pursuing the thesis option must also satisfactorily complete written and oral thesis exams.

Non-Thesis Option

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS-MBB 5561</td>
<td>General Biochemistry I</td>
<td>6</td>
</tr>
<tr>
<td>&amp; LS-MBB 5562</td>
<td>and General Biochemistry II</td>
<td></td>
</tr>
<tr>
<td>LS-CBB 5530</td>
<td>Cell and Molecular Biology I</td>
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</tr>
<tr>
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<td>and Cell and Molecular Biology II</td>
<td></td>
</tr>
<tr>
<td>LS-MBB 5611</td>
<td>Seminar in Molecular Biology and Biochemistry</td>
<td>1</td>
</tr>
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</table>
Select seventeen credit hours from the following: ¹

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<tr>
<th>Code</th>
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</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>LS-CBB 5504</td>
<td>Gradute Virology</td>
<td></td>
</tr>
<tr>
<td>LS-CBB 5538</td>
<td>Molecular Recognition in Cellular Biology</td>
<td></td>
</tr>
<tr>
<td>LS-CBB 5596</td>
<td>Advanced Experimental Cell Biology I</td>
<td></td>
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<td>LS-CBB 5597</td>
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<td>Advanced Experimental Molecular Biology II</td>
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</tr>
</tbody>
</table>

Total Credits 30

¹ Elective courses may also be selected from other alternatives approved by the School of Biological Sciences Graduate Programs Committee. A limited number of credit hours of upper-level undergraduate courses may be allowed.

**Emphasis in Bioinformatics**

The emphasis in bioinformatics is a degree option with specific requirements.

This degree option trains students in the fundamental principles of bioinformatics and prepares them for careers in research, medical and corporate settings. Students will learn how to manage and analyze data stored in databases, become familiar with the various computational tools and techniques available to analyze biological data, become familiar with the types of questions and problems within biology that lend themselves to bioinformatics analysis and gain proficiency with a variety of statistical techniques necessary to analyze genomic, proteomic and integrated biological data sets.

Emphasis requirements, in addition to the specified degree requirements.

**Required Electives**

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 5519</td>
<td>Principles of Evolution</td>
<td>3</td>
</tr>
<tr>
<td>MEDB 5501</td>
<td>Biostatistics I</td>
<td>3</td>
</tr>
<tr>
<td>or MIS 5552</td>
<td>Data Base Management</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 5525</td>
<td>Bioinformatics and Data Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 9
Master of Arts in Biology

Not currently accepting applications for the 2018-2019 academic year.

Student Learning Outcomes
Students graduating from this program will:

• Understand basic fundamentals of biology and apply them to clinical anesthesia
• Describe principles of anesthesia in the clinical setting
• Perform clinical procedures necessary to be practicing nurse anesthetist

Degree Requirements
The master of arts program of study requires a minimum of 36 credit hours. No more than 40 percent of the program may be at the 300- to 400-level; the balance must be at the 5500-level or above. BIOLOGY 5592, is required on an approved topic for an extensive investigation with oral presentation. This investigation may be accomplished through literature search or laboratory experimentation. No more than six hours of BIOLOGY 5591, may be applied to this program.

Students typically pursue the master of arts in biology and a certificate in the Truman Medical Center Nurse Anesthesia Program concurrently. For information about admission and degree requirements, students interested in the CRNA certificate should first contact the School of Nurse Anesthesia (http://crna.tmchost.com) at Truman Medical Center, and then contact the School of Biological Sciences. Admission by both programs is required.
Doctor of Philosophy Study

Degree Requirements

The Ph.D. program at UMKC is interdisciplinary. Students interested in studies at the doctoral level in the disciplines of cell biology and biophysics, or molecular biology and biochemistry, should apply to the Interdisciplinary Ph.D. program in the School of Graduate Studies. Students interested in a combination of cell biology and biophysics with molecular biology and biochemistry should apply to our graduate programs at http://sbs.umkc.edu/graduate_application.cfm or by writing to the mailing address at the beginning of this section (p. 647).

Detailed information on the general and discipline-specific admission requirements for the Ph.D. is found in the School of Graduate Studies (p. 1185) section of this catalog, with specific details on the school’s Web site at http://www.umkc.edu/iphd.

Students pursuing Interdisciplinary Ph.D. studies who have selected cell biology and biophysics, or molecular biology and biochemistry as one of their disciplines should consult the School of Graduate Studies (p. 1185) section of this catalog for degree requirements and other academic regulations applicable to their degree program.
School of Computing and Engineering

Robert H. Flarsheim Science and Technology Hall (http://www.umkc.edu/virtualtour/flarsheim-hall.asp)

DST Student Services Center, Room 336
5110 Rockhill Road, Kansas City, MO 64110
Phone: (816) 235-2399
Fax: (816) 235-5159
sce@umkc.edu
http://sce.umkc.edu/

Mailing Address
University of Missouri-Kansas City
School of Computing and Engineering
534 Flarsheim Hall
5110 Rockhill Road
Kansas City, MO 64110-2499

Dean:
Kevin Z. Truman

Associate Dean of Faculty & Research
Masud Chowdhury

Department of Civil and Mechanical Engineering:
Chair:
352 Flarsheim Hall
(816) 235-5550

See CME Catalog (p. 766) and CME Website (http://sce.umkc.edu/cme)

Department of Computer Science Electrical Engineering:
Chair:
Ghulam M. Chaudhry
546 Flarsheim Hall
(816) 235-1193

See CSEE Catalog (p. 815) and CSEE Website (http://sce.umkc.edu/about/computer-science-electrical-engineering)

History
The University has offered engineering degree programs since 1956. Increased technology demands during the mid-80s, combined with a generous gift from United Telecom (now Sprint), led to the development of UMKC's high-tech Computer Science and Telecommunications Program in 1984. These programs were combined in 2001 to form the School of Computing and Engineering (SCE).

Mission
The mission of the School of Computing and Engineering is to provide competitive educational opportunities and focused research in computing and engineering generating the technical work force and research needed for economic development.

Departments and Degree Programs
The School of Computing and Engineering has two departments:

- Civil and Mechanical Engineering (http://www.sce.umkc.edu/cme)
- Computer Science Electrical Engineering (http://sce.umkc.edu/about/computer-science-electrical-engineering)

Each department offers undergraduate and graduate degrees. The Civil and Mechanical Engineering Department offers B.S. in Civil Engineering, B.S. in Mechanical Engineering – both accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org, M.S. in Civil Engineering, and M.S. in Mechanical Engineering. The Computer Science Electrical Engineering Department offers B.A./B.S. in Computer Science, B.S. in Electrical & Computer Engineering, Bachelor of Information Technology (B.I.T), M.S. in Computer Science, and M.S. in Electrical Engineering. The B.S. in Computer Science and the Bachelor of Information Technology degrees are accredited by the Computing Accreditation Commission of ABET,

The School also participates in UMKC’s Interdisciplinary Ph.D. program through four disciplines: computer science, electrical and computer engineering, engineering (for civil and mechanical engineering) and telecommunications and computer networking. (See the School of Graduate Studies section of this catalog for details about the Interdisciplinary Ph.D. Program.)

Financial Assistance
The University has several financial aid programs, scholarships and awards for the benefit of our students: see https://finaid.umkc.edu/ for opportunities available to all UMKC students. There are several School of Computing and Engineering scholarships available exclusively for SCE students. To be eligible, applicants must be accepted to both UMKC and SCE degree program. All award recipients must maintain full-time student enrollment (minimum 12 credit hours/semester for undergraduate; 9 credit hours/semester per graduate) throughout the academic year of the award.

Applications are due by March 1 for full consideration for the next fall semester’s scholarship awards; however applications are accepted and kept on file year-round should additional awards become available. Current SCE scholarship recipients must re-apply each year by March 1 to be considered for the next academic year. More information about the scholarship process is available at https://sce.umkc.edu/affordability.

The Dean’s International Scholar Award (DISA) is available to SCE international students. DISA awards are determined upon admission; therefore, no specific application form is required. Students must maintain at least a 3.0 GPA and remain in good standing to continue to receive the DISA.

Assistantships
There are Graduate Research Assistantships available through various faculty conducting funded research, and information on these can be obtained from individual faculty. Most faculty with funded research programs will award research assistantships to students whose performance they have been able to observe in the class room.

A limited number of graduate assistantships are available to fully-enrolled graduate students with excellent academic performance and solid communications skills.

Applications are available through the academic departments.

Faculty
Department of Civil and Mechanical Engineering
Katherine H. Bloemker; associate teaching professor; B.S., M.S. (Stanford University); Ph.D. (University of Missouri-Kansas City)

ZhiQiang Chen; 2,3, associate professor; B.S. (Southeast University, Nanjing, China); M.S. Michigan Technological University); Ph.D. (University of California-San Diego).

Travis Fields; 2,3, assistant professor; B.S., M.S., Ph.D. (University of Nevada, Reno).

Ceki Halmen; 2,3, assistant professor; B.S. (Bogazici University, Istanbul, Turkey); M.S., Ph.D. (Texas A&M University).

Megan Hart; assistant professor; B.S. (Western Washington University), B.S., M.S., Ph.D. (Missouri University of Science and Technology); R.G.

John T. Kevern; 2,3, associate professor; B.S. (University of Wisconsin-Platteville); M.S., Ph.D. (Iowa State University); LEED AP.

Greg King; 2,3, associate professor; B.S., M.S., Ph.D. (University of Kansas).

Mark F. McClernon; associate professor; B.S. (Rockhurst University); M.S., Ph.D. (University of Notre Dame); P.E.

Amirfarhang Mehdizadeh; 2,3, assistant professor; B.S. (University of Tehran, Iran); M.S., Dr.Ing. (Darmstadt University of Technology, Germany)

Deborah J. O’Bannon; 2,3, professor; B.S. (Massachusetts Institute of Technology); M.Eng. (Manhattan College); Ph.D. (University of Iowa); P.E.

Jerry E. Richardson; 2,3, associate professor; B.S., M.S., Ph.D. (Colorado State University); P.E.

Mary Cristina Ruales Ortega; associate teaching professor; B.S. (Universidad del Valle, Colombia); M.S. (University of Puerto Rico); Ph.D. (Florida International University)

William E. Stewart, Jr.; professor emeritus; B.S., M.S., Ph.D. (University of Missouri-Rolla); P.E. (Retired).

Antonis Stylianou; assistant professor; B.S., M.S., Ph.D. (University of Kansas).
Ganesh Thiagarajan\textsuperscript{2,3}; professor; B.Tech., M.Tech. (Indian Institute of Technology-Madras); Ph.D. (Louisiana State University-Baton Rouge).

Kevin Z. Truman\textsuperscript{2,3}; dean, professor, School of Computing & Engineering, B.A. (Monmouth College); B.S., M.S. (Washington University); Ph.D. (University of Missouri-Rolla).

Department of Computer Science and Electrical Engineering

Cory Beard\textsuperscript{2,3}; associate professor; B.S., M.S. (University of Missouri-Columbia); Ph.D. (University of Kansas).

Deb Chatterjee\textsuperscript{2,3}; associate professor; B.E.Tel.E. (Jadavpur University, India); M.Tech. (India Institute of Technology-Kharagpur, India); M.A.Sc. (Concordia University, Canada); Ph.D. (University of Kansas).

Ghulam M. Chaudhry\textsuperscript{2,3}; chair, dept. of computer science electrical engineering; professor; B.S. (University of Punjab, Pakistan); M.S. (B.Z. University, Pakistan); M.S., Ph.D. (Wayne State University).

Baek-Young Choi\textsuperscript{2,3}; associate professor; B.S. (Pusan National University, Korea); M.S. (Pohang University of Science and Technology, Korea); Ph.D. (University of Minnesota).

Masud H. Chowdhury\textsuperscript{2,3}; associate professor; B.S. (Bangladesh U. of Engineering & Technology, Dhaka 1000, Bangladesh); Ph.D. (Northwestern University).

Reza Derakhshani\textsuperscript{2,3}; associate professor; B.S. (Iran University of Science and Technology); M.S., Ph.D. (West Virginia University).

Deendayal "Dinakar" Dinakarpandian\textsuperscript{2,3}; associate professor; M.D. (Jawaharlal Institute of Post-Graduate Medical Education and Research, Pondicherry, India); Ph.D. (Case Western Reserve University); M.S. (University of Missouri-Kansas City).

Preetham Goli\textsuperscript{2}; assistant teaching professor; B.Tech (Andhra University, India), Ph.D. (University of Houston)

Yijie Han\textsuperscript{2,3}; associate professor; B.S. (University of Science and Technology of China), Ph.D. (Duke University).

Brian Hare; associate teaching professor; M.S. (University of Houston and University of Missouri-Kansas City).

Lein Harn\textsuperscript{2,3}; professor; B.A. (National Taiwan University); M.S. (University of New York at Stony Brook), Ph.D. (University of Minnesota).

Ahmed M. Hassan\textsuperscript{2,3}; assistant professor; B.S., M.S. (Cairo University); Ph.D. (University of Arkansas)

Richard G. Hetherington; founding director, computer science program, and professor emeritus; B.A. (Brothers College, Drew University); M.S., Ph.D. (University of Wisconsin-Madison).

Faisal Khan\textsuperscript{2,3}; associate professor; B.S. (Bangladesh University of Engineering and Technology); M.S. (Arizona State University); Ph.D. (University of Tennessee, Knoxville)

Kevin Kirkpatrick; associate teaching professor; B.S. (University of Missouri-Rolla); M.S. (University of Missouri - Columbia).

Jerome Knopp; associate professor; B.S., M.S., Ph.D. (University of Texas-Austin).

Mohammad Kuhail; assistant teaching professor; B.S., (Islamic University of Gaza); M.S. (University of York, York, UK); Ph.D. (University of Copenhagen).

Vijay Kumar\textsuperscript{2,3}; professor; B.S., M.S. (Ranchi University); Graduate Dipl. (Cambridge University); M.S. (Manchester University); Ph.D. (Southampton University).

Yugyung Lee\textsuperscript{2,3}; professor; B.S. (University of Washington); Ph.D. (New Jersey Institute of Technology).

Zhu Li\textsuperscript{2,3}; associate professor; B.S. (Sichuan University, China); M.S. (University of Louisiana-Lafayette) Ph.D. (Northwestern University)

Deepankar (Deep) Medhi\textsuperscript{2,3}; curators’ professor; B.Sc. (Cotton College, Gauhati University); M.Sc. (University of Delhi); M.S., Ph.D. (University of Wisconsin-Madison).

Ken Mitchell\textsuperscript{2,3}; associate professor; B.M., M.M. (Indiana University); M.S., Ph.D. (University of Missouri-Kansas City).

Mostafizur Rahman\textsuperscript{2,3}; assistant professor; B.S. (North South University, Bangladesh); Ph.D. (University of Massachusetts-Amherst)

Praveen Rao\textsuperscript{2,3}; associate professor; B.Tech (University of Pune, India); M.S., Ph.D. University of Arizona-Tucson.

Xiaojun Shen\textsuperscript{2,3}; professor; B.S. (Quinghua University); M.S. (East China Institute of Technology); Ph.D. (University of Illinois-Urbana).

David G. Skitek; assistant professor emeritus; B.S. (University of Missouri-Rolla); M.S.E., Ph.D. (Arizona State University); P.E. (Retired)
Sejung Song$^{2,3}$; associate professor; B.S. (Pusan National University, Korea); M.S., Ph.D. (University of Minnesota - Twin Cities).

Appie van de Liefvoort$^{2,3}$; professor; Kandidaats; Doctorandus (Katholieke Universiteit, Nijmegen, The Netherlands); M.S., Ph.D. (University of Nebraska-Lincoln).

Yongjie Zheng$^{2,3}$; assistant professor; B. Eng. (Tsinghua University, Beijing, China); M. Phil. (The Hong Kong Polytechnic University, Hong Kong); Ph.D. (University of California, Irvine).

CIV-ENGR 111 First Year Cornerstone Credits: 3
An exploration of the diverse emphasis specific career opportunities of Civil Engineers, with a goal of providing students the needed fundamental skills, knowledge and resources for identifying the most appropriate career path(s) consistent with the student’s interests, skills, and objectives.

CIV-ENGR 190 Special Topics Credits: 1-3
Selected introductory topics in the area of computing. May be repeated for credit when topic varies.

CIV-ENGR 211 The Engineering Enterprise Credits: 3
The engineering enterprise course covers the essential topic of engineering economics for engineering students. The primary objective of this course is to motivate the student to think as a blend of an engineer and a businessperson to make them more effective decision makers related to engineering applications.

CIV-ENGR 275 Engineering Statics Credits: 3
Fundamentals of statics; static equilibrium; internal forces; introduction to elements of mechanics of elastic materials, and properties of areas. **Prerequisites:** PHYSICS 240.

CIV-ENGR 276 Strength Of Materials Credits: 3
The course introduces and emphasizes the concepts and analysis methods for stress and strain, torsion, bending and shear stresses in beams, combined stresses, and deflection theory using a calculus based methodology. Introduction to buckling and energy methods may be included. **Prerequisites:** CIV-ENGR 275.

CIV-ENGR 318 GIS for Engineers Credits: 3
This course covers the fundamental concepts and methods for use of GIS software used to solve engineering applications and problems. The course uses module based practical learning to apply and integrate foundational knowledge, develop the skills required to model various types of imagery data, incorporate this data into projects for management and design, and provide the skills necessary for students to depict ideas and design graphically. A personal computer capable of running the software is required for the course. Non-engineering majors by instructor permission only. **Prerequisites:** MEC-ENGR 130 and CIV-ENGR 319.

CIV-ENGR 319 Engineering Computation and Statistics Credits: 3
A review of descriptive statistics, statistical distribution functions and application to engineering problems. Introduction to hypothesis testing, analysis of variance, correlation/regression and design of factorial experiments. **Prerequisites:** MEC-ENGR 219 (or corequisite), and MATH 268.

CIV-ENGR 320 Introduction to Factorial Design Credit: 1
Concepts and techniques of ANOVA and factorial design to supplement standard undergraduate statistics courses. Recommended preparation: Undergraduate statistics course.

CIV-ENGR 321 Structural Analysis Credits: 4
This course introduces the basic analysis and computer methods that are required to analyze basic structural elements and simple structures. Topics covered in this course include design loads, analysis of statically determinate beams, frames and trusses, shear and moment diagrams, influence diagrams, beam deflections, statically indeterminate structures (beams and frames), displacement methods, introduction to energy and matrix methods. **Prerequisites:** CIV-ENGR 276.

CIV-ENGR 323 Structural Steel Design Credits: 3
Basic principles of structural steel design. Design of beams, axially loaded members, columns, and bolted and welded connections. **Prerequisites:** CIV-ENGR 321.

CIV-ENGR 335 Soil Mechanics Credits: 3
Detailed study of physical and mechanical properties of soil governing its behavior as an engineering material. **Prerequisites:** CIV-ENGR 276, CHEM 211, CHEM 211L, Machine Shop Safety.
CIV-ENGR 342 Water and Wastewater Treatment Processes Credits: 3
Methods for determining and characterizing water quality, effects of pollution on streams and lakes, and an introduction to engineering systems for the distribution, collection and treatment of water and wastewater.
Prerequisites: CIV-ENGR 351, CHEM 211 and CHEM 211L.

CIV-ENGR 351 Fluid Mechanics Credits: 3
Concepts of the statics and dynamics of fluids, with emphasis on principles of continuity, momentum and energy. Boundary layers, dimensional analysis and drag are covered briefly. Thorough treatment of pipe flow.
Prerequisites: MATH 345 or MEC-ENGR 272, MEC-ENGR 285.

CIV-ENGR 357 Engineering Hydraulics Credits: 3
Analysis and design of closed conduit systems for water supply; fundamentals of open channel flow; principles of pumping and hydropower generation; transients and control of surge pressures in pipelines.
Prerequisites: CIV-ENGR 351.

CIV-ENGR 378WI Civil Engineering Materials Credits: 3
This course provides students with a working knowledge of the design and performance of Asphaltic Concrete (AC) and Portland Cement Concrete (PCC) mixtures through understanding the properties and requirements of the component materials and their effects on subsequent performance. An understanding of the design, production process, construction, durability, and operations and maintenance will be provided. A significant portion of this course requires hands-on laboratory testing and analysis. Roadway and highway pavements will provide a primary context within which these concrete systems will be studied. This course is classified as writing intensive (WI) will involve a significant amount of writing practice to be able to effectively communicate in a manner fitting a young engineering graduate of UMKC.
Prerequisites: CHEM 211, CHEM 211L, CIV-ENGR 276, Machine Shop Safety, RooWriter.

CIV-ENGR 390 Engineering Coop/Internship Credits: 0
Students may participate in structured Engineering Coop/Internship under the supervision of employer. They must carry out significant professional responsibilities and whatever additional assignments are determined by the employer.
Prerequisites: CIV-ENGR 211, MEC-ENGR 285.

CIV-ENGR 3EP UL Civil Engineering Elective Credits: 99
Transfer credit

CIV-ENGR 400 Problems Credits: 1-4
Directed investigation of civil engineering problems.

CIV-ENGR 401ES Special Topics in Civil Engineering Credits: 3
Prerequisites: CIV-ENGR 335.

CIV-ENGR 401HA Hydrologic Analysis and Design Credits: 3
Practical implementation of hydrologic and hydraulic system design in accordance with published design criteria and using methods and numerical modeling accepted by local, state, and national government agencies.
Prerequisites: CIV-ENGR 357.

CIV-ENGR 401J Project Finance Credits: 1-3
This class introduces students to the financial concepts faced by engineers in the businesses in which they work and for the projects to which they are assigned. Throughout the course students are reminded of the impact of two key variables – money and time – on their work. While not attempting to turn good engineers into mediocre accountants, the course includes a strong emphasis on managerial accounting. Students will learn how to read and apply financial statements and how to use these same financial concepts in developing pro formas to evaluate and support major capital investments. The effect of time on the value of money, appropriate discount factors, and the internal rate of return will be explored in the class. Students will learn to combine these financial factors with electronic spreadsheets to evaluate business opportunities and practices. All students will be required to develop a comprehensive financial model to evaluate/justify a real world capital project.

CIV-ENGR 401PM Project Management of Integrated Design and Construction Credits: 3
Provide a body of knowledge that includes the principles, knowledge areas, skills, and tools applicable to successful project management for the performance of integrated design and construction of capital projects, specifically as applicable to the post-award period. This post-award period is the time from the formal Project award by the owner through Project design and construction, testing, commissioning, close-out and completion of the Project warranties.

CIV-ENGR 401SD Special Topics In Civil Engineering Credits: 3
Study of soil behavior under cyclic and dynamic loading conditions. Foundation design for vibratory loadings. Introductory earthquake engineering including dynamic ground response for determination of dynamic soil properties. Evaluation of soil liquefaction potential during earthquakes by both laboratory and in situ filed methods. Design consideration for embankments and earth retaining structures under seismic loading conditions. Construction blasting and vibration effects on underground systems.
Prerequisites: CIV-ENGR 335.
CIV-ENGR 401SV Topics in Civil Engineering Credit: 1
This course provides a fundamental introduction to the elements of surveying. Basics including terminology, coordinate systems, equipment, legal descriptions, and calculations will be taught in the classroom. Field laboratory sessions will introduce the students to setting up basic equipment, running a level loop, and laying out a site based on plan designs.

CIV-ENGR 404 Project Management of Integrated Design and Construction Credits: 3
Provide a body of knowledge that includes the principles, knowledge areas, skills, and tools applicable to successful project management for the performance of integrated design and construction of capital projects, specifically as applicable to the post-award period. This post-award period is the time from the formal project award by the owner through project design and construction, testing, commissioning, close-out and completion of the project warranties.

CIV-ENGR 405 Capital Project Delivery Methods Credits: 3
Provide a body of knowledge that acquaints students with the capital project delivery methods in both public and private business sectors of the U.S design – construction industry. Project delivery means how a capital project comprising both design and construction is planned, procured, contracted and implemented by an owner to achieve desired objectives. Delivery methods discussed in this class include traditional design – bid-build, design – build, design-build plus added services such as operations and maintenance, CM @ Risk and other approaches. Roles and responsibilities of owners, owner consultants, and design and construction firms are presented and discussed.

CIV-ENGR 409 Fundamentals of Engineering Review Credit: 1
This course consists of a series of lectures and is intended as a review class for all the subjects included in the Fundamentals of Engineering exam. Classes specifically focus on the review of equations and formulas included in the reference handbook published by NCEES.

CIV-ENGR 411 Civil Engineering Systems Design I Credits: 2
Continuation of CIV-ENGR 411.
Prerequisites: CIV-ENGR 411, RooWriter.

CIV-ENGR 415 Engineering Leadership and Ethics Credits: 3
Comprehensive and realistic design project using the systems approach. Design choices and their effect upon the environment. Design constraints include constructability, minimization of environmental impact and cost-effectiveness. Managerial and professional aspects of design practice.
Prerequisites: CIV-ENGR 497.
Co-requisite: CIV-ENGR 422WI.

CIV-ENGR 416 Civil Engineering Systems Design II Credits: 3
Continuation of CIV-ENGR 411.
Prerequisites: CIV-ENGR 411, RooWriter.

CIV-ENGR 421 Matrix Methods of Structural Analysis Credits: 3
Basic principles of reinforced concrete design. Design of beams for flexure and shear; design of short and slender columns. Bond stress development. Footing design.
Prerequisites: CIV-ENGR 321, RooWriter.

CIV-ENGR 423 Advanced Structural Steel Design Credits: 3
The basic components of this class are matrix theories and applied computer analysis methods using a computer-based structural analysis software. These include: (1) study of matrix formulation of direct stiffness method, virtual work principle and formulation of displacement-based frame elements, theories and significance of geometric and material nonlinearity; (2) Sap2000-based analysis of 2D/3D trusses and 2D/3D frames considering different loading and material/geometric nonlinearity.
Prerequisites: CIV-ENGR 321.

CIV-ENGR 425 Prestressed Concrete Credits: 3
Design and behavior of prestressed concrete structures; material and system of pretensioned and post tensioned systems; prestress losses; flexure, shear, bond, deflections and partial prestress in determinate structures; indeterminate beams-introduction.
Prerequisites: CIV-ENGR 422WI.

CIV-ENGR 427 Advanced Reinforced Concrete Design Credits: 3
Advanced topics in the design of footings, retaining walls, two-way floor slabs, torsion and continuous structures, shear friction, strut and tie design, precast design.
Prerequisites: CIV-ENGR 422WI.

CIV-ENGR 429 Design of Structures for Blast and Fire Credits: 3
General overview of Blast Design; risk assessment and design criteria; simplifies Blast Effects Analysis; ground shock, material response; antiterrorism design considerations; weapons effects and mitigation; internal explosions; progressive collapse analysis; and introduction to Fire Design.
CIV-ENGR 431 Fundamentals of Geomaterial Characterization Credits: 3
A geomaterial is any construction material comprised primarily of soil. This course overviews state-of-the-art instrumental techniques for analysis of the physio-chemical properties of soils, aggregates, hydraulic concrete, and asphaltic concrete. Evaluation techniques will be applied to determining beneficial reuse opportunities for industrial by-product materials from the Kansas City region.
**Prerequisites:** CIV-ENGR 335, CIV-ENGR 378WI.

CIV-ENGR 432 Foundation Engineering Credits: 3
Design of basic foundation structures, footings, retaining walls, pile foundations, dams.
**Prerequisites:** CIV-ENGR 335.

CIV-ENGR 436 Advanced Soil Mechanics Credits: 3
Theoretical soil mechanics as applied to solution of specific engineering problems.
**Prerequisites:** CIV-ENGR 335.

CIV-ENGR 442 Hydraulic Structures Credits: 3
A review of the history and hydraulic design procedures for a variety of hydraulic structures including spillways, water measurement structures, canal structures and energy dissipation structures.
**Prerequisites:** CIV-ENGR 452.

CIV-ENGR 446 Limnology Credits: 3
Physical, biological and chemical issues important in surface fresh waters. Includes carbonate chemistry, algal assay and thermocline analysis.
**Prerequisites:** CHEM 211, MATH 345.

CIV-ENGR 447 Contracts and Law for Engineers Credits: 3
This course covers a broad range of substantive legal topics giving the student a grounding in the legal implications of certain situations that they may encounter during their careers. The course includes coverage of basic contract law, environmental regulations and compliance, construction law, antitrust law, intellectual property law, civil procedure, employment law, business entities (corporate law) product liability and criminal law and procedure. The objective of the course is to provide students with a fundamental understanding of the wide range of federal and state laws governing behavior in our complicated and rule of law driven society.

CIV-ENGR 449 Environmental Compliance, Auditing and Permitting Credits: 3
This course provides a high level overview of the most important statutes that have been enacted to protect the environment. The course covers regulation of hazardous waste, the Clean Air and Clean Water Acts, the Resource Conservation and Recovery Act, the All Appropriate Inquiry Rule and the law addressing sites contaminated with hazardous substances and the technology options employed to remediate those sites. In addition, the course provides coverage of environmental audits and emergency planning for extremely hazardous substances, the regulation of underground storage tanks, safe drinking water and the National Environmental Policy Act among other statutes.

CIV-ENGR 452 Hydraulics of Open Channels Credits: 3
This is a first course in the fundamentals of open channel (free surface) water flow. Over ninety-nine percent of all the water that is moved on the planet’s surface is by free surface flow. Study of free surface flow is essential to the study of storm water drainage systems, flood control, water and wastewater treatment and the study of the form and processes of river evolution. This class provides the fundamental physical principles of free surface flow as a prelude to a significant number of other topics that pertain to engineering and geomorphic analysis.
**Prerequisites:** CIV-ENGR 351.

CIV-ENGR 453 Hydraulics and Variability of Rivers Credits: 3
Introduction to the concepts of alluvial channel behavior, evolution and change due to natural and man-induced modifications to streams and watersheds. Numerous case studies of river behavior are studied from the perspective of hydraulics, geomorphology and sediment transport.
**Prerequisites:** CIV-ENGR 357.

CIV-ENGR 454 River Stability and Scour Credits: 3
Bridge hydraulics, stream stability, scour at bridge piers and abutments, hydraulic modeling of floods, countermeasures for protection of bridge infrastructure.
**Prerequisites:** CIV-ENGR 452.

CIV-ENGR 456 Urban Hydrology Credits: 3
Analysis of urban drainage systems in accordance with published municipal criteria. This course is an in-depth course for senior undergraduate students interested in the hydrological sciences and for graduate students specializing in water resources. Specifically this course will focus on the engineering procedures and techniques specified by municipalities to design and maintain efficient, safe, storm drainage systems. This course also focuses on the unique issues associated with estimating and designing for rainfall/runoff in urban metropolitan areas, including channel and reservoir routing of floods through stream channels, retention structures, culverts, and storm sewers.
**Prerequisites:** CIV-ENGR 357.
CIV-ENGR 463 The Engineer in Society Credits: 3
This course introduces professional, ethical, and legal concepts of the professional practice of engineering, and the role of the consulting engineer, specifically in the A/E/C industry during the design, procurement, and construction processes. A conceptual framework is developed for understanding the industry standard agreements (AIA, EJCDC, ConCensus) and the various participants roles and duties in project execution. The engineer’s "professional standard of care" is examined and revisited throughout the semester, specifically what it means to be a “Professional Engineer”. Emphasis is placed on project and contract management and the applicable law. Skills are developed in finding online resources of law, legal, and practice advice relevant to the practice of engineering and the construction industry.

CIV-ENGR 466 Green Building and Sustainable Infrastructure Credits: 3
This class will discuss various green rating systems for buildings and infrastructure. Upon completion of this course students will be prepared for the LEED Green Associate Exam. The course will also discuss infrastructure project sustainability from a life cycle perspective. A semester project will involve stormwater management using "green" techniques and methods to mitigate the urban heat island. Upon completion of the course, students will better understand what sustainability means and how it applies in the context of our built environment and have a good idea of how technology will impact our sustainable future.

Prerequisites: Junior standing.

CIV-ENGR 467 Introduction to Construction Management Credits: 3
Structure of the construction industry; construction drawings and specifications; estimating and bidding; construction contracts, bonds and insurance; planning and scheduling of construction operations; project management; computer techniques.

Prerequisites: MATH 345.

CIV-ENGR 468 Construction Planning and Scheduling Credits: 3
This course is intended to provide an in-depth examination of the construction planning and scheduling process, as it relates to civil engineering projects. Topics will include planning and scheduling of construction operations by the critical path method, Network diagramming, scheduling computations, and time-cost trade-offs. Manpower and equipment leveling. Computer and noncomputer techniques.

Prerequisites: CIV-ENGR 467.

CIV-ENGR 469 Construction Methods and Equipment Credits: 3
Introduction to methods used to plan, construct, and manage heavy civil projects. Topics will include development, project control, equipment productivity, earthmoving fundamentals, formwork design, and other issues in heavy civil projects.

Prerequisite: CIV-ENGR 467.

CIV-ENGR 470 Corrosion Engineering Credits: 3
This course will cover the physical interaction of metallic materials with their environments, called corrosion. Corrosion is an electrochemical process and the thermodynamics and kinetics of corrosion processes will be discussed. Students will be expected to identify different forms of corrosion and be able to select appropriate materials for their working environment to prevent corrosion related problems. Second half of the class will concentrate on corrosion of metals in concrete and prevention methods.

Prerequisites: CHEM 211, CHEM 211L, CIV-ENGR 378WI.

CIV-ENGR 471 Advanced Portland Cement Concrete Credits: 3
This course will cover topics such as cement chemistry, concrete proportioning, aggregates, mineral and chemical admixtures, fresh and hardened properties of concrete, and durability of concrete. Design and proportioning of concrete mixtures for desired fresh and hardened properties will be emphasized. Specialty concrete types such as high strength/high performance concrete, lightweight concrete, pervious concrete, high volume fly ash concrete, and fiber reinforced concrete will also be covered.

Prerequisites: CHEM 211, CHEM 211L, CIV-ENGR 378WI.

CIV-ENGR 473 Durability of Civil Engineering Materials Credits: 3
This course will explore the identification, causes of, and remediation of material-related durability deterioration in civil engineering projects. The primary focus will be on reinforced concrete, plain concrete, and soil for a variety of applications. Course content will be delivered primarily through laboratory activities and handouts. Lab activities will use advanced analysis techniques and help the students identify and measure deterioration mechanisms. Various non-destructive evaluation techniques will be discussed. Students have hands on experiences with samples production, data collection, and data analysis for all of the lab activities.

Prerequisites: CIV-ENGR 335, CIV-ENGR 378WI.

CIV-ENGR 475 Seismic Design of Structures Credits: 3
Introduction to basic analysis and design principles for the seismic design of buildings (concrete, steel, wood). General seismic principles, codes and loads, static lateral force procedure, dynamic lateral force procedure, topics in rigidities of buildings.

Prerequisites: CIV-ENGR 323 (or CIV-ENGR 422WI), MEC-ENGR 285.

CIV-ENGR 481 Highway and Traffic Engineering Credits: 3
Principles of highway engineering and traffic analysis, road/vehicle performance, geometric alignment of highways, traffic analysis and queuing theory, signal design, statistical analysis of traffic data and highway drainage.

Prerequisites: MEC-ENGR 285.
CIV-ENGR 484 Pavement Materials Design, Maintenance, and Rehabilitation Credits: 3
Traffic loading and volume, stress and deflection, characterization of pavement materials, design of flexible and rigid pavements, design of overlays, evaluation of pavement performance, maintenance techniques, and rehabilitation options.
**Prerequisites:** CIV-ENGR 335, CIV-ENGR 378WI.

CIV-ENGR 487 Applied Finite Element Analysis Credits: 3
The study of advanced simulation techniques for the solution to engineering problems. The use of Finite Element Method toward solving mechanical, structural, vibration and potential flow problems will be explored. Current commercial simulation tools will be used extensively.
**Prerequisites:** MEC-ENGR 272 and MEC-ENGR 130.

CIV-ENGR 491 Internship Credits: 6
For International students who must register to cover off-campus employment which is approved as related to their degree by their departmental advisor and ISAO.

CIV-ENGR 497 Engineering Hydrology Credits: 3
Fundamental concepts of hydrology in engineering; computation principles of runoff from rainfall; measurement of hydrologic quantities; quantitative and statistical estimation of design stream-flow magnitude and frequency; principles of unsteady routing of hydrographs.
**Prerequisites:** CIV-ENGR 319, CIV-ENGR 351.

CIV-ENGR 5500 Problems Credits: 1-6
Supervised investigation in civil engineering to be presented in the form of a report.
**Prerequisites:** Graduate standing.

CIV-ENGR 5501 Advanced Topics in Civil Engineering Credits: 1-3
Current technical developments in civil engineering.

CIV-ENGR 5501AE Advanced Topics in Civil Engineering Credits: 1-3

CIV-ENGR 5501AS Advanced Topics in Civil Engineering Credits: 1-3

CIV-ENGR 5501CP Advanced Topics in Civil Engineering Credits: 1-3
Advanced Topics in Civil Engineering

CIV-ENGR 5501DM Advanced Topics in Civil Engineering - Capital Project Delivery Methods Credits: 1-3
Provide a body of knowledge that acquaints students with the capital project delivery methods in both public and private business sectors of the U.S design – construction industry. Project delivery means how a capital project comprising both design and construction is planned, procured, contracted and implemented by an owner to achieve desired objectives. Delivery methods include traditional design – bid- build, design – build, design-build plus added services such as operations and maintenance, CM @ Risk and other approaches. Roles and responsibilities of owners, owner consultants, and design and construction firms are presented and discussed. Owner procurement approaches, project risk allocation, and how design and construction firms compete for projects will be examined. Students will contribute to and evaluate owner procurement documents such as requests for qualifications (RFQ) and requests for proposal (RFP).

CIV-ENGR 5501DS Advanced Topics in Civil Engineering Credits: 1-3

CIV-ENGR 5501ES Advanced Topics in Civil Engineering Credits: 1-3
Advanced Topics in Civil Engineering.
**Prerequisites:** CIV-ENGR 335.

CIV-ENGR 5501FM Advanced Topics in Civil Engineering Credits: 1-3
Advanced Topics in Civil Engineering

CIV-ENGR 5501G Advanced Topics in Civil Engineering Credits: 1-3

CIV-ENGR 5501GB Advanced Topics in Civil Engineering Credits: 1-3

CIV-ENGR 5501GS Advanced Topics in Civil Engineering Credits: 1-3

CIV-ENGR 5501HA Advanced Topics in Civil Engineering Credits: 3
Practical implementation of hydrologic and hydraulic system design in accordance with published design criteria and using methods and numerical modeling accepted by local, state, and national government agencies.
**Prerequisites:** CIV-ENGR 357.

CIV-ENGR 5501IR Adv Topics in Civil Engineering Credits: 1-3
Adv Topics in Civil Engineering
CIV-ENGR 5501J Advanced Topics In Civil Engineering Credits: 1-3
This class introduces students to the financial concepts faced by engineers in the businesses in which they work and for the projects to which they are assigned. Throughout the course students are reminded of the impact of two key variables – money and time – on their work. While not attempting to turn good engineers into mediocre accountants, the course includes a strong emphasis on managerial accounting. Students will learn how to read and apply financial statements and how to use these same financial concepts in developing pro formas to evaluate and support major capital investments. The effect of time on the value of money, appropriate discount factors, and the internal rate of return will be explored in the class. Students will learn to combine these financial factors with electronic spreadsheets to evaluate business opportunities and practices. All students will be required to develop a comprehensive financial model to evaluate/justify a real world capital project.

CIV-ENGR 5501L Advanced Topics In Civil Engineering Credits: 1-3
CIV-ENGR 5501M Advanced Topics in Civil Engineering Credits: 1-3
Advanced Topics in Civil Engineering
CIV-ENGR 5501MD Advanced Topics in Civil Engineering Credits: 1-3
Advanced Topics in Civil Engineering
CIV-ENGR 5501MM Advanced Topics in Civil Engineering Credits: 1-3
Advanced Topics in Civil Engineering
CIV-ENGR 5501MX Advanced Topics in Civil Engineering Credits: 1-3
Advanced Topics in Civil Engineering
CIV-ENGR 5501PM Advanced Project Management of Integrated Design and Construction Credits: 3
Provide a body of knowledge that includes the principles, knowledge areas, skills, and tools applicable to successful project management for the performance of integrated design and construction of capital projects, specifically as applicable to the post-award period. This post-award period is the time from the formal Project award by the owner through Project design and construction, testing, commissioning, close-out and completion of the Project warranties.

CIV-ENGR 5501SP Advanced Topics In Civil Engineering Credits: 1-3
CIV-ENGR 5501SW Advanced Topics in Civil Engineering Credits: 1-3
CIV-ENGR 5504 Project Management of Integrated Design and Construction Credits: 3
Provide a body of knowledge that includes the principles, knowledge areas, skills, and tools applicable to successful project management for the performance of integrated design and construction of capital projects, specifically as applicable to the post-award period. This post-award period is the time from the formal Project award by the owner through Project design and construction, testing, commissioning, close-out and completion of the Project warranties.

CIV-ENGR 5505 Capital Project Delivery Methods Credits: 3
Provide a body of knowledge that acquaints students with the capital project delivery methods in both public and private business sectors of the U.S design – construction industry. Project delivery means how a capital project comprising both design and construction is planned, procured, contracted and implemented by an owner to achieve desired objectives. Delivery methods include traditional design – bid- build, design – build, design-build plus added services such as operations and maintenance, CM @ Risk and other approaches. Roles and responsibilities of owners, owner consultants, and design and construction firms are presented and discussed. Owner procurement approaches, project risk.

CIV-ENGR 5515 Engineering Leadership & Ethics Credits: 3
Analysis of leadership, including 360-degree assessment of students’ leadership. Discussion of leadership cases and application to engineering careers. Frequent analysis of engineering ethics cases using the NSPE Code.
Prerequisites: Graduate status.

Cross Listings: CIV-ENGR 415.

CIV-ENGR 5521 Matrix Methods of Structural Analysis Credits: 3
An introduction to the fundamentals of stiffness and flexibility methods for analysis of truss and frame structures. Application of the computer programs to three dimensional structures.
Prerequisites: CIV-ENGR 321.

Cross Listings: CIV-ENGR 421.
CIV-ENGR 5523 Advanced Structural Steel Design Credits: 3
Design of steel building structures. Topics include composite deck and beam design, stability design, plastic design, plate girder design, simple and eccentric shear connections, and partial and fully restrained moment resistant connections.
Prerequisites: CIV-ENGR 323.

CIV-ENGR 5526 Prestressed Concrete Credits: 3
Design and behavior of prestressed concrete structures; material and system or pretensioned and post tensioned systems; prestress losses; flexure, shear, bond, deflections and partial prestress in determinate structures; indeterminate beams-introduction.
Prerequisites: CIV-ENGR 422WI.

CIV-ENGR 5527 Advanced Reinforced Concrete Design Credits: 3
Advanced Topics in the design of footings, retaining walls two way floor slabs, torsion and continuous structures, shear friction, strut and tie design, precast design.
Prerequisites: CIV-ENGR 422WI.

Cross Listings: CIV-ENGR 427.

CIV-ENGR 5529 Advanced Design of Structures for Blast and Fire Credits: 3
General overview of Blast Design; risk assessment and design criteria; simplified Blast Effects Analysis; ground shock, material response; antiterrorism design considerations; weapons effects and mitigation; internal explosions; progressive collapse analysis; and introduction to Fire Design.

CIV-ENGR 5531 Fund of Geomaterial Characterization Credits: 3
A geomaterial is any construction material comprised primarily of soil. This course overviews state-of-the-art instrumental techniques for analysis of the physio-chemical properties of soils, aggregates, hydraulic concrete, and asphaltic concrete. Evaluation techniques will be applied to determining beneficial reuse opportunities for industrial by-product materials from the Kansas City region. Prerequisites are CE 335 Soil Mechanics and CE378 Civil Engineering Materials, or equivalent. 3 credit hours.
Prerequisites: CIV-ENGR 335, CIV-ENGR 378WI.

CIV-ENGR 5532 Foundation Engineering Credits: 3
Design of basic foundation structures, footings, retaining walls, pile foundations, dams.
Prerequisites: CIV-ENGR 335.

Cross Listings: CIV-ENGR 432.

CIV-ENGR 5536 Advanced Soil Mechanics Credits: 3
Theoretical soil mechanics as applied to solution of specific engineering problems.
Prerequisites: CIV-ENGR 335.

Cross Listings: CIV-ENGR 436.

CIV-ENGR 5542 Hydraulic Structures Credits: 3
A review of the history and hydraulic design procedures for a variety of hydraulic structures including spillways, water measurement structures, canal structures and energy dissipation structures.
Prerequisites: CIV-ENGR 452 (or CIV-ENGR 5552).

CIV-ENGR 5544 Unit Processes in Environmental Engineering Credits: 3
Typical chemical and physical relationships are applied to unit processes of water and wastewater. Troubleshooting for operation problems is emphasized.
Prerequisites: CIV-ENGR 342.

CIV-ENGR 5545 Environmental Engineering Microbiology Credits: 3
Theory and application of fundamental principles of microbiology, toxicology, ecology, and aquatic biology of the microorganisms of importance to environmental engineers.
Prerequisites: CE342.

CIV-ENGR 5546 Limnology Credits: 3
A survey of the physical, biological, and chemical issues important in surface fresh waters. Includes carbonate chemistry, algal assay and Thermocline analysis.
Prerequisites: CHEM 211, MATH 345.
CIV-ENGR 5547 Contracts and Law for Engineers Credits: 3
This course covers a broad range of substantive legal topics giving the student a grounding in the legal implications of certain situations that they may encounter during their careers. The course includes coverage of basic contract law, environmental regulations and compliance, construction law, antitrust law, intellectual property law, civil procedure, employment law, business entities (corporate law) product liability and criminal law and procedure. The objective of the course is to provide students with a fundamental understanding of the wide range of federal and state laws governing behavior in our complicated and rule of law driven society.

CIV-ENGR 5549 Environmental Compliance, Auditing, & Permitting Credits: 3
This course provides a high level overview of the most important statutes that have been enacted to protect the environment. The course covers regulation of hazardous waste, the Clean Air and Clean Water Acts, the Resource Conservation and Recovery Act, the All Appropriate Inquiry Rule and the law addressing sites contaminated with hazardous substances and the technology options employed to remediate those sites. In addition, the course provides coverage of environmental audits and emergency planning for extremely hazardous substances, the regulation of underground storage tanks, safe drinking water and the National Environmental Policy Act among other statutes. 

**Prerequisites:** ANCHOR 201/CIV-ENGR 211, MEC-ENGR 285.

**Cross Listings:** CIV-ENGR 449.

CIV-ENGR 5552 Hydraulics of Open Channels Credits: 3
This is a first course in the fundamentals of open channel (free surface) water flow. Over ninety-nine percent of all the water that is moved on the planet’s surface is by free surface flow. Study of free surface flow is essential to the study of storm water drainage systems, flood control, water and wastewater treatment and the study of the form and processes of river evolution. This class provides the fundamental physical principles of free surface flow as a prelude to a significant number of other topics that pertain to engineering and geomorphic analysis.

**Prerequisites:** CIV-ENGR 351.

CIV-ENGR 5553 Hydraulics and Variability of Rivers Credits: 3
This course introduced concepts of alluvial channel behavior, evolution and change due to natural and man-induced modifications to streams and watersheds. Numerous case studies of river behavior are studied from the perspective of hydraulics, geomorphology and sediment transport.

**Prerequisites:** CIV-ENGR 357.

CIV-ENGR 5554 River Stability and Scour Credits: 3
Bridge hydraulics, stream stability, scour at bridge piers and abutments, hydraulic modeling of floods, countermeasures for protection of bridge infrastructure.

**Prerequisites:** CIV-ENGR 452 (or CIV-ENGR 5552).

**Cross Listings:** CIV-ENGR 454.

CIV-ENGR 5556 Urban Hydrology Credits: 3
Analysis of urban drainage systems in accordance with published municipal criteria. This course is an in-depth, follow on course for senior undergraduate students interested in the hydrological sciences and for graduate students specializing in water resources. Specifically this course will focus on the engineering procedures and techniques specified by municipalities to design and maintain efficient, safe, storm drainage systems. This course also focuses on the unique issues associated with estimating and designing for rainfall/runoff in urban metropolitan areas, including channel and reservoir routing of floods through stream channels, retention structures, culverts, and storm sewers.

**Prerequisites:** CIV-ENGR 357.

CIV-ENGR 5553 Construction Law Credits: 3
This course introduces professional, ethical, and legal concepts of the professional practice of engineering, and the role of the consulting engineer, specifically in the A/E/C industry during the design, procurement, and construction processes. A conceptual framework is developed for understanding the industry standard agreements (AIA, EJCDC, ConCensus) and the various participants roles and duties in project execution. The engineer’s “professional standard of care” is examined and revisited throughout the semester, specifically what it means to be a “Professional Engineer”. Emphasis is placed on project and contract management and the applicable law. Skills are developed in finding online resources of law, legal, and practice advice relevant to the practice of engineering and the construction industry

CIV-ENGR 5555 Project Finance Credits: 3
This course introduces students to the financial concepts faced by engineers in the businesses in which they work and for the projects to which they are assigned. Throughout the course students are reminded of the impact of two key variables – money and time – on their work. While not attempting to turn good engineers into mediocre accountants, the course includes a strong emphasis on managerial accounting. Students will learn how to read and apply financial statements and how to use these same financial concepts in developing pro formas to evaluate and support major capital investments. The effect of time on the value of money, appropriate discount factors, and the internal rate of return will be explored in the class. Students will learn to combine these financial factors with electronic spreadsheets to evaluate business opportunities and practices. All students will be required to develop a comprehensive financial model to evaluate/justify a real world capital project.
CIV-ENGR 5566 Green Building and Sustainable Infrastructure Credits: 3
This course provides a broad overview of what sustainability means to construction and our built environment. Specific green infrastructure rating systems of LEED and Envision will be discussed in detail to quantify the “greenness” of construction of buildings residential subdivisions, highways, roads, and airports. Upon completion of this course students will have a substantial background and understand the aspects needed for the LEED Green Associates and Envision ISI exams. Two major additional aspects of green building important to sustainable infrastructure include stormwater management using “green” techniques and methods to mitigate the urban heat island. The course will also discuss infrastructure project sustainability from a life cycle cost perspective and determining the life cycle inventory of various materials. Upon completion of the course, students will better understand what sustainability means and how it applies in the context of our built environment and have a good idea of how technology will impact our sustainable future.

Cross Listings: CIV-ENGR 466.

CIV-ENGR 5567 Introduction to Construction Management Credits: 3
This course will introduce the students to basic construction management related topics including structure of the construction industry, construction drawings and specifications, estimating and bidding, construction contracts, bonds and insurance, planning and scheduling of construction operations, project management, computer techniques.

Prerequisites: MEC-ENGR 272 (or MATH 345).

CIV-ENGR 5568 Construction Planning and Scheduling Credits: 3
This course is intended to provide an in-depth examination of the construction planning and scheduling process, as it relates to civil engineering projects. Topics will include planning and scheduling of construction operations by the critical path method, Network diagramming, scheduling computations, and time-cost trade-offs. Manpower and equipment leveling. Computer and noncomputer techniques.

Prerequisites: CIV-ENGR 467.

CIV-ENGR 5569 Construction Methods and Equipment Credits: 3
Introduction to methods used to plan, construct and manage heavy civil projects. Topics will include development, project control, equipment productivity, earthmoving fundamentals, formwork design, and other issues in heavy civil projects.

Prerequisites: CIV-ENGR 467.

CIV-ENGR 5570 Corrosion Engineering Credits: 3
This course will cover the physical interaction of metallic materials with their environments, called corrosion. Corrosion is an electrochemical process and the thermodynamics and kinetics of corrosion processes will be discussed. Students will be expected to identify different forms of corrosion and be able to select appropriate materials for their working environment to prevent corrosion related problems. Second half of the class will concentrate on corrosion of metals in concrete and prevention methods.

Prerequisites: CHEM 211, CHEM 211L, CIV-ENGR 378WI.

CIV-ENGR 5571 Advanced Portland Cement Concrete Credits: 3
This course will cover topics such as cement chemistry, concrete proportioning, aggregates, mineral and chemical admixtures, fresh and hardened properties of concrete, and durability of concrete. Design and proportioning of concrete mixtures for desired fresh and hardened properties will be emphasized. Specialty concrete types such as high strength/high performance concrete, lightweight concrete, pervious concrete, high volume fly ash concrete, and fiber reinforced concrete will also be covered.

Prerequisites: CHEM 211, CHEM 211L, CIV-ENGR 378WI.

CIV-ENGR 5573 Durability of Civil Engineering Materials Credits: 3
This course will explore the identification, causes of, and remediation of material-related durability deterioration in civil engineering projects. The primary focus will be on reinforced concrete, plain concrete, and soil for a variety of applications. Course content will be delivered primarily through laboratory activities and handouts. Lab activities will use advanced analysis techniques and help the students identify and measure deterioration mechanisms. Various non-destructive evaluation techniques will be discussed. Students have hands on experiences with samples production, data collection, and data analysis for all of the lab activities.

Prerequisites: CIV-ENGR 335, CIV-ENGR 378WI.

Cross Listings: CIV-ENGR 473.

CIV-ENGR 5575 Seismic Design of Structures Credits: 3
Introduction to basic analysis and design principles for the seismic design of buildings (concrete, steel, wood). General seismic principles, codes and loads, static lateral force procedure, dynamic lateral force procedure, topics in rigidities of buildings.

Prerequisites: CIV-ENGR 323 (or CIV-ENGR 422WI), MEC-ENGR 285.

CIV-ENGR 5582 Advanced Traffic Engineering Credits: 3
This course covers the review of traffic flow characteristics, the field survey practices and studies, traffic signal designs, freeway operation, and the introduction to Intelligent Traffic Systems (ITS).

Prerequisites: CIV-ENGR 319, CIV-ENGR 481.
CIV-ENGR 5584 Pavement Materials, Design, Maintenance, and Rehabilitation Credits: 3
This course will explore the identification, causes of, and remediation of material-related durability deterioration in civil engineering projects. The primary focus will be on reinforced concrete, plain concrete, and soil for a variety of applications. Course content will be delivered primarily through laboratory activities and handouts. Lab activities will use advanced analysis techniques and help the students identify and measure deterioration mechanisms. Various non-destructive evaluation techniques will be discussed. Students have hands on experiences with samples production, data collection, and data analysis for all of the lab activities.
Prerequisites: CIV-ENGR 378WI.

CIV-ENGR 5585 Principles of Railroad Engineering Credits: 3
The engineering analysis and design of railroad systems including the study of the dynamics of track/trains; wheel/rail interaction related to acceleration and braking; horizontal and vertical geometric design of railroads and rail-bed design, rail structures; freight and passenger operations; and, rail-highway interaction and safety.
Prerequisites: CIV-ENGR 481.

CIV-ENGR 5599 Thesis Research Credits: 1-6
Independent investigation in the field of civil engineering to be presented in the form of a thesis.

CIV-ENGR 5601AE Advanced Topics In Civil Engineering Credits: 1-3
CIV-ENGR 5601AS Doctoral Topics Civil Engineering Credits: 1-3
CIV-ENGR 5601B Advanced Topics In Civil Engineering Credits: 1-3
CIV-ENGR 5601CH Advanced Topics In Civil Engineering Credits: 1-3
CIV-ENGR 5601FM Doctoral Topics in Civil Engineering Credits: 1-3
Current technical developments in civil engineering.
CIV-ENGR 5601G Advanced Topics In Civil Engineering Credits: 1-3
CIV-ENGR 5601RE Advanced Topics In Civil Engineering Credits: 1-3
Advanced Topics In Civil Engineering
CIV-ENGR 5601SD Advanced Topics In Civil Engineering Credits: 1-3
CIV-ENGR 5601X Advanced Topics In Civil Engineering Credits: 1-3
CIV-ENGR 5602 Directed Reading in Civil Engineering Credits: 1-3
Faculty supervised readings course.
Prerequisites: Graduate standing.

CIV-ENGR 5607 Numerical Methods in Engineering Credits: 3
Classification and numerical solution of engineering problems—ordinary and partial differential equations, algebraic equations. Includes initial, boundary, eigen-# and characteristic-value problems.
Prerequisites: MATH 345.

CIV-ENGR 5622 Theory of Elasticity Credits: 3
Cross Listings: MEC-ENGR 5622.

CIV-ENGR 5623 Theory of Plates and Shells Credits: 3
Bending of plates with various loading and boundary conditions. Deformations, stresses in thin shells.
Prerequisites: CIV-ENGR 5622.
Cross Listings: MEC-ENGR 5623.

CIV-ENGR 5624 Theory of Elastic Stability Credits: 3
Buckling of columns, beams, rings, curved bars, thin plates, shells.
Prerequisites: CIV-ENGR 5622.
Cross Listings: MEC-ENGR 5624.

CIV-ENGR 5625 Advanced Prestressed Concrete Credits: 3
Design and behavior of prestressed concrete structures; material and system of pretensioned and post tensioned systems; prestress losses; flexure, shear, bond, deflections and partial prestress in determinate structures; indeterminate beams-introduction.
Prerequisites: CIV-ENGR 422WI.
CIV-ENGR 5629 Adv. Design of Structures for Blast and Fire Credits: 3
General overview of Blast Design; risk assessment and design criteria; simplified Blast Effects Analysis; ground shock, material response; antiterrorism design considerations; weapons effects and mitigation; internal explosions; progressive collapse analysis; and introduction to Fire Design.

CIV-ENGR 5645 Water Quality Modeling Credits: 3
Derivation and application of models for describing oxygen budget, nutrient exchange, and biological productivity in streams, lakes and estuaries. **Prerequisites:** CIV-ENGR 342.

CIV-ENGR 5646 Physiochemical Treatment Processes Credits: 3
Fundamental principles, analysis and modeling of physical and chemical processes for water and wastewater treatment. **Prerequisites:** CIV-ENGR 342.

CIV-ENGR 5647 Biochemical Treatment Processes Credits: 3
Biochemical principles, kinetic models and energy considerations in the design of biological wastewater treatment processes. **Prerequisites:** CIV-ENGR 342.

CIV-ENGR 5648 Environmental Engineering Practicum Credits: 3
Numerical water quality modeling of actual site data for wasteload allocation. **Prerequisites:** CIV-ENGR 5645.

CIV-ENGR 5649 Design of Water and Wastewater Treatment Facilities Credits: 3
Development of design criteria and their application to the design of water and wastewater treatment facilities. **Prerequisites:** CIV-ENGR 5646 or CIV-ENGR 5647.

CIV-ENGR 5651 Fundamentals of Fluid Mechanics Credits: 3
Fundamentals of fluid motion, lecture and laboratory. Instrumentation, technique and analysis for experimental studies in fluid mechanics.

CIV-ENGR 5655 Sediment Transport Credits: 3
The study of sediment transport in rivers: the relationship between sediment transport and the fundamentals of fluvial geomorphology. Computation of sediment transport and sediment transport modeling. **Prerequisites:** CIV-ENGR 452 (or CIV-ENGR 5552).

CIV-ENGR 5656 Advanced Hydraulic Engineering Credits: 3
Rapidly varied flow and design of transition structures. Hydraulic design of spillways, reservoirs and related structures.

CIV-ENGR 5675 Advanced Seismic Design of Structures Credits: 3
Introduction to basic analysis and design principles for the seismic design of buildings (concrete, steel, wood). General seismic principles, codes and loads, static lateral force procedure, dynamic lateral force procedure, topics in rigidities of buildings. **Prerequisites:** CIV-ENGR 323 (or CIV-ENGR 422WI), MEC-ENGR 285.

CIV-ENGR 5679 Dynamics of Structures Credits: 3
Study of the dynamic behavior of structures. Analysis of equivalent lumped parameter systems for the design of structures in a dynamic environment. **Prerequisites:** CIV-ENGR 276 (or CIV-ENGR 421), MEC-ENGR 484 (or MATH 345, MEC-ENGR 285).

**Cross Listings:** MEC-ENGR 5679.

CIV-ENGR 5681 Traffic Flow Theory Credits: 3
This course covers the review of macroscopic and microscopic traffic flow characteristics, the traffic flow models, and the traffic simulation applications. **Prerequisites:** CIV-ENGR 319, CIV-ENGR 481.

CIV-ENGR 5682 Transportation Network Modeling Credits: 3
This course is about modeling, solving, and understanding network flow problems, especially in the transportation discipline. This course covers equilibrium traffic assignment, network design, fleet assignment, fleet routing, and crew scheduling. **Prerequisites:** CIV-ENGR 319, CIV-ENGR 481.

CIV-ENGR 5699 Research and Dissertation Credits: 1-9
Doctoral dissertation research.
Computer Science Courses

COMP-SCI 100 Computer Fundamentals and Applications Credits: 3
The course covers essential computer concepts and skills. The emphasis is on using the computer as a tool to enhance productivity. Topics include basic computer concepts such as what to look for when buying a computer and how to avoid hackers and viruses when operating one. Students will also learn how to create word processing, spreadsheet, database, and presentation documents using the Microsoft Office suite of applications. The course prepares students to succeed in both college and business by enabling them to write reports, analyze and chart data, prepare presentations and organize large data sets.

**Prerequisites:** MATH 110 (or equivalent).

COMP-SCI 101 Problem Solving and Programming I Credits: 3
Problem solving, algorithms, and program design. Use of structured programming, lists, control structures, recursion, objects and files in Python. Introduction to graphical interface programming. Coding, testing and debugging using a modern development environment.

**Prerequisites:** MATH 110 or higher, ALEKS score of 51 or higher.

**Co-requisites:** COMP-SCI 101L.

COMP-SCI 111 Introduction to Computing Credits: 3
This course provides a broad and general introduction to the computing fields underlying computer science, information technology and computer engineering and its impact on humanity and society. It introduces important concepts of the field, including hardware, software, communications networks, algorithmic processes, information representation, and programming. The course is not programming oriented, but some light programming might be required. The course also introduces academic skills and strategies for success as a student and in a professional career.

COMP-SCI 190 Special Topics Credits: 1-3
Selected introductory topics in the area of computing. May be repeated for credit when topic varies.

COMP-SCI 190A Special Topics Credits: 1-3
Selected introductory topics in the area of computing. May be repeated for credit when topic varies.

COMP-SCI 191 Discrete Structures I Credits: 3
Mathematical logic, sets, relations, functions, mathematical induction, algebraic structures with emphasis on computing applications.

**Prerequisites:** MATH 110 or higher, ALEKS score of 51 or higher.

COMP-SCI 201R Problem Solving and Programming II Credits: 3
Problem solving and programming using classes and objects. Algorithm efficiency, abstract data types, searching and sorting, templates, pointers, linked lists, stacks and queues implemented in C++.

**Prerequisites:** COMP-SCI 101, COMP-SCI 191.

**Co-requisites:** COMP-SCI 201L.

COMP-SCI 281R Introduction to Computer Architecture and Organization Credits: 3
Digital Logic and Data Representation, process architecture and instruction sequencing, memory hierarchy and bus-interfaces and functional organization.

**Prerequisites:** COMP-SCI 101, COMP-SCI 191.

COMP-SCI 282 Assembly Language Programming Credits: 3
Use of an assembly language for a virtual machine, internal representation of data and instructions, the assembly process, linking, loading and program relocation and execution. I/O, exception handling, alternative architectures.

**Prerequisites:** COMP-SCI 201R, COMP-SCI 281R.

COMP-SCI 290 Special Topics Credits: 1-3
Selected intermediate topics in the area of computing. May be repeated for credit when topic varies.

COMP-SCI 291 Discrete Structures II Credits: 3

**Prerequisites:** COMP-SCI 191.
COMP-SCI 303 Data Structures Credits: 3
Linear and hierarchical data structures, including stacks, queues, lists, trees, priority queues, advanced tree structures, hashing tables, dictionaries and disjoint-set. Abstractions and strategies for efficient implementations will be discussed. Linear and hierarchical algorithms will be studied as well as recursion and various searching and sorting algorithms. Programming concepts include Object Orientation, concurrency and parallel programming. Several in-depth projects in C++ will be required.

Prerequisites: COMP-SCI 191, COMP-SCI 201R, and COMP-SCI 201L.

COMP-SCI 304WI Ethics and Professionalism Credits: 3
Societal and ethical obligations of computer science, information technology, and electrical/computer engineering practice. Topics include obligations of professional practice, electronic privacy, intellectual property, ethical issues in networking, computer security, computer reliability, and whistleblowing.

Prerequisites: ENGLISH 225 (or equivalent), RooWriter.

COMP-SCI 349 Java Programming with Applications Credits: 3
The course covers the syntax and semantics of the Java programming language along with the use of essential class libraries. These topics will be taught in the context of application development. Students will learn how to write small to medium sized Java applications and applets. Specific topics covered include: essential classes in the Java API, interfaces, inheritance, exceptions, graphical user interface components, layout managers, events, I/O classes, Applets, data base access, and multithreading. Other topics will be covered as time permits.

Prerequisites: COMP-SCI 303.

COMP-SCI 352 Data Structures and Algorithms Credits: 3
Abstract data structures and analysis of associated algorithms, abstractions as separate from implementation. Structures include lists, trees, priority queues, advanced tree structures, hashing tables, and graphs. Comparison of efficiency of algorithms as implemented with various data structures. Advanced searching and sorting algorithms, shortest paths, spanning tree and flow algorithms. Introduction to the basic concepts of NP-complete problems.

Prerequisites: COMP-SCI 201R (or E&C-ENGR 216 for EC-ENGR students), COMP-SCI 291, MATH 210.

COMP-SCI 371 Database Design, Implementation and Validation Credits: 3
This course discusses in detail all aspects of ORACLE database management systems. It covers in detail database design, implementation, and validation using ORACLE. In addition to these, it briefly covers ORACLE implementation, tuning, and implementation. The course is suitable for undergraduates and professionals alike.

Prerequisites: COMP-SCI 303 (or COMP-SCI 352).

COMP-SCI 390 Special Topics Credits: 1-3
Selected topics in the area of computing at the junior level. May be repeated for credit when the topic varies.

COMP-SCI 393 Numerical Analysis and Symbolic Computation Credits: 3
Basic elements of numerical analysis: numerical solution of algebraic equations, solution of linear simultaneous algebraic equations, matrices, eigenvalues and eigenvectors, numerical integration and numerical solution of linear differential equations. Use of a symbolic manipulator on both symbolic and numerical computation, applied to the above listed basic elements of numerical analysis.

Prerequisites: COMP-SCI 201R, COMP-SCI 281R, MATH 250.

COMP-SCI 394R Applied Probability Credits: 3
Basic concepts of probability theory. Counting and measuring. Probability, conditional probability and independence. Discrete, continuous, joint random variables. Functions of random variables. Sums of independent random variables and transform methods. Random number generation and random event generation. Law of large numbers, central limit theorem, inequalities. Their applications to computer science and electrical and computer engineering areas are stressed.

Prerequisites: COMP-SCI 201R and COMP-SCI 201L (or E&C-ENGR 216), MATH 220, and STAT 235 (or E&C-ENGR 241).

COMP-SCI 396 Fundamentals of Communication and Network Security Credits: 3
Techniques learned in this course provide security solutions for a variety of security threats across the spectrum of communications and network applications. This course covers both fundamental cryptology and applications, including conventional encryption, modular arithmetic, data encryption standard, public-key cryptography, RSA, wireless communication security, secure email, Internet payment and secure web applications.

Prerequisites: MATH 300.

COMP-SCI 404 Introduction to Algorithms and Complexity Credits: 3
A rigorous review of asymptotic analysis techniques and algorithms: from design strategy (such as greedy, divide-and-conquer, and dynamic programming) to problem areas (such as searching, sorting, shortest path, spanning trees, transitive closures, and other graph algorithms, string algorithms) arriving at classical algorithms with supporting data structures for efficient implementation. Throughout, the asymptotic complexity is studied in worst case, best case, and average case for time and/or space, using appropriate analysis techniques (recurrence relations, amortization). Introduction to the basic concepts of computability and NP-complete theory.

Prerequisites: COMP-SCI 291, COMP-SCI 303 (or COMP-SCI 352).

COMP-SCI 411 Introduction to Telecommunications Systems Credits: 3
Representation of signals and systems, Fourier Series, Fourier Transform, transmission of signal through linear system, amplitude modulation systems, frequency and pulse modulation systems, sampling, time division multiplexing, digital modulation and noise in modulation systems.
Prerequisites: COMP-SCI 394R, MATH 250.

COMP-SCI 420 Introductory Networking and Applications Credits: 3
This introductory course examines the systems aspects of the different LAN/MAN/WAN models, including topics such as protocols, network operating systems, applications, management and wireless communication systems. It also examines how the different models are interconnected using bridges and routers.
Prerequisites: Senior standing.

COMP-SCI 421A Foundations of Data Networks Credits: 3
This introductory course examines the analytical aspects of data communications and computer networking. Topics cover protocol concepts and performance analysis that arise in physical, data link layer, MAC sub layer, and network layer.
Prerequisites: COMP-SCI 291, COMP-SCI 303, COMP-SCI 394R.

COMP-SCI 423 Client/Server Programming and Applications Credits: 3
Fundamentals of Client/Server programming using socket interface; features of network programming including connection oriented and connectionless communication in multiple environments (Windows, UNIX, and Java); other client/server mechanisms, such as RPC and RMI; and formal object environments designed to facilitate network programming (CORBA, COM and Beans).
Prerequisites: COMP-SCI 352 (or COMP-SCI 303, COMP-SCI 431).

COMP-SCI 424 Software Methods and Tools Credits: 3
This course covers a number of software methods and tools that are widely used in industry. These methods include architecture patterns and styles, software frameworks, unit testing, and version control. The covered software tools include Microsoft Project, IBM Rational Systems Modeler, Eclipse Plug-ins, JUnit, Subversion, and GIT. The course emphasizes practice. Students will use these methods and tools to develop a software system from the initial planning to final deployment.
Prerequisites: COMP-SCI 349.

COMP-SCI 431 Introduction to Operating Systems Credits: 3
This course covers concurrency and control of asynchronous processes, deadlocks, memory management, processor and disk scheduling, x86 assembly language, parallel processing, and file system organization in operating systems.
Prerequisites: COMP-SCI 303, COMP-SCI 281R.

COMP-SCI 441 Programming Languages: Design and Implementation Credits: 3
This course covers programming language paradigms (object-oriented programming, functional programming, declarative programming, and scripting) and design tradeoffs in terms of binding, visibility, scope, lifetime, type-checking and abstraction. It also covers programming language specification, grammar, lexical analysis, exception handling, and runtime considerations.
Prerequisites: COMP-SCI 303.

COMP-SCI 444 Compiler/Translator Design Credits: 3
This course will teach modern compiler techniques applied to both general-purpose and domain-specific languages. The examples chosen will also convey a detailed knowledge of state-of-the art based WWW technology. The fundamental goal of programming is to provide instructions to the computer hardware. The primary purpose of the compiler/translator is to facilitate communication from the programmer via some high level language to ultimately the computer hardware. Understanding how compiler/translations are built and operate is important to understanding efficiency of operation and storage.
Prerequisites: COMP-SCI 303 (or COMP-SCI 352).

COMP-SCI 449 Foundations of Software Engineering Credits: 3
The course introduces concepts of Software Engineering (definitions, context) and the Software Development Process (life cycle). Students will get a solid foundation in Agile methodology, SW requirements, Exceptions and Assertions, Verification and Validation, SW Models and modeling, and User Interface Design. Various SW Architectures will be discussed.
Prerequisites: COMP-SCI 303 (or COMP-SCI 352).

COMP-SCI 451R Software Engineering Capstone Credits: 3
The course will focus on the requirements and project planning and managing of medium sized projects with deliverables of each phase of the software life cycle. Additional studies of software modeling, requirements specifications, configuration management, verification, validation, software evolution and quality and finally measurement, estimation and economics of the software process.
Prerequisites: COMP-SCI 303 (or COMP-SCI 352), COMP-SCI 449.
COMP-SCI 456 Human Computer Interface Credits: 3
Design of human-computer interfaces considering the psychological and physical abilities of the user. User interface design from a functional and ergonomic perspective. Contents organization, visual organization, navigation. Use of graphical interface (GUI) and the development of high quality user interfaces.
**Prerequisites:** COMP-SCI 449.

COMP-SCI 457 Software Architecture: Requirements & Design Credits: 3
Introduction to requirements and design engineering with emphasis on organization and presentation of system requirements and designs for customers, users and engineers; validation of requirements and design with needs of system customer; examination of requirement and design changes during the lifetime of a system; transformation of informal ideas into formal detailed descriptions; examination of the different stages in the design process including architectural design, interface design and data structure design, database design, program and transaction design; examination of domain modeling criteria and examination of design quality attributes. Also discusses non-functional attributes and project resource allocation.
**Prerequisites:** COMP-SCI 303 (or COMP-SCI 352).

COMP-SCI 458 Software Architecture: Testing & Maintenance Credits: 3
Introduction of software system testing (including verification), software process, software reuse, software maintenance, and software re-engineering.
**Prerequisites:** COMP-SCI 303 (or COMP-SCI 352).

COMP-SCI 461 Introduction to Artificial Intelligence Credits: 3
This course provides an overview of the field of artificial intelligence. Topics include guided and unguided search, adversarial search, generation and use of heuristics, logic programming, probabilistic reasoning, and neural networks. Application areas studied include game playing, automated proofs, expert systems, and data mining. Recommended preparation: One or more of COMP-SCI 394R, COMP-SCI 404, or an advanced programming elective.
**Prerequisites:** COMP-SCI 303 or equivalent.

COMP-SCI 464 Applied Artificial Intelligence Credits: 3
**Prerequisites:** COMP-SCI 461.

COMP-SCI 465R Introduction to Statistical Learning Credits: 3
This course provides a practical introduction to analytical techniques used in data science and prepares students for advanced courses in machine learning. Topics covered include multivariate distributions, information theory, linear algebra (eigenanalysis), supervised/unsupervised learning, classification/regression, linear/non-linear learning, introduction to Bayesian learning (Bayes rule, prior, posterior, likelihood), parametric/non-parametric estimation.
**Prerequisites:** COMP-SCI 394R.

COMP-SCI 466R Introduction to Bioinformatics Credits: 3
This course introduces students to the field of Bioinformatics with a focus on understanding the motivation and computer science behind existing Bioinformatic resources, as well as learning the skills to design and implement new ideas.
**Prerequisites:** COMP-SCI 303.

COMP-SCI 470 Introduction to Database Management Systems Credits: 3
This course covers database architecture, data independence, schema, Entity-Relationship (ER) and relational database modeling, relational algebra and calculus, SQL, file organization, relational database design, physical database organization, query processing and optimization, transaction structure and execution, concurrency control mechanisms, database recovery, and database security.
**Prerequisites:** COMP-SCI 303.
**Co-requisites:** COMP-SCI 431.

COMP-SCI 475 Introduction to Computer Graphics Credits: 3
Interactive Computer Graphics, Hardware Interaction, 3D transformations, Shading, Lighting and Texturing.
**Prerequisites:** COMP-SCI 303.

COMP-SCI 490 Special Topics Credits: 1-3
Selected topics in specific areas of computer science. May be repeated for credit when the topic varies.
COMP-SCI 490CI Special Topics Credits: 1-3
COMP-SCI 490CR Special Topics Credits: 1-3
COMP-SCI 490IS Special Topics Credits: 1-3
COMP-SCI 490JU Special Topics Credits: 1-3
COMP-SCI 490MT Special Topics Credits: 1-3
COMP-SCI 490NN Special Topics Credits: 1-3
COMP-SCI 490SA Special Topics Credits: 1-3
Special Topics
COMP-SCI 490SI Special Topics Credits: 1-3
COMP-SCI 490SM Special Topics Credits: 1-3
COMP-SCI 491 Internship Credits: 6
Students may participate in structured internships under the joint supervision of an employer and a faculty member. The student must carry out significant professional responsibilities that also have academic merit. The number of credit hours is based on the quality of the academic experience. Available for credit/no credit only and students must be in good standing with at least 18 credit hours of CS/IT counting towards the degree. Registration by consent number only; petition forms for CS/IT491 Internships are available in the office of CSEE Division and on the web.
Prerequisites: Junior standing.

COMP-SCI 494R Applied Stochastic Models Credits: 3
Review of basic probability including properties of joint random variables and functions of random variables. Discrete and continuous random processes, such as the Poisson process, Brownian motion, and white Gaussian noise. Linear filtering of random processes. Markovian birth and death processes and elementary queuing theory.
Prerequisites: COMP-SCI 394R.

COMP-SCI 497 Directed Readings Credits: 1-3
Readings in an area selected by an undergraduate student in consultation with a faculty member. Arrangements must be made prior to registration.

COMP-SCI 498 Research Seminar Credits: 1-3
Undergraduate research based on intensive readings from the current research literature under the direction of a faculty member. Arrangements must be made prior to registration.

COMP-SCI 499 Undergraduate Research Credits: 1-3
Completion of project, including a final written report, under the direction of a faculty member. A prospectus must be accepted prior to registration.

COMP-SCI 5101 Discrete Structures Review for Graduate Students Credits: 1-3
A review of mathematical logic, sets, relations, functions, mathematical induction, and algebraic structures with emphasis on computing applications. Recurrence relations and their use in the analysis of algorithms. Graphs, trees, and network flow models. Introduction to Finite state machines, grammars, and automata. Students must have completed College Algebra before taking this course.

COMP-SCI 5102 Operating Systems Review for Graduate Students Credits: 1-3
This course covers concurrency and control of asynchronous processes, deadlocks, memory management, processor and disk scheduling, parallel processing, and file system organization in operating systems.
Prerequisites: Data Structures, Computer Architecture.

COMP-SCI 5103 Advanced Data Structures and Analysis of Algorithms Review for Graduate Students Credits: 1-3
A review of linear and hierarchical data structures, including stacks, queues, lists, trees, priority queues, advanced tree structures, hashing tables, dictionaries and disjoint-sets. Asymptotic analysis techniques and algorithms: from design strategy (such as greedy, divide-and-conquer, and dynamic programming) to problem areas (such as searching, sorting, shortest path, spanning trees, transitive closures, graph algorithms, and string algorithms) arriving at classical algorithms with efficient implementation. Introduction to the basic concepts of complexity theory and NP-complete theory. Students must have taken courses in Linear Algebra, Discrete Structures, Data Structures, and Applied Probability before taking this course.

COMP-SCI 5510 Information Theory Credits: 3
Representation, transmission and transformation of information, information compression and protection, generation, storage, processing and transmission of information.
Prerequisites: BS in Computer Science, Engineering, or Mathematics.

COMP-SCI 5511 Advanced Telecommunications Networks Credits: 3
Efficient source coding and channel coding techniques, principles of switching, digital transmission over microwave, copper and optical media, T-carrier and SONET systems, traffic consideration in telecommunications networks, network synchronization, control and management, ATM concepts.
Prerequisites: COMP-SCI 394R, COMP-SCI 411.
COMP-SCI 5513 Digital Cellular Communications Credits: 3
Principles of microwave communications, performance metrics, mobile communications and cellular topology, co-channel and adjacent channel interference, fading and shadowing, various types of diversity, TDMA, FDMA and CDMA and other techniques for channel assignment, cellular network architectures, design considerations, PCN concepts.
Prerequisites: COMP-SCI 411.

COMP-SCI 5514 Optical Fiber Communications Credits: 3
Fiber optic cable and its characteristics, optical sources and transmitters, optical detectors and receivers, optical components such as couplers and connectors, WDM and OFDM techniques, modulation and transmission of information over optical fibers, design of optical networks, single and multihop fiber LANs, optical carrier systems.
Prerequisites: COMP-SCI 411.

COMP-SCI 5514A Optical Networking Credits: 3
Components of optical networks such as OADM, OXC, optical switches, DWDM, and their functions and interactions. Design, analysis and routing over all-optical networks to include waveband, wavelength and lightpath routing.
Prerequisites: COMP-SCI 411.

COMP-SCI 5517 Digital Switching: Techniques and Architectures Credits: 3
Integration of transmission and switching, single and multistage switching principles, space and time division switching, conventional switch architectures such as 4ESS, integration of circuit and packet switching, ATM switching and design considerations, ATM switch architectures, evaluation and comparison, future trends.
Prerequisites: COMP-SCI 394R, COMP-SCI 411.

COMP-SCI 5520 Network Architecture I Credits: 3
Principles, protocols, and architectures of data networks, internetworking, routing, layering, and addressing, with specific investigation of the Internet Protocol (IP), Mobile IP, Multiprotocol Label Switching (MPLS), IP over Asynchronous Transfer Mode (ATM) networks, and virtual private networks.
Prerequisites: COMP-SCI 420 (or COMP-SCI 421A), COMP-SCI 431.

COMP-SCI 5521 Network Architecture II Credits: 3
Principles, protocols and architectural issues of computer networks for transport layer and above, with specific emphasis on TCP/IP for best-effort services as well as for emerging multi-media services.
Prerequisites: COMP-SCI 5520.

COMP-SCI 5522 Computer Network Design and Analysis Credits: 3
Topological design, capacity and flow assignment problem-modeling and algorithms, and their analysis, issues in network control.
Prerequisites: COMP-SCI 303, COMP-SCI 394R, COMP-SCI 421A.

COMP-SCI 5523 Capacity Planning for Service-Oriented Architectures Credits: 3
Web site, cloud service, and data center administrators are faced with the task of adequately sizing their Information Technology (IT) infrastructure so that they can provide quality of service required by users at an affordable cost. In this class we will explore the Internet’s complex relationships and how these relationships impact performance and availability of Web and cloud services. The fundamentals of service oriented architectures will be presented and we will develop performance models based on probability fundamentals and the theory of queuing networks and apply these models toward the design and analysis of large scale information systems.
Prerequisites: COMP-SCI 394R, COMP-SCI 421A.

COMP-SCI 5524 Protocol Design Credits: 3
Protocols as formal algorithms, architectural definition, protocol specification languages and models and their translation to implementation languages, overview of verification methods, symbolic execution.
Prerequisites: COMP-SCI 421A.

COMP-SCI 5525 Cloud Computing Credits: 3
Cloud computing systems operate in a very large scale, and are impacting the economics and the assumptions behind computing significantly. This special topics course provides a comprehensive overview of the key technical concepts and issues behind cloud computing systems such as compute, storage and network resource virtualization and management. We will cover a range of topics of cloud computing including: Cloud system architectures and taxonomy, Computing virtualization techniques, Virtual machine resource management, Data center networking issues, Big data transfer protocols and management, Large scale distributed file system examples (Google File System), Cloud programming.
Prerequisites: CSEE 5110, COMP-SCI 431.

COMP-SCI 5526 Network Routing Credits: 3
Algorithms, protocols and analysis for network routing. Routing in different networks such as circuit-switched networks, Internet, broadband networks, and transmission networks are covered.
Prerequisites: COMP-SCI 5520, COMP-SCI 5522.
COMP-SCI 5528 Local Area Networks: Analysis and Design Credits: 3
Definition of local area networks (LAN), LAN architecture and protocols, topology, transmission media, channel access protocols, modeling, simulation and performance evaluation of LANs, considerations in design and implementation, examples.
Prerequisites: COMP-SCI 421A, COMP-SCI 494R.

COMP-SCI 5531 Advanced Operating Systems Credits: 3
Components of an operating system, scheduling/routing mechanisms, process control blocks, design and test various operating system components.
Prerequisites: COMP-SCI 431.

COMP-SCI 5532 Discrete Event Simulation Credits: 3
Review of statistical distributions, generation of pseudorandom variates and stochastic processes, basic queueing systems such as M/M/m and Jackson Networks, simulation project.
Prerequisites: COMP-SCI 5594.

COMP-SCI 5540 Principles of Big Data Management Credits: 3
This course will introduce the essential characteristics of Big Data and why it demands rethinking how we store, process, and manage massive amounts of structured and unstructured data. It will cover the core technical challenges in Big Data management i.e., the storage, retrieval, and analysis of Big Data. It will emphasize on fundamental concepts, analytical skills, critical thinking, and software skills necessary for solving real-world Big Data problems. Tools such as Apache Hadoop, Pig, Hive, HBase, and Apache Spark will be covered. Extensive reading of research papers and in-class presentations will be heavily emphasized in this class.
Prerequisites: COMP-SCI 431 (or equivalent) and COMP-SCI 470 (or equivalent).

COMP-SCI 5542 Big Data Analytics and Applications Credits: 3
Big Data analytics focus on analyzing large amounts of data to find useful information and to make use of the information for better business decisions. This course introduces students to the practice and potential of big data analytics and applications. In this course, students will have hands-on experience with Big Data technologies (Hadoop and its ecosystems) and tools (Cloudera, RMahout, HBase) for the analysis of large data sets across clustered systems. Students will learn how to develop highly interactive applications for business intelligence.
Prerequisites: Software Engineering (COMP-SCI 451).

COMP-SCI 5543 Real-time Big Data Analytics Credits: 3
This course teaches students fundamental theory and practice in the field of big data analytics and real time distributed systems for real time big data applications. In this course, students will have hands-on experience for the development of real-time applications with various tools such as Twitter's Storm, Apache Flume, Apache Kafka for real time analysis of stream data such as twitter messages and Instagram images.
Prerequisites: Software Engineering (COMP-SCI 451).

COMP-SCI 5551 Advanced Software Engineering Credits: 3
Current concepts in software architecture and design, comparative analysis for design, object-oriented software design, software quality criteria for evaluation of software design. Introduction to metrics, project management and managerial ethics.
Prerequisites: COMP-SCI 451R.

COMP-SCI 5552 Advanced Data Structures Credits: 3
Formal modeling including specification and deviation of abstract data types, completeness issues in the design of data types and data structures, implementation of data structures from a formal data type specification, verification of abstract to concrete data mapping.
Prerequisites: COMP-SCI 291, COMP-SCI 303.

COMP-SCI 5552A Formal Software Specification Credits: 3
Formal modeling including specification and deviation of abstract data types, completeness issues in the design of data types and data structures, implementation of data structures from a formal data type specification, verification of abstract to concrete data mapping.
Prerequisites: COMP-SCI 291, COMP-SCI 303.

COMP-SCI 5553 Software Architecture and Design Credits: 3
The course introduces a number of basic concepts and enabling technologies of software architecture, including architecture styles, architecture description languages, architecture-implementation mapping, and product line architectures. It also covers some advanced topics, such as the REST architecture style and Web Services. Students will read research papers, analyze the existing results, write critiques, give presentations, and exercise the research results with real examples. In addition, students will have an opportunity to work in groups and study the architecture of some real software systems.
Prerequisites: COMP-SCI 451R or equivalent.

COMP-SCI 5554 Software Tools and Programming Environments Credits: 3
Taxonomy of software tools and environments, generic software tool architecture, interface techniques for users, intra-system and stand-alone systems, integration of heterogeneous systems components.
Prerequisites: COMP-SCI 451R.
COMP-SCI 5555 Software Methods and Tools Credits: 3
Software methods and tools are extensively used in current software production to improve software productivity and quality. In this course, we are going to learn a number of popular software methods and tools being used in industry. These methods include object-oriented design and analysis (e.g., UML, design patterns), architecture styles, code generation, and unit testing. The covered software tools include Microsoft Project, IBM Rational Systems Developer, Eclipse Plug-ins, Emacs, JUnit, Subversion, and GIT. The course emphasizes practice, and students will be using these methods and tools to develop a software system, from the initial planning to the final deployment.
Prerequisites: COMP-SCI 349.

COMP-SCI 5556 Human Factors in Computer Systems Credits: 3
Design of "user friendly" man-machine interface, survey of recent psychological studies in man-machine interaction, user interface design, instrumentation and testing, analytic models of man-machine interaction.
Prerequisites: COMP-SCI 451R.

COMP-SCI 5557 Knowledge Discovery and Management Credits: 3
This course teaches students fundamental theory and practice in the field of knowledge discovery and management and also provides them with hands-on experience through application development.
Prerequisites: COMP-SCI 5551, COMP-SCI 461 (or COMP-SCI 464).

COMP-SCI 5558 Advanced Artificial Intelligence Credits: 3
AI systems and their languages, implementations and applications, case studies of various expert systems, current research topics in AI, logic programming using PROLOG.
Prerequisites: COMP-SCI 461.

COMP-SCI 5564 Inference Techniques and Knowledge Representation Credits: 3
Inference Techniques is an in-depth course of logic and automatic theorem proving, intended for Computer Science graduate students, with particular importance to those students interested in Artificial Intelligence. The main areas of study will be concerned with the principals and techniques used for automatic theorem proving. An overview of the representation of knowledge and logic, a detailed appreciation of theorem proving methods, and implementation techniques will be provided in the course. The course will provide background for further study in varying fields of AI.
Prerequisites: COMP-SCI 461.

COMP-SCI 5565 Introduction to Statistical Learning Credits: 3
Introduction to Machine Learning; Multivariate Distributions; Information Theory; Linear Algebra (Eigenanalysis); Supervised/Unsupervised Learning, Classification/Regression; Linear/Non-linear Learning; Introduction to Bayesian Learning (Bayes rule, Prior, Posterior, Maximum Likelihood); Parametric/Non-parametric Estimation.
Prerequisites: Required - Applied Probability (COMP-SCI 394R). Recommended - Linear Algebra (MATH 300); Familiarity with MATLAB or R. OR Consent of instructor.

Cross Listings: COMP-SCI 465R.

COMP-SCI 5566 Introduction to Bioinformatics Credits: 3
This course introduces students to the field of Bioinformatics with a focus on understanding the motivation and computer science behind existing Bioinformatic resources, as well as learning the skills to design and implement new ideas.
Prerequisites: COMP-SCI 303, a course or background in Biology (Genomics or Meta Models preferred).

COMP-SCI 5567 Machine Learning for Data Scientists Credits: 3
This course teaches the theoretical basis of methods for learning from data, illustrated by examples of applications to several domains. Recommended preparation: COMP-SCI 5565.
Prerequisites: COMP-SCI 303, COMP-SCI 394R, COMP-SCI 330.

COMP-SCI 5568 Fundamentals of Probabilistic Graphical Models Credits: 3
Many real world systems are probabilistic in nature. Probability theory gives us the basic tools for modeling many real world systems, allowing us to understand complex behavior. Probabilistic graphical models allow us to model complex probabilistic relationships using graphs. This framework, which spans methods such as Bayesian networks and Markov networks, allows us to manipulate complex probability distributions that often involve hundreds or even many thousands of variables. These methods have been used for an enormous range of applications, which include: web search, turbo coding, robot navigation, image identification, epidemic identification in complex networks, medical diagnosis and speech recognition.
Prerequisites: COMP-SCI 303, COMP-SCI 394R, COMP-SCI 330, Recommended COMP-SCI 5565.

COMP-SCI 5570 Architecture of Database Management Systems Credits: 3
Covers in detail, architecture of centralized database systems, database processing, management of concurrent transactions, query processing, query optimization, data models, database recovery, datawarehousing, workflow, World Wide Web and Database performance, and reviews the architecture of some commercial centralized database systems.
Prerequisites: COMP-SCI 431, COMP-SCI 470.
COMP-SCI 5571 Distributed Database Management Systems Credits: 3
Detailed study of distributed database systems architecture, in-depth study of distributed transaction management, distributed concurrency control and recovery algorithms, database distribution, distributed query optimization and analysis of database system design, and intelligent network databases.
Prerequisites: COMP-SCI 5570.

COMP-SCI 5572 Mobile Computing Credits: 3
This course covers in detail the architecture of mobile and wireless network. It discusses and develops reveland concepts and algorithms for building mobile database systems (MDS), which is necessary for managing information on the air and E-commerce.
Prerequisites: COMP-SCI 5570.

COMP-SCI 5573 Information Security and Assurance Credits: 3
This course deals with information security and assurance and covers the concepts necessary to secure the cyberspace. It introduces security models, assurance policies, security policies and procedures, and technology. It enables students to understand the need for information assurance, identify security vulnerabilities, and devise security solutions that meaningfully raise the level of confidence in computer systems. It teaches students how to design secured database and computer systems.
Prerequisites: COMP-SCI 470.

COMP-SCI 5574 Large Scale Semistructured Data Management Credits: 3
This course will cover topics related to managing large scale semistructured data modeled using the Extensible Markup Language XML and the Resource Description Framework (RDF). This will include storing XML (e.g. natively, using a relational database), indexing XML (e.g. numbering schemes, structural indexes, sequencing paradigms), XML query processing algorithms (e.g. join-based, subsequence-based), RDF DATA STORAGE (e.g. triple stores, graph stores), RDF indexing and SPARQL query processing algorithms. The course will also cover emerging many core processor architectures (e.g. Intel Single-chip Cloud Computer) and the opportunities they provide for building next-generation semistructured data management solutions. Extensive reading of research papers and in-class presentations will be a core part of this class. Grades will be based on in-class presentations of research papers, exams, and a research project (to be done in groups).
Prerequisites: COMP-SCI 470 (or equivalent).

COMP-SCI 5575 Advanced Computer Graphics Credits: 3
Review of transformations, 3D viewing, curve fitting in 3D, generation of surfaces, hidden surface elimination, scan-line coherence, rigid solid representation, shading, color theory.
Prerequisites: COMP-SCI 475.

COMP-SCI 5581 Parallel Computer Architecture I Credits: 3
Parallelism in computer architecture, pipelined processors, array processors and multi-processor systems, algorithms for SISD, SIMD, MISP and MIMD organizations, vectorization, pipelining algorithms.

COMP-SCI 5590 Special Topics Credits: 1-3
Selected topics in specific areas of computer science. May be repeated for credit when the topic varies.

COMP-SCI 5590AW Special Topics Credits: 1-3
COMP-SCI 5590BD Special Topics Credits: 1-3
COMP-SCI 5590CC Special Topics In Computer Science Credits: 1-3
COMP-SCI 5590CI Special Topics Credits: 1-3
COMP-SCI 5590CN Special Topics Credits: 1-3
COMP-SCI 5590HI Special Topics Credits: 1-3
COMP-SCI 5590MT Special Topics Credits: 1-3
COMP-SCI 5590NN Special Topics Credits: 1-3
Selected topics in specific areas of computer science. May be repeated for credit when the topic varies.

COMP-SCI 5590OS Special Topics Credits: 1-3
COMP-SCI 5590PB Special Topics Credits: 1-3
Special Topics
COMP-SCI 5590PG Special Topics In Computer Science Credits: 1-3
COMP-SCI 5590SA Special Topics In Computer Science Credits: 1-3
COMP-SCI 5590WW Special Topics Credits: 1-3
COMP-SCI 5590WX Special Topics Credits: 1-3
COMP-SCI 5590XX Special Topics Credits: 1-3
COMP-SCI 5590YL Special Topics Credits: 1-3
COMP-SCI 5591 Concurrency Models Credits: 3
Concurrency control constructs, P/V primitives, cobegin/coend, monitors, message transmission, rendezvous systems, underlying mathematics of concurrent systems, Petri Nets, liveness (deadlock), reachability, boundedness, invariants, system modeling.
Prerequisites: COMP-SCI 431.

COMP-SCI 5592 Design and Analysis of Algorithms Credits: 3
Combinatorial analysis, searching and sorting, shortest path algorithms, spanning trees, search and traversal techniques, backtracking, branch and bound, heuristics, algebraic simplification and transformation.
Prerequisites: COMP-SCI 303 and COMP-SCI 404.

COMP-SCI 5594 Introduction to Queuing Theory Credits: 3
Review of statistics and probability, stochastic processes, Markov Processes, the basic Poisson process, equilibrium conditions, M/M/1 system with variations local and global balance in networks of queues, open and closed networks.
Prerequisites: COMP-SCI 494R.

COMP-SCI 5595 Mathematical Foundations of Computer Science Credits: 3
Study of the theory, and algorithmic techniques, of the fields of graph theory, combinatorics and number theory, as they relate to their application in the field of computer science.
Prerequisites: COMP-SCI 303, COMP-SCI 494R.

COMP-SCI 5596A Computer Security I: Cryptology Credits: 3
Study of theory, and algorithmic techniques, of the fields of number theory and cryptology, as they are applied in the general area of computer and network security.
Prerequisites: COMP-SCI 291.

COMP-SCI 5596B Computer Security II: Applications Credits: 3
Application of the algorithmic techniques learned in COMP-SCI 5596A to provide suitable security countermeasures to the variety of security threats across the spectrum of computing.
Prerequisites: COMP-SCI 5596A.

COMP-SCI 5597 Directed Readings Credits: 1-3
Readings in an area selected by the graduate student in consultation with a faculty member. Arrangements must be made prior to registration.

COMP-SCI 5598 Research Seminar Credits: 1-3
Graduate research based on intensive readings from the current research literature under the direction of a faculty member. Arrangements must be made prior to registration.

COMP-SCI 5599 Research and Thesis Credits: 1-6
A project investigation leading to a thesis, or written report under the direction of a faculty member. A prospectus must be accepted prior to registration.

COMP-SCI 5622 Advanced Network Analysis Credits: 3
Design and analysis of data networks, comparative analysis of capacity and flow strategies, time-delay/cost trade offs, concentration and buffering in store and forward networks, random access techniques, pure, slotted and reservation type Aloha schemes, carrier sense multiple access.
Prerequisites: COMP-SCI 5522.

COMP-SCI 5623 Network Simulation and Modeling Credits: 3
Simulation and modeling of network topologies and protocols, evaluation of the physical layer, data-link layer, network layer routing algorithms, local and long-haul networks.
Prerequisites: COMP-SCI 5522, COMP-SCI 5532.

COMP-SCI 5651 Distributed Computing for Software Systems Credits: 3
Formal descriptions of problems encountered in distributed computing for architecture. Parameters to formal requirements, operating system support, communications support, process synchronization, and system verification, distinctions between real time and concurrent time. The nature of life cycles, project organization and use of automated tools.
Prerequisites: COMP-SCI 5531 (or COMP-SCI 5551 or COMP-SCI 5570).
COMP-SCI 5690 Advanced Special Topics Credits: 1-3
A lecture course presenting advanced research level topics. This course is intended to allow faculty and visiting scholars to offer special courses in selected research areas.
Prerequisites: Ph.D. Candidacy.

COMP-SCI 5690ND Advanced Special Topics Credits: 1-3

COMP-SCI 5694 Advanced Queueing Theory Credits: 3
Non-Markovian systems such as M/G/1, G/M/1 and G/G/1, solutions of networks of non-Markovian nodes, queueing network approximate solution techniques.
Prerequisites: COMP-SCI 5594.

COMP-SCI 5697 Directed Readings Credits: 1-3
Readings in an area selected by the doctoral student in consultation with a doctoral faculty member. Arrangements must be made prior to registration.

COMP-SCI 5698 Advanced Research Seminar Credits: 1-3
Advanced research by a group of doctoral students based on intensive readings from the current research literature under the direction of one or more doctoral faculty. Original research results of each student are exchanged by presentations and group discussion. Arrangements must be made prior to registration.

COMP-SCI 5699A Research And Dissertation Research In Computer Science Credits: 1-12
Doctoral research in computer science.

COMP-SCI 5899 Required Grad Enrollment Credit: 1

Computer Sci Electrical Engr Courses

CSEE 5110 Network Architecture I Credits: 3
This course provides an introduction to fundamental concepts and principles in the design and implementation of computer communication networks, their protocols, and architectures. Topics to be covered include: layering, and addressing, naming, routing, internetworking, Internet protocols, reliable transfer, congestion control, link control, multiple media access, and network measurement and management.
Prerequisites: COMP-SCI 421A, COMP-SCI 431.

CSEE 5111 Network Architecture II Credits: 3
In this course, advanced principles, protocols, and architectures of computer networks will be studied with specific emphasis on emerging technologies. The focus will be on the latest networking protocol designs with particular attention to the TCP/IP and application layers.
Prerequisites: CSEE 5110.

CSEE 5112 Computer Network Design and Analysis Credits: 3
This course provides an introduction to analytic and simulation modeling of computer networks and network topological design. Topics covered include the analysis of delay and loss systems, topological optimization, network dimensioning, and routing coupled with analysis techniques for network planning and design.
Prerequisites: COMP-SCI 394R, COMP-SCI 421A.

CSEE 5113 Network Routing Credits: 3
Algorithms, protocols and analysis for network routing. Routing in different networks such as circuit-switched networks, Internet, broadband networks, and transmission networks are covered.
Prerequisites: CSEE 5110, CSEE 5112.

CSEE 5130 Queuing Theory and Applications Credits: 3
This course introduces the queuing models and theory to analyze performance of computing and engineering systems in terms of delay, blocking, and buffer utilization. Both continuous and discrete time models are covered, including variations of M/M/1, M/G/1 and GI/M/1 systems using quasi birth-and-death models and matrix analytic techniques. It also covers networks that can be analyzed with product form techniques. Probabilistic reasoning and intuitive understanding is stressed.
Prerequisites: COMP-SCI 394R and MATH 300.

CSEE 5590 Special Topics Credits: 1-3
This course is intended to allow faculty and visiting scholars to offer special courses in selected topics.

CSEE 5690 Advanced Special Topics Credits: 1-3
A lecture course presenting advanced research level topics. This course is intended to allow faculty and visiting scholars to offer special courses in selected research areas.

CSEE 5697 Directed Readings Credits: 1-3
Readings in an area selected by the doctoral student in consultation with a doctoral faculty member. Arrangements must be made prior to registration.

CSEE 5699 Research and Dissertation Research in Telecommunications and Computer Networking Credits: 1-12
Doctoral Research in Telecommunications and Computer Networking.
Electrical Computer Engr Courses

E&C-ENGR 130 Engineering Graphics Credits: 3
Introduction to Engineering Graphics with the use of the Computer Aided Design tools AutoCAD and SolidWorks. Introduction to 2D design with AutoCAD and introduction to 3D design with SolidWorks. Also an introduction to electrical circuit diagrams. No previous 2D or 3D CAD experience is necessary to take this class.

E&C-ENGR 216 Engineering Computation Credits: 4
Development, analysis and synthesis of structured computer programs for solving engineering problems in the Python, MATLAB, and C languages. Introduction to algorithms and data structures.
Prerequisites: MATH 110.

E&C-ENGR 217 Engineering Computation Credits: 2
Students learn to develop, analyze and synthesize structured computer programs for solving engineering problems in the Python, MATLAB, and C languages. This course also provides an introduction to algorithms and data structures. This course is available by approval of the degree program committee if transfer credit has been approved for one of the listed programming languages.
Prerequisites: MATH 110.

E&C-ENGR 226 Logic Design Credits: 3
Design of combinational logic circuits, logic minimization techniques, design of sequential logic circuits, state machine design techniques, digital system design.
Co-requisites: E&C-ENGR 227.

E&C-ENGR 227 Logic Design Laboratory Credit: 1
Laboratory for E&C-ENGR 226. Experimental topics related to the design of combinational and sequential logic systems and small digital systems.
Co-requisites: E&C-ENGR 226.

E&C-ENGR 228 Introduction to Computer Design Credits: 3
This course covers computer organizations and fundamental computer design techniques. It also discusses design of computer data unit, control unit, input-output, microprogramming. Memory systems (RAM memory, Cache memory, interrupts, secondary memory) and direct memory access design is also discussed. Verilog HDL design is introduced and applied to small digital systems.
Prerequisites: E&C-ENGR 226, E&C-ENGR 227.
Co-requisites: E&C-ENGR 229.

E&C-ENGR 229 Introduction to Computer Design Laboratory Credit: 1
This laboratory course covers experimental topics related to the design of digital computer systems and arithmetic circuits which students study in the E&C-ENGR 228.
Prerequisites: E&C-ENGR 226, E&C-ENGR 227.
Co-requisites: E&C-ENGR 228.

E&C-ENGR 241 Applied Engineering Analysis I Credits: 3
Prerequisites: Math 220.

E&C-ENGR 250 Engineering Mechanics and Thermodynamics Credits: 3
This course concentrates on practical concepts in mechanics and thermodynamics for EC-ENGR majors, such as the practical use of forces, moments, couples, centroids, and moment of inertia, friction, manipulating systems of rigid bodies in motion and applying conservation of energy to gases, liquids, and solids. Materials will also be addressed.
Prerequisites: MATH 220, PHYSICS 240.

E&C-ENGR 276 Circuit Theory I Credits: 3
Kirchoff’s circuit laws, Ohm’s Law, nodal and mesh analyses, source transformations, superposition, Thevenin and Norton equivalents, transient analysis of 1st and 2nd order systems. AC circuit analysis, phasors, impedance, sinusoidal steady-state responses, operational amplifiers and PSpice.
Prerequisites: PHYSICS 250 and E&C-ENGR 241.

E&C-ENGR 277 Circuit Theory I Lab Credit: 1
Introduction to the use and limitations of basic instruments used in electrical testing and measurement. Experimental techniques and laboratory safety. Data gathering, interpretation and presentation. Preparation of laboratory reports. Experimental work supporting theoretical concepts developed in E&C-ENGR 276.
Co-requisites: E&C-ENGR 276.
E&C-ENGR 301 Fundamental Topics in Electrical and Computer Engineering Credits: 1-4
Undergraduate topics in electrical or computer engineering.

E&C-ENGR 302 Electromagnetic Waves and Fields Credits: 3
Elements of vector calculus: curl, gradient and divergence differential operations; vector identities; integration of vectors Stokes and Gauss's theorems; Laplacian; review of electrostatic and magnetostatic fields; boundary value problems; boundary conditions; time-harmonic fields and phasors; Maxwell's equations, Poynting vector, vector and scalar wave equations; electromagnetic wave propagation in free-space, lossy and lossless dielectrics and conductors; polarization; reflections at normal and oblique incidences; transmission line parameters; telegraphers equations; input impedance and VSWR; Smith Chart and impedance matching; transients on transmission lines. Co-requisites: E&C-ENGR 303.
Prerequisites: E&C-ENGR 341R, E&C-ENGR 376, PHYSICS 250.

E&C-ENGR 303 Electromagnetic Waves and Fields Lab Credit: 1
The goal of the lab is to complement and demonstrate the main concepts of transmission line and microwave theory using hands on experiments. The experiments will introduce students to microwave sources, components, and transmission lines. Moreover, the experiments will demonstrate the concepts of wave propagation, attenuation, power splitting, reflection, and standing waves. Moreover, students will design and conduct experiments to characterize unknown loads and antennas. Recommended preparation: MATLAB knowledge/proficiency. 
Co-requisites: E&C-ENGR 302.

E&C-ENGR 330 Electronic Circuits Credits: 3
Application of operational amplifiers, semiconductors device physics, elementary analysis and design of analog electronic circuits that utilize diodes, BJTs, and MOSFET's in single and multistage amplifiers with passive loads and power amplifiers; DC biasing, small signal analysis and calculation of frequency responses. The use of CAD (Spice) in the analysis and design of electronic circuits.
Prerequisites: E&C-ENGR 276 and E&C-ENGR 334.

Co-requisites: E&C-ENGR 331.

E&C-ENGR 331 Electronic Circuits Laboratory Credit: 1
Laboratory experiments in the application of operational amplifiers, the analysis, design, and testing of single and multistage amplifiers with passive loads, and the measurement of frequency response.
Prerequisites: E&C-ENGR 276, E&C-ENGR 277.

Co-requisites: E&C-ENGR 330.

E&C-ENGR 334 Semiconductors and Devices Credits: 3
Junction theory, semiconductor diodes and models, bipolar transistors and models, field-effect transistors and models, selected electron devices and models.
Prerequisites: E&C-ENGR 341R, PHYSICS 250

E&C-ENGR 341R Applied Engineering Analysis II Credits: 3
Complex numbers; Euler’s formulas, analytic functions, Taylor and Laurent series; Cauchy residue theorem and application to evaluation of integrals; linear algebra, eigenvalue and eigenvectors; Fourier series and transforms.
Prerequisites: E&C-ENGR 241.

E&C-ENGR 358 Introduction to Control Systems Credits: 3
Study of feedback techniques, with applications to control systems. Includes modeling, applications of Bode plot, root locus, state-variable, and Nyquist methods.
Prerequisites: E&C-ENGR 380.

E&C-ENGR 376 Circuit Theory II Credits: 3
Power, transformers, three-phase circuits, two-port networks, the theory and application of Laplace Transforms.
Prerequisites: E&C-ENGR 276.

Co-requisites: E&C-ENGR 377.

E&C-ENGR 377 Circuit Theory II Lab Credit: 1
Continuation of E&C-ENGR 277 introducing the use of additional instruments used in electrical testing and measurements. Statistical data evaluation methods. Experimental work supporting concepts developed in E&C-ENGR 376.
Prerequisites: E&C-ENGR 277.

Co-requisites: E&C-ENGR 376.
E&C-ENGR 380 Signals and Systems Credits: 3
Continuous and discrete-time signals and systems, frequency response, Fourier analysis of discrete and continuous signals and systems and use of z, Fourier, Discrete Fourier, and Fast Fourier Transforms.
Prerequisites: E&C-ENGR 341R.
Co-requisites: E&C-ENGR 381.

E&C-ENGR 381 Signals and Systems Lab Credit: 1
Computer Laboratory for E&C-ENGR 380. Various signal processing software programs (MATLAB and DSP) are used to investigate properties and applications of continuous and discrete time signals and systems.
Co-requisites: E&C-ENGR 380.

E&C-ENGR 400 Problems in Electrical and Computer Engineering Credits: 1-4
Analytic or experimental problems pertaining to electrical or computer engineering.
Prerequisites: Departmental consent.

E&C-ENGR 401 Topics In Electrical And Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
Prerequisites: Senior standing.

E&C-ENGR 401AN Topics in Electrical Engineering Credits: 1-4
E&C-ENGR 401AR Topics in Electrical Engineering Credits: 1-4
Topics in Electrical Engineering
E&C-ENGR 401AS Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401AV Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401BE Topics in Electrical Engineering Credits: 1-4
Topics in Electrical Engineering
E&C-ENGR 401BI Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401CA Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401CI Topics in Electrical Engineering Credits: 1-4
E&C-ENGR 401DE Special Topics ECE Credits: 1-4
E&C-ENGR 401EC Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401EP Topics in ECE Credits: 1-4
E&C-ENGR 401ES Topics in Electrical Engineering Credits: 1-4
Topics in Electrical Engineering
E&C-ENGR 401FE Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401H Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 401IR Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401KI Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
Prerequisites: Senior standing.

E&C-ENGR 401NM Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401NN Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
Prerequisites: Senior standing.

E&C-ENGR 401PE Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
Prerequisites: Senior standing.

E&C-ENGR 401PG Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
Prerequisites: Senior standing.

E&C-ENGR 401PL Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
Prerequisites: Senior standing.
E&C-ENGR 401PQ Topics in Electrical Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
Prerequisites: Senior standing.

E&C-ENGR 401PV Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 401RD Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
Prerequisites: Senior standing.

E&C-ENGR 401RS Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
Prerequisites: Senior standing.

E&C-ENGR 401SC Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 401SI Topics in Electrical Engineering Credits: 1-4
Topics in Electrical Engineering
E&C-ENGR 401VL Topics in Electrical Engineering Credits: 1-4
E&C-ENGR 401XX Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
Prerequisites: Senior standing.

E&C-ENGR 402 Senior Design I Credits: 2
First capstone design course in electrical and computer engineering. Provides and accounts for laboratory, library, research and other work needed for the development of the project. Stresses oral presentations.
Prerequisites: E&C-ENGR 330 and E&C-ENGR 420 or E&C-ENGR 466.

E&C-ENGR 402WI Senior Design I Credits: 2
First capstone design course in electrical and computer engineering. Provides and accounts for laboratory, library, research and other work needed for the development of the project. Stresses oral presentations.
Prerequisites: E&C-ENGR 330, and E&C-ENGR 420 or E&C-ENGR 466, RooWriter.

E&C-ENGR 403 Senior Design II Credit: 1
Second capstone design course in electrical and computer engineering. Project management, professional practice, ethical and engineering economic considerations and development of written and oral presentation skills. Provides laboratory experience in prototyping, fabrication, and troubleshooting of the design project. Stresses written and oral presentation.
Prerequisites: E&C-ENGR 402.

E&C-ENGR 403WI Senior Design II Credits: 3
Second capstone design course in electrical and computer engineering. Project management, professional practice, ethical and engineering economic considerations and development of written and oral presentation skills. Provides laboratory experience in prototyping, fabrication, and troubleshooting of the design project. Stresses written and oral presentation.
Prerequisites: E&C-ENGR 402WI, RooWriter.

E&C-ENGR 412 Principles of RF/Microwave Engineering Credits: 3
General aspects of TE, TM and TEM mode propagation in waveguides; circular waveguides; optical waveguides; wave propagation on dielectric backed conductors; wire antennas; equivalence principle and aperture antennas; antenna impedance and mutual coupling in arrays; array beamforming; scattering matrix representations; impedance matching; resonators; filters, couplers and power-dividers; microstriplines and striplines; r.f. propagation in wireless and radar systems; conformal mapping techniques and applications (optional).
Prerequisites: E&C-ENGR 302, E&C-ENGR 380, E&C-ENGR 381, MATLAB proficiency.

E&C-ENGR 414 Microwave Engineering for Wireless Systems Credits: 3
Microwave networks; s-, z-, y- and abcd matrices; signal flow graphs; circular waveguides; stripline microstrip characteristics; impedance transformers; power dividers and directional couplers; microwave filters; microwave resonators; active microwave circuits.
Prerequisites: E&C-ENGR 302, E&C-ENGR 380, MATLAB proficiency.

E&C-ENGR 415 Microwave Engineering for Wireless Systems Lab Credit: 1
Design performance simulation of microwave filters and active microwave circuits; comparative analysis of impedance transformers; use of CAD tools in microwave circuit design.
Prerequisites: E&C-ENGR 414.
E&C-ENGR 416 Neural and Adaptive Systems Credits: 3
A hands-on introduction to the theory and applications of neurocomputing. Includes classification, function approximation, supervised and unsupervised learning, time series analysis, and adaptive filtering using different feed-forward and recurrent artificial neural networks.
**Prerequisites:** COMP-SCI 394R, E&C-ENGR 341R.

E&C-ENGR 418 Introduction to Radar Systems Credits: 3
Radar equation; MT, Pulsed Doppler and Tracking Radars; detection of and information from radar signals; radar antennas; transmitters and receivers; radar propagation and clutter.
**Prerequisites:** E&C-ENGR 302, E&C-ENGR 380, E&C-ENGR 381.

E&C-ENGR 420 Advanced Engineering Computation Credits: 2
Programming and computational analysis principles and techniques for various problems in embedded programming, applied computation, and signal processing.
**Co-requisites:** E&C-ENGR 428R and E&C-ENGR 429.

E&C-ENGR 424 Computer Design Credits: 3
Design of general purpose computers including arithmetic and control units, input/output, memory systems, microprogramming and introduction to parallel structures and processing.
**Prerequisites:** E&C-ENGR 226.

E&C-ENGR 426 Microcomputer Architecture and Interfacing Credits: 3
Advanced microprocessor architecture and programming; interfacing and programming of peripherals. Parallel and serial communication, interrupts, direct memory access, coprocessors.
**Prerequisites:** E&C-ENGR 226.

E&C-ENGR 427 Microcomputer Laboratory Credit: 1
Laboratory for E&C-ENGR 426. Microprocessor hardware and software involving interfacing of peripherals to 8-bit and 16-bit microprocessor. Simple D/A conversion, music composition, and various programmable controllers.
**Prerequisites:** E&C-ENGR 227.
**Co-requisites:** E&C-ENGR 426.

E&C-ENGR 428R Embedded Systems Credits: 3
This course examines the hardware/software aspects associated with developing microcontroller-based computer systems. The students learn about the architecture and assembly language for popular microcontrollers and how to take advantage of a variety of input/output options that include binary ports, A/D and D/A converters, communication ports, and interfacing techniques for various applications.
**Prerequisites:** E&C-ENGR 426, E&C-ENGR 427.
**Co-requisites:** E&C-ENGR 429.

E&C-ENGR 429 Embedded Systems Laboratory Credit: 1
The laboratory introduces the students to a variety of challenging design projects using microcontroller interfacing techniques to develop real world applications, such as digital thermometer and digital pressure monitoring systems. Students must produce an individual design project.
**Prerequisites:** E&C-ENGR 426, E&C-ENGR 427.
**Co-requisites:** E&C-ENGR 428R.

E&C-ENGR 430 Microelectronic Circuits Credits: 3
The analysis and design of feedback amplifiers, oscillators and of microelectronic circuits that employ diodes, MOSFETs and BJTs in current mirrors, amplifiers with active loads, differential amplifiers, operational amplifiers, and CMOS Logic gates. The use of CAD (Spice) in the analysis and design of feedback amplifiers and microelectronic circuits.
**Prerequisites:** E&C-ENGR 330, E&C-ENGR 331.
**Co-requisites:** E&C-ENGR 431.

E&C-ENGR 431 Microelectronic Circuits Laboratory Credit: 1
Laboratory experiments in the analysis, design and testing of feedback amplifiers; microelectronic circuits that employ diodes, MOSFETs and BJTs in feedback amplifiers, oscillators, current mirrors, amplifiers with active loads, differential amplifiers, operational amplifiers, and CMOS logic gates.
**Prerequisites:** E&C-ENGR 330, E&C-ENGR 331.
**Co-requisites:** E&C-ENGR 430.
E&C-ENGR 433 Analog Integrated Circuit Design Credits: 3
Principles of the design and analysis of analog integrated circuits. Study of MOS device physics and second order effects, device fabrication and layout, noise, single-stage and differential amplifiers, current mirrors, reference circuits, op amps and frequency compensation. Introduction to CAS circuit design and Cadence design tools.
Prerequisites: E&C-ENGR 276.

E&C-ENGR 436 Power Electronics I Credits: 3
Power electronic device characteristics, important circuit and component concepts, phase controlled rectifiers, line communicated inverters and AC phase control. Includes laboratory projects.
Prerequisites: E&C-ENGR 430.

E&C-ENGR 442 Introduction to VLSI Design Credits: 3
The goal of this course is to familiarize students with the design fundamentals and layout of Very Large Scale Integrated (VLSI) Circuits. The primary focus of this course is complementary MOSFET (CMOS) based digital integrated circuits design and analysis. However, the topics regarding transistor, interconnect, and circuit implementation are relevant to digital, analog and mixed-signal integrated circuits. This course is designed to be a comprehensive foundation for advanced micro- and nano-electronics courses. To familiarize the students with the realities of design complexities they will get exposure to commercial CAD tools in a separate lab co-requisite class. Recommended preparation: Basic Electronics.
Co-requisites: E&C-ENGR 443.

E&C-ENGR 443 Introduction to VLSI Design Laboratory Credits: 3
The goal of this course is to teach basic design concepts and implementation issues of digital integrated circuits. Various methods of designing and optimizing very large scale integrated (VLSI) circuits will be introduced in the lab projects. To familiarize students with the realities of integrated circuit design and layout, they will get exposure to industry-standard computer aided design (CAD) and simulation tools for VLSI circuits and systems. The students will be using these CAD tools in the following levels – schematic, layout, parasitic extraction, and circuit simulation.
Co-requisites: E&C-ENGR 442.

E&C-ENGR 454 Robotic Control and Intelligence Credits: 3
Introduces robotics; robot system characteristics; robot motive power systems; geometric structure of robots; sensors and feedback; control applications and algorithms; data acquisition and output actuation functions; robots and Artificial Intelligence; microprocessor applications in robotics.
Prerequisites: E&C-ENGR 226 (or E&C-ENGR 426), E&C-ENGR 358.

E&C-ENGR 455 Instrumentation and Control Credits: 3
The instrumentation and control of industrial processes and systems, introduction to Programmable Logic Controllers, and simulation modeling of various systems.
Prerequisites: E&C-ENGR 358.

E&C-ENGR 457 Fundamentals of Solar Photovoltaic Cells Credits: 3
The science and engineering of solar cell/solar photovoltaic (PV) spans several disciplines namely physics, chemistry, electronic and electrical engineering. Even though solar cell related researches are carried out in those traditional disciplines but it is not widely taught as a comprehensive course. This course highlights the fundamental science and engineering of solar PV devices, solar energy conversion as well as solar cell manufacturing issues. It covers from basic to modern solar PV devices, including typical solar cell materials, basic device physics, ideal and non-ideal models, device parameters and design, and device fabrication.

E&C-ENGR 458 Automatic Control System Design Credits: 3
Techniques for feedback system design analysis: compensator design examples, state variable methods, non-linear systems, and sampled-data control systems.
Prerequisites: E&C-ENGR 380, E&C-ENGR 358.

E&C-ENGR 459 Introduction to Photovoltaic Systems Credits: 3
The course presents an updated background of world energy production and consumption, a summary of the solar spectrum, how to locate the sun, and how to optimize the capture of its energy, as well as the various components that are used in PV systems. Also studied are why certain photovoltaic (PV) designs are used in certain ways, as well as how the design process is implemented. Economic and environmental issues involved in PV design criteria are discussed along with the most recently available technology, design, and installation practices.

E&C-ENGR 460 Introduction to Power Systems Credits: 3
Magnetic circuitry in general and in machinery; DC machine theory, operation, applications, transformer circuits, synchronous machine theory, operation applications, basic principles of energy conversion, introduction to power electronics, and basic principles of power transmission and control.
Prerequisites: E&C-ENGR 276.
E&C-ENGR 461 Electric Power Lab Credits: 3
Application of fundamentals and concepts of power systems to practical power plan and industrial applications. Operational limitations of all components of power system equipment. Single and Three Phase Circuits, Generators/Alternators, Transformers, Motors, and specialty items (Coronal mass Ejection, Ferroresonance, System Protection).
Prerequisites: E&C-ENGR 466.

E&C-ENGR 462 Symmetrical Components Analysis of Power Systems Credits: 3
Short circuit analysis using symmetrical components. Simultaneous faults and open conductors.
Prerequisites: E&C-ENGR 466.

E&C-ENGR 463 Advanced Sustainable Energy Systems Engineering Credits: 3
Sustainable Energy Systems Engineering focuses on understanding the theory and application of emerging energy technologies, including solar, wind, biomass, oceanic, geothermal, hydropower, fuel cell (hydrogen), nuclear, and other more exotic energy sources. A premise of the course is that a sustainable energy technology must both be technically feasible and economically viable. Renewable energy sources will be highlighted with a focus on projections for a sustainable energy future. Graduate students will be assigned an additional project to work.
Prerequisites: E&C-ENGR 466.

E&C-ENGR 465 Application of Engineering Principles to Station Design Credits: 3
Students will learn the application of engineering principles to circuits (transient and steady state responses), traveling waves, power system equipment, Lorentz forces, heat transfer, moments, load modeling, and written and oral communication. These will be applied to any of the following: a sub/switching station or an auxiliary electric system of a coal fired or combined cycle power plant. Requirements are agreed upon by an engineering firm who will sponsor this course by providing guidance.
Prerequisites: E&C-ENGR 466 with at least a B+ grade and Department Consent.

E&C-ENGR 466 Power Systems I Credits: 3
Electric power system fundamentals, rotating machines in general, synchronous, induction and DC machines, methods of power system analysis and design, modeling of power systems components such as transmission lines, transformers and generators, and analysis of steady state operation of power system under balanced conditions.
Prerequisites: E&C-ENGR 376.

E&C-ENGR 467 Power Systems II Credits: 3
Prerequisites: E&C-ENGR 358, E&C-ENGR 466.

E&C-ENGR 468 Electric Power Distribution Systems Credits: 3
Operation and design of utility and industrial distribution systems including distribution system planning; load characteristics; application of distribution transformers; design of subtransmission lines, distribution substations, primary systems, secondary systems; application of capacitors; voltage regulation and reliability.
Prerequisites: E&C-ENGR 466.

E&C-ENGR 470 Reliability of Electric Power Systems Credits: 3
Principles of reliability as applied to Power Systems with an overview of current methods to measure reliability of Power Systems are introduced. Analytical and Monte Carlo models for component system and state system state duration, with contingency analysis and linear programming for optimal power flow are also covered. Restoration times and cost assessment after component or system failures due to internal or external problems provide focus to practical operating principles.
Prerequisites: COMP-SCI 394R and E&C-ENGR 466.

E&C-ENGR 472 Power Generation Systems Credits: 3
Multi discipline survey of power generation systems and subsystems, including coal-fired steam, co-generation and combined cycle, and combustion turbines. With a goal of reviewing all the major subsystems, this course exposes the electrical engineer to all the mechanical, thermodynamic, and chemical processes of power generation systems.
Prerequisites: E&C-ENGR 466.

E&C-ENGR 474 Introduction to Communication Systems Credits: 3
Introduction to principles and fundamentals of communication systems. Signal representation and analysis, Fourier transform and applications, probability and random variables, analog and digital modulation techniques.
Prerequisites: COMP-SCI 394R, E&C-ENGR 380.

E&C-ENGR 476 Introduction to Wireless Communication Systems Credits: 3
Principles of wireless communication analysis and design. Digital communication basics, cellular radio, wireless PCS communications, multiple access techniques, channel coding and equalization, and standards of digital cellular/PCS systems.
Prerequisites: E&C-ENGR 474.
E&C-ENGR 477 Introduction to Wireless Networking Credits: 3
Principles of the design and analysis of wireless networks. Study of medium access control, administration routing and adaptation to the complexities of the wireless environment. Investigation of networking issues in the IEEE 802.11 family of standards, IEEE 802.15 (Bluetooth), Long Term Evolution, cellular, satellite, ad hoc, and sensor networks.
Prerequisites: COMP-SCI 394R.

E&C-ENGR 480 Digital Signal Processing Credits: 3
Concepts, analytic tools, design techniques used in computer processing of signals: signal representation, sampling, discrete-time system analysis, recursive/non-recursive filters, design/implementation of digital filters.
Prerequisites: E&C-ENGR 380.

E&C-ENGR 484 Digital Image Processing Credits: 3
Fundamentals of digital image processing hardware and software, including digital image acquisition, display, compression, transforms and segmentation. Recommended preparation: Experience in a high-level programming language.
Prerequisites: E&C-ENGR 380.

E&C-ENGR 486 Pattern Recognition Credits: 3
Pattern recognition techniques of applications such as automatic recognition for speech, visual inspection systems, clinical medicine, automatic photographic recognition systems and advanced automation systems.
Prerequisites: E&C-ENGR 380.

E&C-ENGR 491 Internship Credits: 6
Students may participate in structured internships under the joint supervision of an employer and a faculty member. The student must carry out significant professional responsibilities that also have academic merit. The number of credit hours is based on the quality of the academic experience. Available for credit/no-credit only and students must be in good standing with at least 18 credit hours of EC-ENGR courses counting towards the degree. Registration by consent number only; petition forms for E&C-ENGR 491 internships are available in the office of CSEE Division and on the web.
Prerequisites: At least 18 hours of EC-ENGR courses toward the degree.

E&C-ENGR 497 Directed Readings Credits: 1-4
Readings in an area selected by an undergraduate student in consultation with a faculty member. Arrangements must be made prior to registration.

E&C-ENGR 499 Undergraduate Research Credits: 1-3
Completion of a project, including a final written report, under the direction of a faculty member. A prospectus must be accepted prior to registration.

E&C-ENGR 5316 Artificial Neural and Adaptive Systems Credits: 3
This graduate course is a hands-on introduction to theory and applications of neurocomputing, including: classification, function approximation, supervised and unsupervised learning, time series analysis, and adaptive filtering using different feed-forward and recurrent artificial neural networks.
Prerequisites: E&C-ENGR 341R (or COMP-SCI 5590CI).

E&C-ENGR 5318 Dynamical Systems and Complex Networks Credits: 3
An overview of classical dynamical systems, and its application in different fields such as Electrical Engineering (nonlinear circuits), Network Sciences, Epidemiology, and Ecology will be discussed. Phenomena such as chaos, bifurcation, and limit cycles will be examined. This course will also introduce and develop the mathematical theory of Complex Networks with applications to network-driven phenomena in Um Internet, search engines, social networks, the World Wide Web, information and biological networks; spectral graph theory; models of networks including random graphs, preferential attachment models, and the small-world models.

E&C-ENGR 5501AP Special Topics In Electrical Engineering Credits: 1-4

E&C-ENGR 5501NN Special Topics In Electrical Engineering Credits: 1-4

E&C-ENGR 5512 Microwave Remote Sensing Credits: 3
Basic principles of remote sensing including scattering, absorption, transmission, and reflection of microwave energy. Basic radiative transfer theory. Microwave remote sensing systems including altimeters, scatterometers, radiometers, synthetic-aperture systems. Principle applications of remote sensing systems including imaging, atmospheric sounding, oceanographic monitoring, ice-sheet dynamics, etc.
Prerequisites: E&C-ENGR 414.

E&C-ENGR 5513 Advanced Principles of RF/Microwave Engineering Credits: 3
General aspects of TE, TM and TEM mode propagation in waveguides; circular waveguides; optical waveguides; wave propagation on dielectric backed conductors; wire antennas equivalence principle and aperture antennas; antenna impedance and mutual coupling in arrays; array beamforming; scattering matrix representations; impedance matching; resonators; filters, couplers and power-dividers; microstrip lines and striplines; r.f. propagation in wireless and radar systems; conformal mapping techniques ad applications (optional).
Prerequisites: E&C-ENGR 302, E&C-ENGR 380, E&C-ENGR 381, knowledge in Engineering Computation, Technical Writing Skills.
E&C-ENGR 5516 Computer Networks Credits: 3
Concepts and goals of computer networking, structure of computer networks, OSI model and layers, network control, analysis, design and management, data communication techniques including fiber optics, WAN, MAN and LAN architecture and protocols, internetworking, case studies and hand-on studying the performance by analytic modeling and computer simulation.
Prerequisites: E&C-ENGR 424.

E&C-ENGR 5518 Advanced Radar Systems & Techniques Credits: 3
Radar equation; MTI, Pulsed Doppler and Tracking Radars; Detection of and information from Radar Signals; Radar Antennas, Transmitters and Receivers; Radar Propagation and clutter.
Prerequisites: E&C-ENGR 302, E&C-ENGR 380.

E&C-ENGR 5528 Advanced Embedded Systems Credits: 3
This course examines the hardware/software aspects associated with developing microcontroller-based computer systems. The students learn about the architecture and assembly language for popular microcontrollers and how to take advantage of a variety of input/output options that include binary ports, A/D and D/A converters, communication ports, and interfacing techniques for various applications. Graduate students are required to do Embedded Systems lab experiments.
Prerequisites: E&C-ENGR 426, E&C-ENGR 427.

E&C-ENGR 5530 Digital Electronics Credits: 3
Electronic hardware aspects of digital systems. Includes state-of-the-art information on integrated-circuit logic devices and their applications.

E&C-ENGR 5532 Biomedical Instrumentation Credits: 3
Biomedical objectives, physical and engineering principles; optimal equipment design and actual performance of biomedical instrumentation; considers practical instrumentation problem solutions and unsolved problems.
Prerequisites: E&C-ENGR 330.

E&C-ENGR 5533 Analog Integrated Circuit Design Credits: 3
This course will cover the analysis and design of analog and mixed signal integrated circuits, with an emphasis on design principles for realizing state-of-the-art analog circuits. The course will provide the critical concepts by giving physical and intuitive explanations in addition to the quantitative analysis of important analog building block circuits. First-order hand calculations and extensive computer simulations are utilized for performance evaluation and circuit design. Students will be required to complete a final project which will involve the design at the layout level of an analog circuit. Successful designs will be fabricated through the MOSIS Educational Service.
Prerequisites: E&C-ENGR 276, E&C-ENGR 330.

E&C-ENGR 5534 Computer Arithmetic Credits: 3
Computer arithmetic is a sub field of digital computer organization. It deals with the hardware realization of arithmetic functions to support various computer architectures as well as with arithmetic algorithms for firmware/software implementation. A major thrust of digital computer arithmetic is the design of hardware algorithms and circuits to enhance the speed of various numeric operations. Verilog HDL is used as tool to simulate the algorithms and circuits.
Prerequisites: E&C-ENGR 226, E&C-ENGR 5535.

E&C-ENGR 5535 Hdl-Based Digital Systems Design Credits: 3
This course covers hardware design techniques using a Hardware Description Language (HDL). It also discusses several digital system design methodologies, including structural specifications of hardware, HDL-based simulations and testbenches. Courses focus on the synthesis methodologies for use-defined primitives (UPD), data types, operators, Verilog constructs multiplexed datapaths, buses, bus drivers, FSMs, assignments, case, functions, tasks, named events and rapid prototyping techniques with Verlog HDL, ASICs and FPGAs.
Prerequisites: E&C-ENGR 226.

E&C-ENGR 5536 Power Electronics II Credits: 3
Circuit concepts and analysis techniques for transistor switching regulators, thyristor choppers, transistor inverters, self-commutated thyristor inverters and cycloconverters.
Prerequisites: E&C-ENGR 436.

E&C-ENGR 5537 Mixed-Signal Integrated Circuit Design Credits: 3
Modern integrated circuit design often requires the integration of analog and digital circuits on the same chip. This integration provides numerous advantages over purely analog or digital approaches. This course will cover the analysis and design of mixed-signal integrated circuits and will address the challenges of having both analog and digital circuits on the same substrate. Important mixed-signal circuits such as data converters and filters will be studied in detail.
Prerequisites: E&C-ENGR 433 (or E&C-ENGR 5533).
E&C-ENGR 5542 Introduction to VLSI Design Credits: 3
With a focus on CMOS Digital technology this course covers the basic concepts of integrated circuits, various methods of designing VLSI circuits, and techniques to analyze performance metrics (speed, area, power and noise). Clocking, interconnect and scaling issues of integrated circuit will also be discussed. It will cover device, interconnect and circuit level implementation issues of both logic and memory circuits. To familiarize students with the realities of design complexities and layout environment they will get exposure to VLSI CAD tools in the following levels - schematic, layout, extraction and circuit simulation through the labs and projects.

E&C-ENGR 5556 Advanced Instrumentation and Control Credits: 3
The instrumentation and control of industrial processes and systems. Introduction to Programmable Logic Controllers. Simulation modeling of various systems.
Prerequisites: E&C-ENGR 358 (or MEC-ENGR 415).

E&C-ENGR 5557 Fundamentals of Solar Photovoltaic Cells Credits: 3
The science and engineering of solar cell/solar photovoltaic (PV) spans several disciplines namely physics, chemistry, electronic and electrical engineering. Even though solar cell related researches are carried out in those traditional disciplines but it is not widely taught as a comprehensive course. This course highlights the fundamental science and engineering of solar PV devices, solar energy conversion as well as solar cell manufacturing issues. It covers from basic to modern solar PV devices, including typical solar cell materials, basic device physics, ideal and non-ideal models, device parameters and design, and device fabrication.

E&C-ENGR 5558 Automatic Control System Design Credits: 3
Techniques for feedback system design and analysis; computational aids, compensator design and examples, state variable methods, non-linear systems, ad sampled-data control systems.
Prerequisites: E&C-ENGR 226, E&C-ENGR 358.

E&C-ENGR 5559 Introduction to Photovoltaic Systems Credits: 3
The course presents an updated background of world energy production and consumption, a summary of the solar spectrum, how to locate the sun and how to optimize the capture of its energy, as well as the various components that are used in PV systems. Some section of the course has also been added to explain why certain photovoltaic (PV) designs are done in certain ways, as well as how the design process is implemented. Economic and environmental issues as PV design criteria are discussed along with the most recently available technology and design and installation practice.

E&C-ENGR 5560 Electric Power Distribution Systems Credits: 3
Operation and design of utility and industrial distribution systems including distribution system planning; load characteristics; application of distribution transformers; design of subtransmission lines, distribution substations, primary systems, secondary systems, Smart Grid; application of capacitors; voltage regulation and reliability.
Prerequisites: E&C-ENGR 466.

E&C-ENGR 5563 Sustainable Energy System Engineering Credits: 3
This course focuses on understanding the theory and application of emerging energy technologies, including solar, wind, biomass, oceanic, geothermal, hydropower, fuel cell (hydrogen), nuclear, and other more exotic energy sources. A premise of the course is that a sustainable energy technology must both be technically feasible and economically viable. We consequently investigate the above energy technologies and the technological promise, progress, and application of each energy source, as well as its economic opportunities and challenges. Renewable energy sources will be highlighted with a focus on projections for a sustainable energy future.

E&C-ENGR 5565 Auxiliary Electric System Design Credits: 3
This course provides design, operation, contingency analysis and black start requirements of an Auxiliary Electric System (AES) for a coal fired power plant using industry standards (IEEE-666, NEMA MG-1, ANSI C57 and C37 as well as relevant IEC).
Prerequisites: E&C-ENGR 466 or Department Approval.

E&C-ENGR 5567 Power Systems II Credits: 3
This course covers power system matrices, power flow analysis, Gauss-Seidel and Newton-Raphson techniques, fast-decoupled load flow, economic dispatch, transient stability and operation, and power system control.
Prerequisites: E&C-ENGR 358, E&C-ENGR 466.

E&C-ENGR 5568 Economics of Power Systems Credits: 3
Transmission loss formula coefficients, incremental costs and losses, economic scheduling of generation, and applications.
Prerequisites: E&C-ENGR 466, E&C-ENGR 467.

E&C-ENGR 5569 Reliability of Electric Power Systems Credits: 3
Development and use of mathematical models for the calculation and estimation of various measures of reliability in electric power systems, Reliability restoration times and cost assessment of generation, transmission, distribution and composite systems are analyzed.
Prerequisites: COMP-SCI 394R.
E&C-ENGR 5570 Principles of Digital Communication Systems Credits: 3
Principles of random processes, information sources and source coding, modulation and demodulation, block and convolutional error control coding, and equalization.
Prerequisites: COMP-SCI 394R (or equivalent), E&C-ENGR 380.

E&C-ENGR 5572 Antennas & Propagation For Wireless Systems Credits: 3
This course introduces the mathematical aspects of the basic antenna parameters such as vector potential, gain, directivity, impedance, radiation patterns, and develops a comprehensive theory of antenna arrays including the effects of mutual coupling. In-depth modeling studies for wire, aperture and microstrip antennas, is presented; diffraction of plane electromagnetic (TE and TM) waves by perfectly conducting half-planes and wedges- applications to site-specific propagation path modeling in wireless systems.
Prerequisites: E&C-ENGR 341R (or equivalent), E&C-ENGR 412 (or equivalent), written communication skills.

E&C-ENGR 5573 Advanced Electric Power Lab Credits: 3
Advanced applications of concepts experienced in Generating Plants, Substations and Power Plants of fundamentals and concepts of power systems to practical power plan and industrial applications. Operational limitations of all components of power system equipment. Single and Three Phase Circuits, Generators/Alternators, Transformers, Motors, and specialty items (Coronal mass Ejection, Ferroresonance, System Protection).
Prerequisites: E&C-ENGR 466 (or equivalent) and Consent of the Department.

E&C-ENGR 5577 Wireless Communications Credits: 3
Principles of the design and analysis of wireless communications, Study of propagation mechanisms, statistical characterization of wireless channels, diversity and MIMO, spread spectrum and CDMA, Orthogonal Frequency Division Multiplexing (OFDM).
Prerequisites: COMP-SCI 394R (or equivalent).

E&C-ENGR 5578 Multimedia Communication Credits: 3
Visual communication is dominating the Internet and mobile networks. This class covers topics on video signal processing, modeling, compression, and communication. Includes information theory foundations on source coding, lossless coding schemes, video coding framework, as well as the current status of video coding standards and multimedia communication systems.

E&C-ENGR 5579 Digital Signal Processing in Telecommunications Credits: 3
Applications of digital signal processing in telecommunications systems; oversampling and quantization, Delta-Sigma modulation, linear predictive speech coding, adaptive filtering, echo canceller, adaptive receivers and equalizers for wireless communication, digital cellular, CDMA.
Prerequisites: E&C-ENGR 474, E&C-ENGR 480.

E&C-ENGR 5580 Digital Signal Processing Credits: 3
Analysis and representation of discrete-time signals and systems including a discussion of discrete-time convolution, difference equations, the z-transform and the discrete Fourier transform. Similarities with and distinctions between discrete-time and continuous-time signals and systems. Digital network structures for implementation of both recursive (infinite impulse response) and nonrecursive (finite impulse response) digital filters. FFT (Fast Fourier Transform) algorithm for computation of the discrete Fourier transform. Graduate students will be expected to successfully complete a number of additional projects as compared with E&C-ENGR 480.
Prerequisites: E&C-ENGR 380.

E&C-ENGR 5582 Image Analysis and Retrieval Credits: 3
Image is an essential form of information representation and communication in modern society with many applications ranging from photography, entertainment, education, defence to medical. A good understanding of the vast amount of image content at signal, image formation, syntactic and semantic levels, would be essential to create new capability and enabling new applications. The course is project based, teaching both theory and practical algorithm and system solutions for image formation/representation, analysis/understanding, image features computing and aggregation, indexing, hashing, and retrieval, as well as applications in mobile visual search, augmented reality and image based navigation.
Prerequisites: E&C-ENGR 5580 or equivalent.

E&C-ENGR 5584 Advanced Digital Image Processing Credits: 3
Fundamentals of applied grayscale digital image processing, image sensing and acquisition and quantization, basic set and discrete convolution operations with images, intensity transformations and spatial domain filtering via convolutional masks (smoothing, Laplacian and gradient masks), frequency domain filtering via the two-dimensional discrete transform, two-dimensional sampling and Nyquist theory, frequency domain filtering using lowpass/highpass, rectangular, round, Guassian and Butterworth filters, image restoration using noise filtering via mean order-statistic and adaptive filters, bandpass, band reject and notch filters, Weiner filters, image deblurring filters, computed aided tomography (i.e. CAT scans), morphological image processing and image segmentation.
Prerequisites: E&C-ENGR 380 (Or equivalent undergraduate course in signal processing) and prior experience with MATLAB.

E&C-ENGR 5586 Pattern Recognition Credits: 3
Decision functions, distance measures, minimum distance classifiers, hard clustering methods, fuzzy clustering methods, statistical pattern recognition methods, Bayesian classifiers, error probabilities, estimation of density functions, perceptrons, least-mean-square algorithms, feature selection, dimensionality reduction and syntactic pattern recognition.
Prerequisites: COMP-SCI 394R (or STAT 436), a course in high-level programming language.
E&C-ENGR 5588 Communication Theory I Credits: 3
Generalized communication systems, signal processing, signals as random processes, optimum receivers.
Prerequisites: COMP-SCI 394R, a statistics course.

E&C-ENGR 5590 Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590AC Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590AD Special Topics in Electrical and Computer Engineering Credits: 1-4
Special Topics in Electrical and Computer Engineering
E&C-ENGR 5590AE Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590AN Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590AR Special Topics in Electrical and Computer Engineering Credits: 1-4
Special Topics in Electrical and Computer Engineering
E&C-ENGR 5590AS Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590AV Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590AW Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590BB Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590BE Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590BI Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590BP Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590C Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590CA Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590CD Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590CI Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590CL Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590CN Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590CS Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590CT Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590DC Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590DE Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590DS Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590EN Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590ER Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590ES Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590ET Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590FC Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590HF Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590IC Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590IE Special Topics Credits: 1-4
E&C-ENGR 5590IN Special Topics in Electrical and Computer Engineering Credits: 1-4
Special Topics in Electrical and Computer Engineering
E&C-ENGR 5590IP Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590IR Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590MC Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590ML Special Topics in Electrical and Computer Engineering Credits: 1-4
Special Topics in Electrical and Computer Engineering
E&C-ENGR 5590MS Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590MW Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590NA Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590NG Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590NM Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590NN Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590NR Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590NT Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590ON Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590OT Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590PB Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590PD Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590PG Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590PL Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590PL2 Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590PL3 Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590PQ Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590PR Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590PS Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590PV Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590RD Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590RE Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590RF Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590SC Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590SL Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590SM Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590SO Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590SP Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590SR Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590SS Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590ST Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590SU Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590SV Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590SW Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590SX Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590SY Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590SZ Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590XX Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5597 Directed Readings Credits: 1-3
Readings in an electrical and computer engineering areas selected by the graduate student in consultation with a faculty member. Arrangements must be made prior to registration.
E&C-ENGR 5598 Research Seminar Credits: 1-3
Graduate research and/or readings in an electrical and computer engineering area selected by the graduate student in consultation with a faculty member. Arrangements must be made prior to registration.
E&C-ENGR 5599 Research Credits: 1-6
Independent investigation in field of electrical engineering to be presented in the form of a thesis.
E&C-ENGR 5600 Problems Credits: 2-5
Supervised investigation in electrical engineering to be presented in form of report.
E&C-ENGR 5606 Electromagnetic Scattering and Antenna Theory Credits: 3
Dyadic analysis; integral equations and Green’s functions; field theorems-uniqueness, induction equivalence, reciprocity; image and Babinet’s Principles; applications to antennas; method of stationary phase and applications to aperture antennas; array antennas and mutual coupling analysis; method of moments; asymptotic techniques and applications to EM scattering from wedges, cylinders, and spheres; RF propagation path loss modeling and conformal antennas.
Prerequisites: E&C-ENGR 412.

E&C-ENGR 5616 Parallel and Distributed Processing Credits: 3
Covers the fundamental issues involved in designing and writing programs for simultaneous execution. Semaphores and monitor constructs are covered to provide a basis for critical section programming. Expansion of these concepts provide a basis for the analysis and design of control systems for multiprocessor devices and computer networks.
Prerequisites: A systems programming course.

E&C-ENGR 5617 Neural Network Based Computing System Credits: 3
The course will consider computing systems based on neural networks and learning models, along with implementations and applications of such systems.

E&C-ENGR 5618 Artificial Intelligence Credits: 3
Concepts, theories, and models pertaining to neural nets, pattern recognition, learning systems, and programmed problem solving.

E&C-ENGR 5619 Theory of Automata Credits: 3
Sequential machines: Turing machines; deterministic and stochastic automata; applications of automata.

E&C-ENGR 5624 Digital Software Systems Design Credits: 3
Characteristics and parameters of various software subsystem including assemblers, compilers, utility programs, special programming packages, interpreters, and operating systems; and principles of organization into efficient systems.

E&C-ENGR 5633 Nanoelectronics II: Nanoscale Integration & Manufacturing Credits: 3
This course is continuation of Nanoscale Devices and circuits course offered in Fall 2016. In this course students will learn theory about semiconductor processing, and their applications. Limitations of existing process techniques will be discussed, and advances in both physical implementation and circuit/integration techniques will be introduced. Some example of topics that will be covered are: optical lithography, EUV lithography, nanoimprint, implantation, manufacturing aware circuit design, etc. The laboratory work will include modeling and simulation with state-of-the-art semiconductor processing and device simulation tools such as: SRIM, Sentaurus TCAD Process, Sentaurus TCAD Device, etc. Research intensive course.
Co-requisites: E&C-ENGR 5542.

E&C-ENGR 5635 VLSI Systems Design Credits: 3
Course discuss design of the MOSFETs (nFETs and pFETs), and high speed CMOS cascades in VLSI. It also covers the design of various arithmetic circuits, different fast adders, memories, and chip-level physical designs requirements in the VLSI subsystems are also the focus of this course. It uses Verilog HDL/VHDL as a tool to design VLSI systems.
Prerequisites: E&C-ENGR 5535 (or knowledge of VHDL).

E&C-ENGR 5642 Advanced VLSI Design Credits: 3
Course focuses on the issues and challenges of high performance VLSI circuits and systems. The course will be based on papers published in accredited journals and conference proceedings. The goals of this course: (1) Familiarize students with the current and emerging trends, issues and design alternatives of deep submicron and nanoscale IC technologies; (2) Help students acquire the knowledge and skills required for graduate study and research, and professional careers in IC industry; and (3) Teach students how to collect and survey technical materials, develop new research ideas, write research papers, and present technical contents in front of an audience.

E&C-ENGR 5644 Liapunov and Related Nonlinear Methods in Automatic Control Credits: 3
A study of nonlinear methods in automatic control including phase plane analysis, describing function techniques, basic definitions and theorems of Liapunov, methods of generating Liapunov functions, applications of Liapunov's methods, and Popov's methods.

E&C-ENGR 5645 Optimal Control Theory Credits: 3
Analysis and design of dynamic systems using optimal control theory parameter optimization, dynamic optimization, computational methods, differential games.

E&C-ENGR 5646 Stochastic Optimal Estimation and Control Credits: 3
Surveys random process theory; stochastic control and optimization; estimation and filtering based on Kalman-Bucy techniques; stochastic stability; adaptive and learning control systems.

E&C-ENGR 5660 Power-Systems Stability Credits: 3
Performance of synchronous machines under transient conditions, power system stability, system fault computations using symmetrical components; computer solutions of power system problems.

E&C-ENGR 5661 Solid State Energy Conversion Credits: 3
Solid state direct energy conversion; and design of thermoelectric generators and heat pumps.
E&C-ENGR 5662 Power Electronic Drives Credits: 3
Advanced study of dc and ac motor drives controlled by power electronic methods, including phase controlled rectifier de chopper, cycloconverter, variable frequency inverters.
**Prerequisites:** E&C-ENGR 5536.

E&C-ENGR 5664 Lightning and Switching Surges in Power Systems Credits: 3
Overvoltage, switching surge and lightning effects of a power system. Use of grounding and lightning arresters. Effects of surges off and on machines.
**Prerequisites:** E&C-ENGR 466 (or equivalent), E&C-ENGR 467 (or equivalent).

E&C-ENGR 5668 Advanced Computer Methods in Power System Analysis Credits: 3
**Prerequisites:** E&C-ENGR 466, strong background in FORTRAN or C.

E&C-ENGR 5670 Direct Current Power Systems Credits: 3
Characteristic and performance analysis of DC transmission lines and associated conversion systems.

E&C-ENGR 5672 Power Systems Relaying Credits: 3
Theory of relaying systems for power system protection, improvement of power system stability. Relay coordination; performance of relays during transient swings and out-of-step conditions.
**Prerequisites:** E&C-ENGR 466.

E&C-ENGR 5674 Machine Intelligence Credits: 3
Formal languages in relation to natural language processing; formal languages, graphs, and image processing; formal logic and automated theorem proving; natural language processing; aspects of problem solving and heuristic programming.

E&C-ENGR 5675 Introduction to the Modeling and Management of Uncertainty Credits: 3
Theoretical and practical issues in the modeling and management of uncertainty. Topics include probabilistic uncertainty, belief theory and fuzzy set theory. Applications to computer vision, pattern recognition and expert systems.

E&C-ENGR 5676 Advanced Electric Circuit Analysis Credits: 3
Specialized study of mathematical analysis as applied to solutions of circuit networks with fixed and variable parameters.

E&C-ENGR 5677 Network Synthesis Credits: 3
Surveys linear active and nonreciprocal circuit elements, reliability conditions, methods for synthesizing active networks, and practical applications.
**Prerequisites:** E&C-ENGR 5676.

E&C-ENGR 5680 Digital and Sample-Data Systems Credits: 3
Introduces sampling and quantization, design of digital and sample-data systems, digital filters, adaptive sampling and quantization.
**Prerequisites:** E&C-ENGR 480.

E&C-ENGR 5681 Applications Of Transforms Credits: 3
Applications of Laplace and other transform methods of solution of circuit and field problems.

E&C-ENGR 5682 Coding Theory II Credits: 3
Further study of error-correcting codes; ring and cyclic codes, linear switching circuits, burst error codes, codes for arithmetic units, etc.
**Prerequisites:** E&C-ENGR 5579.

E&C-ENGR 5684 Computer Vision Credits: 3
Image processing methods for segmentation, object representation, scene description and scene interpretation.
**Prerequisites:** E&C-ENGR 484.

E&C-ENGR 5688 Communication Theory II Credits: 3
Probability theory of analog and digital communication in the presence of random process noise. Encoding systems, detection systems, optimum receivers.
**Prerequisites:** E&C-ENGR 472.

E&C-ENGR 5690 Advanced Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5690EM Advanced Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5690ET Advanced Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5690ND Special Topics in Electrical and Computer Engineering Credits: 1-3
E&C-ENGR 5697 Advanced Directed Readings Credits: 1-5
Advanced readings in an electrical and computer engineering area selected by the graduate student in consultation with a faculty member. Arrangements must be made prior to registration.
E&C-ENGR 5698 Advanced Research Seminar Credits: 1-5
Advanced Graduate research and/or readings in an electrical and computer engineering area selected by the doctoral student in consultation with a faculty member. Arrangements must be made prior to registration.

E&C-ENGR 5699 Dissertation Research Credits: 1-9
Doctoral Dissertation

Information Technology Courses
INFO-TEC 222 Multimedia Production and Concepts Credits: 3
Multimedia production and concepts will give an overview of multimedia technology and communication theory needed to deliver information and to produce interactive presentations for the web, portable media, and for in-person presentations and demos. The course offers exposure to software, hardware, other multimedia technologies, authoring and copyright matters.
Prerequisites: COMP-SCI 101.

INFO-TEC 290 Special Topics Credits: 1-3
Selected topics in specific subject areas of Information Technology which are not part of the regular offerings.

INFO-TEC 321 Introduction to Computing Resources Administration Credits: 3
This introductory course is designed to give an overview of a wide variety of technical, interpersonal, documentation, and managerial skills needed to become an effective systems administrator.
Prerequisites: COMP-SCI 201R.

INFO-TEC 350 Object-Oriented Software Development Credits: 3
Application of object oriented programming languages as a means to implement object oriented designs. Polymorphism through inheritance and interfaces, design methods such as Responsibility Driven Design and such reusable design techniques as abstract classes and frameworks. Event-driven programming and the Java Swing classes for constructing interactive Graphical User Interfaces (GUIs), the basics of the Unified Modeling (UML) and elementary design patterns.
Prerequisites: COMP-SCI 303.

INFO-TEC 426 Practical Network Security Credits: 3
This course examines common threats to computer network security and discusses various techniques to mitigate those threats. The course material is supplemented with lab assignments that implement network security tools and use them to build a small secure network. It discusses information hiding, traffic monitoring and control, intrusion detection, and security policy. Note: NOT FOR GRADUATE CREDIT.
Prerequisites: COMP-SCI 420.

INFO-TEC 427 Network Analysis Credits: 3
This course focuses on routing in an autonomous system network using Cisco Systems equipment. It will include a review of the fundamental operations needed in AS routing and will then, through lecture and lab assignments, implement various network configurations using Cisco equipment. The concepts addressed will include router, switch and protocol implementations for Cisco Discovery Protocol, Spanning Tree Protocol, VLAN’s, VLAN Trunking Protocol and standard Cisco network routing protocols, among others.
Prerequisites: COMP-SCI 420, INFO-TEC 321.

INFO-TEC 429 Introduction to Cybersecurity Credits: 3
This course introduces students to cybersecurity and its domains. The course will cover topics such as cryptography, software development security, access control, security architecture, security operations, disaster recovery, and physical and environmental security.
Prerequisites: INFO-TECH 321.

INFO-TEC 490 Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490A Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490C Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490D Introduction to Data Compression Credits: 3
This course provides an introduction to information theory, first-order entropy, lossless methods such as Huffman coding, arithmetic coding, and dictionary methods; and lossy and transform coding including image, audio, and video formats. The emphasis in this course is on algorithmic understanding and applications rather than derivation from first principles. Not for graduate credit.
Prerequisites: MATH 210, COMP SCI 303, or equivalent.

INFO-TEC 490GP Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490IT Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.
INFO-TEC 490J Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490JU Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490MI Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490NA Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490NS Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490SD Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490WD Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 491 Internship Credits: 1-6
Students may participate in structured internships under the joint supervision of an employer and a faculty member. The student must carry out significant professional responsibilities that also have academic merit. The number of credit hours is based on the quality of the academic experience. Available for credit/no credit only, and students must be in good standing with at least 18 credit hours of CS/IT counting towards the degree.

Mechanical Engineering Courses

MEC-ENGR 130 Engineering Graphics Credits: 3
Introduction to Engineering Graphics with the use of the Computer Aided Design tools AutoCAD and SolidWorks. Introduction to 2D design with AutoCAD includes: basic features, layer control, geometric constructions, orthographic projections, dimensioning and notes, tolerancing, section views, and working drawings. Introduction to 3D design with SolidWorks includes: part modeling, revolved features, sweeps, lofts, assembly modeling and engineering drawings. No previous 2D or 3D CAD experience is necessary to take this class.

MEC-ENGR 130L Engineering Graphics Lab Credits: 0
Supplemental lab instruction and assistance for MEC-ENGR 130.

MEC-ENGR 131 Engineering Graphics-3D design Credit: 1
Introduction to Engineering Graphics using the 3D Computer Aided Design tool SolidWorks. Introduction to 3D design with SolidWorks includes: part modeling, revolved features, sweeps, lofts, assembly modeling, and engineering drawings. Some previous 2D AutoCAD experience is required to take this class. NOTE: This class starts halfway through the semester by joining in with MEC-ENGR 130 when they finish AutoCAD and begin SolidWorks.

Prerequisites: 2D AutoCAD experience.

MEC-ENGR 219 Computer Programming for Engineers Credits: 3
Analysis and synthesis of structured computer algorithms for solving engineering problems using high level programming tools such as Excel, Matlab, Fortran and/or C++. Prerequisites: MATH 266.

Prerequisites: MATH 266.

MEC-ENGR 220 Electric Circuits Credits: 3
Introduction to electric circuits for civil and mechanical engineering students. Prerequisites: MEC-ENGR 219, PHYSICS 250.

Co-requisites: MEC-ENGR 272.

MEC-ENGR 270 Engineering Analysis I Credits: 3
This is an applied course with emphasis on physics and engineering applications. Topics include engineering applications using conics, parametric equations, polar coordinates, vectors, solid analytic geometry, vector valued functions, multi-variable functions, partial derivatives (including applications), multiple integration, vector calculus including Green's Theorem, Curl and Divergence, line and surface integrals and Stoke's Theorem. Prerequisites: MATH 268.

MEC-ENGR 272 Engineering Analysis II Credits: 3
An applied course using differential equations in solutions to engineering problems. Topics include applications in first-order differential equations, linear higher-order equations, Laplace transform, Series solutions of linear ODEs (Taylor, Power, and Fourier), Numerical solutions, introduction to systems of differential equations. Prerequisites: MATH 268.
MEC-ENGR 285 Engineering Dynamics Credits: 3
Fundamentals of engineering dynamics, including kinematics and kinetics of particles and rigid bodies. Analysis based on forces and accelerations as well as energy and momentum methods.
Prerequisites: CIV-ENGR 275.

MEC-ENGR 299 Engineering Thermodynamics Credits: 3
Fluid properties, work and heat, first law, second law, entropy, applications to vapor and ideal gas processes.
Prerequisites: MATH 268, PHYSICS 250.

MEC-ENGR 301 Fundamental Topics in Mechanical Engineering Credits: 3
Current and new technical developments in mechanical engineering.

MEC-ENGR 306 Computer-Aided Engineering Credits: 3
Prerequisites: CIV-ENGR 219, CIV-ENGR 319, MEC-ENGR 272.

MEC-ENGR 324 Engineering Materials Credits: 3
The nature of the structure of engineering materials. The relationship of material structure to the physical properties. Mechanical behavior of engineering materials.
Prerequisites: CHEM 211, CHEM 211L, CIV-ENGR 276.

MEC-ENGR 351 Fluid Mechanics Credits: 3
Concepts of the statics and dynamics of fluids, with emphasis on principles of continuity, momentum and energy. Boundary layers, dimensional analysis and drag are covered briefly. Thorough treatment of pipe flow.
Prerequisites: MATH 250 or MEC-ENGR 270, and MEC-ENGR 272.

MEC-ENGR 352 Mechanical Instruments Lab Credits: 2
Students will investigate random and systematic errors, and their effects on measurement uncertainty. Students will be introduced to various instrumentation equipment used in measuring displacement, velocity, acceleration, force, strain, fluid pressure, fluid velocity, fluid flow rate, and temperature.
Prerequisites: E&C-ENGR 276, E&C-ENGR 277, CIV-ENGR 276, MEC-ENGR 351, MEC-ENGR 299.

MEC-ENGR 353 Heat Transfer and Fluid Mechanics Lab Credits: 2
Project-based course associated with MEC-ENGR 399 and MEC-ENGR 351. The course emphasis is on experiments related to thermodynamics, heat transfer, and fluid mechanics. Proper experimental methods, data and uncertainty analysis related to thermal and fluids measurements are discussed.
Prerequisites: MEC-ENGR 299 and MEC-ENGR 351.

MEC-ENGR 356 Mechanical Component Design Credits: 3
Introduction to mechanical engineering design and its impact on human history, principles of design with ductile and brittle materials for static and dynamic loading, classical and reliability-based factors of safety, fracture mechanics in design, application to the design of selected machine components.
Prerequisites: CIV-ENGR 276.

MEC-ENGR 360 Thermal System Design Credits: 3
Gas and vapor mixtures, cycles, availability, imperfect gases, thermodynamic relations, combustion, chemical equilibrium, power systems and design projects. Effects of design choices on the earth and living systems.
Prerequisites: MEC-ENGR 299.

MEC-ENGR 380 Manufacturing Methods Credits: 3
Introduction to manufacturing processes with emphasis on those aspects most relevant to methods, problems in force analysis, and practicum and experimentation in machine tool applications.
Prerequisites: MEC-ENGR 324.

MEC-ENGR 385 System Dynamics Credits: 3
Kinematics of mechanical systems. Introduction to the modeling and analysis of dynamic mechanical systems. Computer analysis.
Prerequisites: MEC-ENGR 272, MEC-ENGR 285.

MEC-ENGR 390 Engineering Coop/Internship Credits: 0
Students may participate in structured Engineering Coop/Internship under the supervision of employer. They must carry out significant professional responsibilities and whatever additional assignments are determined by the employer.
Prerequisites: CIV-ENGR 211, MEC-ENGR 285.

MEC-ENGR 399 Heat and Mass Transfer Credits: 3
Prerequisites: MATH 250 or MEC-ENGR 270; and MEC-ENGR 299, MEC-ENGR 351.
MEC-ENGR 399L Heat and Mass Transfer Lab Credit: 1
Project-based course associated with MECH-ENGR 399. Course emphasis is on experiments related to thermodynamics, heat transfer and fluid mechanics. Proper experimental methods, data and uncertainty analysis related to thermal and fluid measurements are discussed.
**Co-requisites:** MEC-ENGR 399.

MEC-ENGR 400 Problems Credits: 1-6
Special design, experimental and analytical problems in mechanical engineering.

MEC-ENGR 401AD Topics in Mechanical Engineering- Advance Dynamics and Modeling Credits: 3
Fundamental principles of advance rigid body dynamics with applications. Special mathematical techniques including Lagrangian and Hamiltonian methods.

MEC-ENGR 401CD Topics in Mechanical Engineering – Applied CFD Credits: 3
The fundamentals of computational fluid mechanics. Introduction to the governing equations and boundary conditions of viscous fluid flows, turbulence and its modelling, and how to solve a fluid flow problem using commercially available CFD software.
**Prerequisites:** MEC-ENGR 285.

MEC-ENGR 401MB Topics in Mechanical Engineering Credits: 3
The purpose of this course is to provide an opportunity for students to gain a hands-on, in-depth understanding of the experimental measurement and analysis techniques used to quantify the biomechanics of human motion.
**Prerequisites:** MEC-ENGR 411

MEC-ENGR 409 Fundamentals of Engineering Review Credit: 1
This course consists of a series of lectures given by different professors and is intended as a review class for all the subjects included in the Fundamentals of Engineering exam. Classes specifically focus on the review of equations and formulas included in the reference handbook published by NCEES.

MEC-ENGR 411 Introduction to Biomechanics Credits: 3
This course is to provide students with an introduction to the engineering principles of biomechanics.
**Prerequisites:** All junior-level coursework must be completed before taking this course.

MEC-ENGR 412 Biodynamics Credits: 3
Introduction to musculoskeletal biomechanics including: computational biomechanics, movement simulation, motor control and musculoskeletal tissues.
**Prerequisites:** MEC-ENGR 411.

MEC-ENGR 413 Experimental Biomechanics of Human Motion Credits: 3
The purpose of this course is to provide an opportunity for students to gain a hands-on, in-depth understanding of the experimental measurement and analysis techniques used to quantify the biomechanics of human motion.
**Prerequisites:** MEC-ENGR 411.

MEC-ENGR 414 Material Science for Advanced Applications Credits: 3
Study of the physical and mechanical metallurgy of alloy systems of interest in engineering applications.
**Prerequisites:** MEC-ENGR 324.
MEC-ENGR 415 Feedback Control Systems Credits: 3
Introduction to feedback control theory for linear dynamic systems. Topics include root locus analysis, frequency response analysis, and controller design.
Prerequisites: MEC-ENGR 385.

MEC-ENGR 420 Human Powered Vehicle Design Lab Credits: 3
Introduction to the science of human powered vehicles (HPV) providing the background necessary for the design of such vehicles. Students will learn and utilize engineering design practices and apply them toward the creation of an aerodynamic, highly engineered land based HPV.
Prerequisites: MATE111A Machine Shop Safety, Consent of instructor.

MEC-ENGR 424 Non-Metallic Engineering Materials Credits: 3
Structures, properties and applications of ceramics, glasses, cermets, polymers and composite materials.
Prerequisites: MEC-ENGR 324.

MEC-ENGR 425 Failure Analysis Credits: 3
Organize and perform a failure investigation. In addition, the course will cover the general procedures for a failure investigation and various failure mechanisms such as ductile fracture, brittle fracture, fatigue, wear, corrosion and elevated temperature.
Prerequisites: MEC-ENGR 324, MEC-ENGR 380.

MEC-ENGR 426 Introduction to Manufacturing Management Credits: 3
The objective of this course is to expose the student to various manufacturing management tools and techniques. Focus is on both the technical tools used in manufacturing as well as on the management tools needed to implement change in the manufacturing environment. As part of this course, students will research a successful company and present an analysis of manufacturing tools and techniques used.

MEC-ENGR 440 Heating and Air Conditioning Credits: 3
General principles of thermodynamics, heat transfer, and fluid dynamics are used to calculate building loads, size equipment and ducts, and evaluate system performance in maximizing human comfort. Consideration of indoor air quality and human health.
Prerequisites: MEC-ENGR 360, MEC-ENGR 399.

MEC-ENGR 441 Intermediate Fluid Mechanics Credits: 3
Topics in potential and viscous flow theory, and computational fluid dynamics.
Prerequisites: MEC-ENGR 351.

MEC-ENGR 444 Composite Materials Credits: 3
A survey of composite materials used in engineering, emphasizing fiber-reinforced composites as well as laminate and particulate composites.
Prerequisites: MEC-ENGR 324.

MEC-ENGR 447 Contracts and Law For Engineers Credits: 3
This course covers a broad range of substantive legal topics giving the student a grounding in the legal implications of certain situations that they may encounter during their careers. The course includes coverage of basic contract law, environmental regulations and compliance, construction law, antitrust law, intellectual property law, civil procedure, employment law, business entities (corporate law) product liability and criminal law and procedure. The objective of the course is to provide students with a fundamental understanding of the wide range of federal and state laws governing behavior in our complicated and rule of law driven society.

MEC-ENGR 449 Environmental Compliance, Auditing & Permitting Credits: 3
This course provides a high level overview of the most important statutes that have been enacted to protect the environment. The course covers regulation of hazardous waste, the Clean Air and Clean Water Acts, the Resource Conservation and Recovery Act, the All Appropriate Inquiry Rule and the law addressing sites contaminated with hazardous substances and the technology options employed to remediate those sites. In addition, the course provides coverage of environmental audits and emergency planning for extremely hazardous substances, the regulation of underground storage tanks, safe drinking water and the National Environmental Policy Act among other statutes.
Prerequisites: Senior standing.

MEC-ENGR 451 Power Plant Design Credits: 3
Preliminary component and system design. Optimum design of boilers, steam turbines, condensers and cooling towers and their integration into a system to minimize production costs and impact on the environment.
Prerequisites: MEC-ENGR 360, MEC-ENGR 399.

MEC-ENGR 452 Advanced Mechanics of Materials Credits: 3
Shear center; unsymmetric bending; curved beams; beams on elastic foundations; thick-walled cylinders. Energy methods. Torsion of noncircular sections. Theories of failure. Plate theory.
Prerequisites: CIV-ENGR 276.
MEC-ENGR 454 Power Generation Systems Credits: 3
Fundamentals of the power industry in a format suitable for all engineering disciplines. Survey of electric power systems, including fossil and nuclear steam cycles, combustion turbines, combines cycles, and renewable such as solar and wind. Introduction to major machinery components, systems, controls, and an overview of fuels, emissions, and emission control technologies. Prerequisites: MEC-ENGR 299.

MEC-ENGR 455 Digital Control of Mechanical Systems Credits: 3
Introduction to digital control systems. Topics include Z-transforms, sampling, stability analysis, and digital controller design. 
Prerequisites: MATH 345, MEC-ENGR 415.

MEC-ENGR 457 Mechatronic System Design Credits: 3
Theory and application of mechatronic systems through course instruction, laboratory activities, and student projects. 
Prerequisites: MEC-ENGR 415.

MEC-ENGR 458 Modern Control Systems Credits: 3
Controller design for multiple-input/multiple-output systems; controllability and observability; stochastic control problems; regulators and tracking controllers; observers. 
Prerequisites: MEC-ENGR 415.

MEC-ENGR 460 Electromechanical Conversion Credits: 3
This course describes the operation and control of electro-mechanical devices such as motors transformers to mechanical civil engineering students, including an introduction to programmable logic controllers and variable speed drives. 
Prerequisites: MEC-ENGR 220, MEC-ENGR 285.

MEC-ENGR 466 Applied Optimization and Decision Modeling Credits: 3
Introduction to mathematical programming techniques and applications. Linear and integer programming, transporation models, multiple objective and goal programming. 
Prerequisites: MEC-ENGR 306.

MEC-ENGR 467 Fuel Cells and Renewable Energy Systems Credits: 3
This course will provide an overview of the fundamental phenomena that govern the design and operation of fuel cells. The thermodynamics of fuel cell systems will be explored including operation of ideal fuel cells and the physical and chemical phenomena that lead to losses within the fuel cell. The course will provide the methods and techniques required to analyze the performance of low, medium, and high temperature fuel cells within an overall energy system. The fueling of fuel cells from renewable resources will also be discussed. 
Prerequisites: MEC-ENGR 399.

MEC-ENGR 468 Introduction to Nuclear Engineering Credits: 3
This course provides an overview of nuclear engineering for non- nuclear engineers. The course deals primarily with nuclear reactors including topics dealing with nuclear and reactor physics, reactor kinetics and controls and radiation environment. The general reactor types are covered in some detail with other topics dealing with licensing, waste management, quality assurance, balance of plant systems (turbine island), and significant nuclear accidents are also covered. Recent design innovations including small modular reactors and fusion are discussed. 
Prerequisites: MEC-ENGR 399.

MEC-ENGR 470 Experimental Design & Analysis Credits: 3
Presentation of concepts and methods of statistical analysis and the design of experiments. Concepts, techniques, interpretation, and use of results are stressed. Focus is on experimental strategy and objectives, and the application of the methods discussed, rather than the mechanics of derivation. Major sections include: a review of hypothesis testing and basic analysis of variance techniques; single factor experiments including 2k and 3k design, confounding, and Taguchi philosophy; nested and split plot designs; analysis of covariance and an introduction to response surface methods. 

MEC-ENGR 484 Vibration Analysis Credits: 3
Vibration theory with application to mechanical systems. 
Prerequisites: MEC-ENGR 385, MEC-ENGR 306.

MEC-ENGR 486 Applied Finite Element Analysis Credits: 3
The study of advanced simulation techniques for the solution to engineering problems. The use of Finite Element Method toward solving mechanical, structural, vibration and potential flow problems will be explored. The use of current commercial simulation tools will be used extensively. 
Prerequisites: MEC-ENGR 306, MEC-ENGR 324, MEC-ENGR 385, MEC-ENGR 399.

MEC-ENGR 491 Internship Credits: 6
For International students who must register to cover off-campus employment which is approved as related to their degree by their departmental advisor and ISAO.
MEC-ENGR 492 Mechanical Design Synthesis I Credits: 3
Introduction to and application of the Engineering Design Process including: product development, needs identification, benchmarking, information gathering, concept generation, creativity methods, concept selection, professional and ethical responsibilities, and computer-aided design and rapid prototyping applications. A comprehensive design project including 3D CAD models and functioning prototypes is required.
Prerequisites: MEC-ENGR 130, MEC-ENGR 131

MEC-ENGR 493 Intermediate Dynamics Credits: 3
Theoretical discussion of kinematics and dynamics of rigid bodies in three-dimensional space. General theory of rotating coordinate frames, Euler’s angles, Euler’s equations of motion, angular momentum, work-energy principles, and Kane’s method.
Prerequisites: MEC-ENGR 285.

MEC-ENGR 495 Vehicle Dynamics Credits: 3
Analysis and prediction of the dynamic behavior of ground vehicles utilizing computer simulation. Mechanics of various suspension systems, tire-roadway interaction, vehicle aerodynamics, vehicle handling and steering characteristics.
Prerequisites: MEC-ENGR 385.

MEC-ENGR 496WI Mechanical Design Synthesis Credits: 3
Modern design theories and methodologies, with emphasis on the initial stages of the design process. Effect of design choices on the earth and living systems. Principles of embodiment design and life-cycle considerations. A comprehensive group design project is required. The course satisfies the Writing Intensive requirement.
Prerequisites: MEC-ENGR 492 or ANCH 309, RooWriter.

MEC-ENGR 499 Intermediate Heat Transfer Credits: 3
Advanced topics in conduction, convection and radiation heat transfer including transient heat transfer, phase change and heat exchangers.
Prerequisites: MEC-ENGR 399, MEC-ENGR 351.

MEC-ENGR 5500 Problems Credits: 1-6
Supervised investigation in mechanical engineering to be presented in the form of a report.

MEC-ENGR 5501 Advanced Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5501AC Advanced Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5501AD Advanced Topics in Mechanical Engineering Credits: 3

Advanced Topics in Mechanical Engineering

MEC-ENGR 5501CD Advanced Topics in Mechanical Engineering Credits: 3

Advanced Topics in Mechanical Engineering

MEC-ENGR 5501E Advanced Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5501EC Advanced Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5501EM Advanced Topics in Mechanical Engineering Credits: 3

MEC-ENGR 5501GS Advanced Topics in Mechanical Engineering Credits: 3

Advanced Topics in Mechanical Engineering
MEC-ENGR 5501H Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501HP Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501ID Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501IF Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501L Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501M Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501MB Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501MS Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501N Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501OE Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501P Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501PL Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501PL1 Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501PL2 Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501R Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501RE Advanced Topics in Mechanical Engineering Credits: 3
MEC-ENGR 5501SB Advanced Topics in Mechanical Engineering Credits: 3
MEC-ENGR 5501SM Advanced Topics In Mechanical Engineering Credits: 2
This course is for high school science teachers who have attended the ASM International Second Year Teachers Camp and have demonstrated the use of camp material in the classroom.

MEC-ENGR 5501TC Advanced Topics in Mechanical Engineering Credits: 2
This course is for high school science teachers who have attended the ASM International Teachers Camp and have demonstrated the use of camp material in the classroom.

MEC-ENGR 5501TS Advanced Topics In Mechanical Engineering Credits: 1-3
MEC-ENGR 5501VA Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501Z Advanced Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5505 Imaging Techniques in Materials Science Credits: 3
Introduction to imaging techniques, including x-rays, neutron beams, electron beams and acoustic energy, to study material properties and structure.
Prerequisites: MEC-ENGR 324.

MEC-ENGR 5511 Introduction to Biomechanics Credits: 3
This course is to provide students with an introduction to the engineering principles of biomechanics.

MEC-ENGR 5512 Biomechanics Credits: 3
Introduction to musculoskeletal biomechanics including: computational biomechanics, movement simulation, motor control and musculoskeletal tissues.
Prerequisites: MEC-ENGR 5511.

MEC-ENGR 5513 Experimental Biomechanics of Human Motion Credits: 3
The purpose of this course is to provide an opportunity for students to gain a hands-on, in-depth understanding of the experimental measurement and analysis techniques used to quantify the biomechanics of human motion.
Prerequisites: MEC-ENGR 5511.

MEC-ENGR 5514 Material Science for Advanced Application Credits: 3
Study of the physical and mechanical metallurgy of alloy systems of interest in engineering applications.
Prerequisites: MEC-ENGR 324.

MEC-ENGR 5525 Failure Analysis Credits: 3
Organize and perform a failure investigation. In addition, the course will cover the general procedures for a failure investigation and various failure mechanisms such as ductile fracture, brittle fracture, fatigue, wear, corrosion and elevated temperature.
Prerequisites: MEC-ENGR 324, MEC-ENGR 380.

Cross Listings: MEC-ENGR 425.
MEC-ENGR 5526 Introduction to Manufacturing Management Credits: 3  
The objective of this course is to expose the student to various manufacturing management tools and techniques. Focus is on both the technical tools used in manufacturing as well as on the management tools needed to implement change in the manufacturing environment. As part of this course, students will research a successful company and present an analysis of manufacturing tools and techniques used.  
**Cross Listings:** MEC-ENGR 426.

MEC-ENGR 5533 Statistical Thermodynamics Credits: 3  
Statistical methods of evaluating thermodynamic properties. Elements of quantum mechanics, statistical mechanics and kinetic theory applied to topics of engineering thermodynamics.  
**Prerequisites:** MEC-ENGR 360, MEC-ENGR 399.

MEC-ENGR 5542 Introduction to Computational Fluid Dynamics and Heat Transfer Credits: 3  
Introduction to the principles and development of the finite-difference approximations to the governing differential equations of viscous and inviscid fluid flow, as well as heat transfer. Introduction to discretization methods and the calculation of flow fields, convection, diffusion and conduction.  
**Prerequisites:** MEC-ENGR 399, MEC-ENGR 441.

MEC-ENGR 5543 Industrial Refrigeration Credits: 3  
Introduction to analysis of the thermodynamic cycles and equipment used in Industrial Refrigeration. Applications of Industrial Refrigeration are also discussed.  
**Prerequisites:** MEC-ENGR 299.

MEC-ENGR 5544 Contracts and Law for Engineers Credits: 3  
This course covers a broad range of substantive legal topics giving the student a grounding in the legal implications of certain situations that they may encounter during their careers. The course includes coverage of basic contract law, environmental regulations and compliance, construction law, antitrust law, intellectual property law, civil procedure, employment law, business entities (corporate law) product liability and criminal law and procedure. The objective of the course is to provide students with a fundamental understanding of the wide range of federal and state laws governing behavior in our complicated and rule of law driven society.  
**Cross Listings:** MEC-ENGR 447

MEC-ENGR 5547 Environmental Compliance, Auditing & Permitting Credits: 3  
This course provides a high level overview of the most important statutes that have been enacted to protect the environment. The course covers regulation of hazardous waste, the Clean Air and Clean Water Acts, the Resource Conservation and Recovery Act, the All Appropriate Inquiry Rule and the law addressing sites contaminated with hazardous substances and the technology options employed to remediate those sites. In addition, the course provides coverage of environmental audits and emergency planning for extremely hazardous substances, the regulation of underground storage tanks, safe drinking water and the National Environmental Policy Act among other statutes.  
**Prerequisites:** ANCHOR 201/CIV-ENGR 211, MEC-ENGR 285.

MEC-ENGR 5549 Power Generation Systems Credits: 3  
Fundamentals of the power industry in a format suitable for all engineering disciplines. Survey of electric power systems, including fossil and nuclear steam cycles, combustion turbines, combined cycles, and renewable such as solar and wind. Introduction to major machinery components, systems, controls, and an overview of fuels, emissions, and emission control technologies.  
**Prerequisites:** MEC-ENGR 299.  
**Cross Listings:** MEC-ENGR 454.

MEC-ENGR 5553 Mechatronics System Design Credits: 3  
Theory and application of mechatronic systems through course instruction, laboratory activities, and student projects.  
**Prerequisites:** MEC-ENGR 352 and MEC-ENGR 415.  
**Cross Listings:** MEC-ENGR 457.

MEC-ENGR 5556 Intermediate Dynamics Credits: 3  
Development of kinematics and dynamics of rigid bodies in three-dimensional space including: general theory of rotating coordinate frames, Eulers angles, Eulers equations of motion, angular momentum, work-energy principles, and Kane's method for creation and simulation of dynamic models.  
**Prerequisites:** MEC-ENGR 285.

MEC-ENGR 5560 Electromechanical Conversion Credits: 3  
This course describes the operation and control of electro-mechanical devices such as motors transformers to mechanical civil engineering students, including an introduction to programmable logic controllers and variable speed drives.  
**Prerequisites:** MEC-ENGR 220 (or equivalent).  
**Cross Listings:** MEC-ENGR 460.
MEC-ENGR 5563 Engineer in Society - Construction Law Credits: 3
This course introduces professional, ethical, and legal concepts of the professional practice of engineering, and the role of the consulting engineer, specifically in the A/E/C industry during the design, procurement, and construction processes. A conceptual framework is developed for understanding the industry standard agreements (AIA, EJCDC, ConCensus) and the various participants roles and duties in project execution. The engineer’s “professional standard of care” is examined and revisited throughout the semester, specifically what it means to be a “Professional Engineer”. Emphasis is placed on project and contract management and the applicable law. Skills are developed in finding online resources of law, legal, and practice advice relevant to the practice of engineering and the construction industry

MEC-ENGR 5565 Project Finance Credits: 3
This class introduces students to the financial concepts faced by engineers in the businesses in which they work and for the projects to which they are assigned. Throughout the course students are reminded of the impact of two key variables – money and time – on their work. While not attempting to turn good engineers into mediocre accountants, the course includes a strong emphasis on managerial accounting. Students will learn how to read and apply financial statements and how to use these same financial concepts in developing pro formas to evaluate and support major capital investments. The effect of time on the value of money, appropriate discount factors, and the internal rate of return will be explored in the class. Students will learn to combine these financial factors with electronic spreadsheets to evaluate business opportunities and practices. All students will be required to develop a comprehensive financial model to evaluate/justify a real world capital project.

MEC-ENGR 5567 Fuel Cells and Renewable Energy Systems Credits: 3
This course will provide an overview of the fundamental phenomena that govern the design and operation of fuel cells. The thermodynamics of fuel cell systems will be explored including operation of ideal fuel cells and the physical and chemical phenomena that lead to losses within the fuel cell. The course will provide the methods and techniques required to analyze the performance of low, medium, and high temperature fuel cells within an overall energy system. The fueling of fuel cells from renewable resources will also be discussed.

Prerequisites: MEC-ENGR 399.

Cross Listings: MEC-ENGR 467.

MEC-ENGR 5568 Introduction to Nuclear Engineering Credits: 3
This course provides an overview of nuclear engineering for non-nuclear engineers. The course deals primarily with nuclear reactors including topics dealing with nuclear and reactor physics, reactor kinetics and controls and radiation environment. The general reactor types are covered in some detail with other topics dealing with licensing, waste management, quality assurance, balance of plant systems (turbine island), and significant nuclear accidents are also covered. Recent design innovations including small modular reactors and fusion are discussed.

Prerequisites: MEC-ENGR 399.

Cross Listings: MEC-ENGR 468.

MEC-ENGR 5570 Experimental Design & Analysis Credits: 3
Presentation of concepts and methods of statistical analysis and the design of experiments. Concepts, techniques, interpretation, and use of results are stressed. Focus is on experimental strategy and objectives, and the application of the methods discussed, rather than the mechanics of derivation. Major sections include: a review of hypothesis testing and basic analysis of variance techniques; single factor experiments including 2k and 3k design, confounding, and Taguchi philosophy; nested and split plot designs; analysis of covariance and an introduction to response surface methods.

MEC-ENGR 5572 Advanced Statistics Credits: 3
The objective of this course is to review the concepts and methods of undergraduate first course in statistical analysis and extend the student's understanding to cover topics typically covered in a second course in applied engineering statistics. Concepts, techniques, interpretation, and use of results are stressed. Focus is on the application of the methods discussed, rather than the mechanics of derivation.

Prerequisites: CIV-ENGR 319 (or equivalent).

MEC-ENGR 5574 Linear Programming for Engineering Optimization Credits: 3
This course will cover techniques and applications of engineering optimization using linear programming techniques. The main topics will be the simplex algorithm, sensitivity analysis, duality, network models, and integer programming. Main applications will include transportation, shipaments, and utility planning. Stochastic models, game theory, non-linear programming, and heuristic optimization techniques will be briefly mentioned, but not explored in detail. At the conclusion of the course the student should be able to formulate and solve optimization problems in several areas of engineering.

Prerequisites: MEC-ENGR 306.

MEC-ENGR 5586 Applied Finite Element Analysis Credits: 3
The study of advanced simulation techniques for the solution to engineering problems. The use of Finite Element Method toward solving mechanical, structural, vibration and potential flow problems will be explored. The use of current commercial simulation tools will be used extensively.

Prerequisites: CIV-ENGR 275, MATH 5517, MEC-ENGR 130.

MEC-ENGR 5595 Microscale Heat Transfer Credits: 3
Review of existing models. Concept of thermal lagging and the second-law admissibility. Applications to low temperatures, thermal processing of thin-film devices; amorphous materials; advanced composites.

Prerequisites: MEC-ENGR 399.
MEC-ENGR 5599 Research Credits: 1-99
Independent investigation in field of mechanical engineering to be presented as a thesis.

MEC-ENGR 5601 Doctoral Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5601AC Doctoral Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5601C Doctoral Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5601F Doctoral Topics in Mechanical Engineering Credits: 3

MEC-ENGR 5601G Doctoral Topics in Mechanical Engineering Credits: 3

MEC-ENGR 5601H Doctoral Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5601J Doctoral Topics in Mechanical Engineering Credits: 3

MEC-ENGR 5601R Doctoral Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5601SA Doctoral Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5603 Directed Readings in Mechanical Engineering Credits: 1-3
Faculty supervised readings course.

Prerequisites: Graduate standing.

MEC-ENGR 5610 Seminar Credit: 1
Review recent investigations, projects of major importance in mechanical engineering.

MEC-ENGR 5616 Theory of Plasticity Credits: 3
Plastic yield conditions and stress-strain relations. Behavior of elastic-perfectly plastic members. Plain strain in plastic members.

Prerequisites: MEC-ENGR 5621, MEC-ENGR 5622.

MEC-ENGR 5618 Multibody System Dynamics Credits: 3
Fundamental principles of advanced rigid body dynamics with applications. Special mathematical techniques including Lagrangian and Hamiltonian methods.

Prerequisites: MEC-ENGR 285, MEC-ENGR 401ID

MEC-ENGR 5621 Continuum Mechanics Credits: 3
Introductory course in the mechanics of continuous media. Basic concepts of stress, strain, constitutive relationships; conservation laws are treated using Cartesian tensor notation. Examples from both solid and fluid mechanics investigated.

Prerequisites: CIV-ENGR 276, MATH 345, MEC-ENGR 351.

MEC-ENGR 5622 Theory of Elasticity Credits: 3

Prerequisites: MEC-ENGR 5621.

Cross Listings: CIV-ENGR 5622.

MEC-ENGR 5623 Theory Of Plates And Shells Credits: 3
Bending of plates with various loading and boundary conditions. Deformations, stresses in thin shells.

Prerequisites: MEC-ENGR 5621.

Cross Listings: CIV-ENGR 5623.

MEC-ENGR 5624 Theory of Elastic Stability Credits: 3
Buckling of columns, beams, rings, curved bars, thin plates, shells.

Prerequisites: MEC-ENGR 5621.

Cross Listings: CIV-ENGR 5624.

MEC-ENGR 5627 Dynamics of Machinery Credits: 3
Dynamic balancing or rotating and reciprocating components of turbo-machinery and internal combustion engines. Gas torque analysis, vibration stress analysis and equivalent systems. Numerical and graphical techniques.

Prerequisites: MEC-ENGR 484.

MEC-ENGR 5630 Boundary Layer Theory Credits: 3
Fluid motion at high Reynolds Number. Derivation of Navier-Stokes equations and boundary layer equations. Methods of solution. Transition to turbulent flow. Completely developed turbulent flow.

Prerequisites: MEC-ENGR 441.
MEC-ENGR 5636 Heat Transfer-Convection Credits: 3
Concepts including fluid dynamics, conservation laws, thermal boundary layer theory, forced convection in laminar and turbulent flows, and free convection will be developed and applied.
**Prerequisites:** MEC-ENGR 399

MEC-ENGR 5637 Heat Transfer-Radiation Credits: 3
**Prerequisites:** MEC-ENGR 399.

MEC-ENGR 5639 Introduction to Two Phase Flow Credits: 3
The fundamental principles of two-phase flow with applications to a variety of homogeneous mixture as well as separated liquid-liquid, gas-solid, liquid-solid, and gas-liquid flow problems, including steady or transient, laminar or turbulent conditions.
**Prerequisites:** MEC-ENGR 441.

MEC-ENGR 5643 Industrial Refrigeration Credits: 3
Introduction to and analysis of the thermodynamic cycles and equipment used in Industrial Refrigeration. Applications of Industrial Refrigeration are also discussed.

MEC-ENGR 5660 Combustion Credits: 3
Study of advanced topics in flames and combustion. Detonation and deflagrations, supersonic combustion, air pollution.
**Prerequisites:** MEC-ENGR 441.

MEC-ENGR 5679 Dynamics of Structures Credits: 3
Study of the dynamic behavior of structures. Analysis of equivalent lumped parameter systems for the design of structures in a dynamic environment.
**Prerequisites:** CIV-ENGR 276 (or CIV-ENGR 421), MEC-ENGR 484 (or MATH 345, MEC-ENGR 285).

MEC-ENGR 5685 Advanced Vibration Analysis Credits: 3
Advanced topics in vibration theory and its application to Mechanical systems. Topics include vibration analysis of multi-degree of freedom, distributed and nonlinear systems, random vibration analysis, and vibration control.
**Prerequisites:** MEC-ENGR 484.

MEC-ENGR 5699 Research And Dissertation Credits: 1-9
Doctoral dissertation research.
Civil Engineering and Mechanical Engineering Department

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Professors Emeriti:
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Educational Objectives (PEOs)
The Civil Engineering program educational objectives (PEOs) support the missions of the institution and SCE. The PEOs are published on the Civil & Mechanical Department web-site (http://sce.umkc.edu/about/civil-mechanical-engineering/) under the CME mission statement.

The Civil Engineering Program at UMKC expects the graduates within a few years of graduation to attain the following:

• Graduates are successfully employed in an engineering or related field or accepted into a graduate program.
• Graduates apply the necessary problem-solving, design, and application skills for successful careers in Civil Engineering.
• Graduates utilize their educational foundation and communication skills to effectively lead, work, and communicate in diverse career paths.
• Graduates succeed in the complex social, business, and technical environment in which their engineering contributions will be utilized.

The Mechanical Engineering program educational objectives (PEOs) support the missions of the institution and SCE. The PEOs are published on the Civil & Mechanical Department web-site (http://sce.umkc.edu/our-school/cme-department.asp) under the CME mission statement.

The Mechanical Engineering Program at UMKC expects the graduates within a few years of graduation to attain the following:
• Graduates are successfully employed in an engineering or related field or accepted into a graduate program.
• Graduates apply the necessary problem-solving, design, and application skills for successful careers in Mechanical Engineering.
• Graduates utilize their educational foundation and communication skills to effectively lead, work, and communicate in diverse career paths.
• Graduates succeed in the complex social, business, and technical environment in which their engineering contributions will be utilized.

Scholarships
A list of scholarships and financial aid is available on the Financial Aid webpage at http://www.sfa.umkc.edu/. Application information regarding these scholarships is available from the department office. Engineering students are also eligible to apply for SCE Scholarships (http://sce.umkc.edu/current-students/affordability/sce-scholarships/). Information regarding these scholarships may also be obtained from the Department office.

Advising and Registration
The civil and mechanical engineering programs assign a faculty member to be the student's academic advisor throughout the duration of their study. Students may request a change of advisor assignment. Students are required to meet with their faculty advisor every semester prior to registration for the following semester. The faculty advisor guides the student in selecting courses that are necessary for completion of degree requirements, and answers questions regarding elective course programs and options. During the advising period, the faculty advisor determines whether the student is meeting degree requirements by reviewing the program advisement form. Any exceptions to the normal procedure must be approved by written petition. Specific information regarding registration is found in the UMKC Class Schedule and on the UMKC Web site.

Program Activities
Students enjoy many group activities outside the classroom. They participate in regional and national competitions, design and erect bridges and concrete canoes, and participate in Engineers’ Week activities. They have been winning their share of awards and have had fun doing it.

The School of Computing and Engineering has a number of societies open to all engineering students. These include the SCE Student Council, and the student chapters of the American Society of Civil Engineers (ASCE), the Missouri Society of Professional Engineers (MSPE), the National Society of Black Engineers (NSBE), the Society of Women Engineers (SWE) and the Structural Engineering Association of Kansas and Missouri (SEAKM). In these organizations, students have an opportunity to develop their career through association with other civil engineering students, the faculty, and active members of the profession. The chapters hold monthly meetings, field trips and other activities such as competing in the steel bridge and concrete canoe competitions. Membership is open to all engineering students.

Several national engineering honorary societies have also been established to recognize academic excellence. Tau Beta Pi is for all engineering majors. Assembly of Civil Engineering Scholars (ACES) is an honorary society for civil engineering students.

Undergraduate

Undergraduate Degrees:
• Bachelor of Science in Civil Engineering
• Bachelor of Science in Mechanical Engineering

Admissions
High school students planning to apply to the School of Computing & Engineering are strongly encouraged to take a college preparatory program that emphasizes mathematics, science and communication skills.

First-time college student applicants to the undergraduate program in information technology will be admitted if they obtain:

1. An ACT mathematics score of at least 25 and
2. An ACT composite score of at least 24

First-time college student applicants who do not meet the above criteria but do meet UMKC general admission requirements will have their applications reviewed by a faculty committee for admission. Applicants who are not admitted to SCE but do meet UMKC general admission requirements may be admitted to University College.

Students without the prerequisite preparation must take the needed coursework before enrolling in courses required for the bachelor’s degree. Students seeking re-admission must have been in good academic standing when last enrolled. Otherwise, re-admission requires a formal review by the undergraduate program committee.

Transfer applicants must have at least 24 credits of transferable college credit, an overall 2.0 GPA on a 4.0 scale in all coursework, which includes repeated coursework, attempted at previous institutions. Transfer applicants without a 2.0 or higher college GPA must submit a petition for admission.
International Transfer Credit

Unless the international institution is recognized by ABET, only sophomore level (200 level) or below coursework may be transferred by petition and review of the academic committee. Final acceptance of transfer credit by petition requires completion of one academic year of probation. Any identified deficiencies during that probation period will, on the review of the academic committee, require remedial coursework.

Visiting Student Admission

Visiting students must meet the Civil & Mechanical Engineering Department (CME) regular admission requirements. Visiting students who wish to take undergraduate civil or mechanical engineering coursework will be required to show proof of having met prerequisites to the course desired to be taken with a grade of "C" or better. Registration requires permission from the department. Enrollment of visiting students in undergraduate civil or mechanical coursework will be done the week before the start of the semester (for summer semester, registration will be done two weeks before the start of the semester) on a space available basis unless an exception is approved by the CME Department. Visiting undergraduate students cannot use the KCASE program for SCE classes.

Academic Regulations for Civil and Mechanical Engineering

Transfer of General Education Credits

Students Transferring from Other Missouri Institutions with a Certified 42-Hour General Education Core Curriculum

Students transferring into an undergraduate engineering program with a certified 42-hour block of general education credit from another Missouri institution typically would be required to complete additional degree specific coursework for baccalaureate degrees depending on the different degree programs pursued. A student should consult with an academic advisor to obtain the specific details.

UMKC’s General Education Core (p. 2250) for Students Transferring to Another Missouri Institution

Civil Engineering students wishing to complete the General Education core should also consult with an academic advisor by contacting the Department Office at (816) 235-5550.

Minimum Grade Requirement

A grade of "C" (2.0) or better must be earned in every course required in the civil or mechanical engineering degree programs.

Audits

A student cannot take a course for audit and later expect to take the same course for credit in the degree program. For that reason, students must not audit any courses required in their program, unless credit has already been established. To audit an elective course, written consent from both the student’s advisor and the instructor of the course is required. After the first week of classes, a student cannot change from credit to audit or audit to credit.

Repeat of Courses

No courses taken within the University of Missouri system may be repeated if a grade of C or better has been obtained. All grades in each attempt count toward cumulative grade-point calculation.

Petitions

To receive an exception from stated departmental guidelines or curriculum, the student must file a petition in the Department Office. To receive transfer credit for courses taken at another institution after admission to Civil Engineering, the student must file a petition in the Department Office. If the petition is denied by the CME Academic Appeals Committee, the student may appeal the decision to the Dean of the School of Computing & Engineering.

Withdrawals

A student may withdraw from a course without academic assessment by completing a Drop/Add form before the deadline given in the UMKC Schedule of Classes.

Academic Standing

The University tries to assure that students progress satisfactorily toward their goals and receive clear warning when they do not. To this end, engineering adheres to a clear policy, but provides for exceptions in unusual cases. The interest of the student is paramount.

A student is in good academic standing when term and cumulative grade-point averages (GPA) from the University of Missouri system are 2.0 or higher in courses necessary for an engineering degree. Students will be placed on academic probation if, when in good academic standing, they earn a term GPA of less than 2.0 but greater than 1.0. Students may also be placed on academic probation at the time of initial admission or readmission because they do not fully meet the minimum standards. Students earning a term GPA of less than 1.0, or a term GPA of less than 2.0 while on academic probation become ineligible for continuation of studies. The academic standing statements found at the top of semester grade reports are defined as follows:

- Now In Good Standing - Term and cumulative GPA greater than 2.0.
- Now On Probation - Term or cumulative GPA less than 2.0.
- Academically Ineligible - Term GPA less than 1.0 or two consecutive semesters with term or cumulative GPA less than 2.0.
When a student becomes academically ineligible, the student is not allowed to continue academic studies. Any pre-registration of course work will be canceled. In order to continue academic studies, the student must appeal to the Civil and Mechanical Engineering Department in writing.

**Now in Good Standing**
A student whose term and cumulative grade-point averages (GPA) from the University of Missouri system are 2.0 or higher in courses necessary for an engineering degree, is in good academic standing. A term is defined as a fall semester, spring semester or summer session.

**Now on Probation**
A student will be placed on academic probation if, when in good academic standing, the student earns a term GPA of less than 2.0 but greater than 1.0. A student may also be placed on academic probation at the time of initial admission or readmission because the student does not fully meet the minimum requirements.

**Probationary Term**
After being placed on academic probation, the student’s next semester of enrollment (the probationary term) must result in the completion of at least 12 hours of course work necessary for an engineering degree. A student will be returned to good standing if, at the end of the probationary term, the student’s term and cumulative GPAs are 2.0 or higher in courses necessary for an engineering degree.

**Academically Ineligible**
A student will become academically ineligible if any of the following apply:

- The student receives a term GPA of less than 1.0.
- The student receives a term GPA of less than 2.0 for the probationary term.
- The student receives a cumulative GPA of less than 2.0 for the probationary term.
- The student fails to complete at least 12 hours of course work necessary for an engineering degree during the probationary term.

**Satisfactory Academic Progress**
Students will be expected to maintain continuous satisfactory academic progress and can be removed from the civil or mechanical engineering program after evaluation by the Civil and Mechanical Engineering Academic Committee if it finds that satisfactory academic progress is not being made (see CME Student Handbook for details).

**Academic Appeals**
If a student has become academically ineligible, the student may be allowed to continue academic studies, provided that the student successfully appeals to the Academic Appeals Committee. The primary concern of the Appeals Committee is the likelihood of the student’s future success. Accordingly, any appeal should include causes for the student’s past poor performance and reasons for expecting better performance in the future. When the Appeals Committee allows a student to re-enroll, it may set conditions such as courses to be taken, minimum grades, total hours, etc. to which the student must adhere.

If a student has become academically ineligible and wishes to enroll on a part-time basis, the student must appeal to the Academic Appeals Committee and document the reasons for part-time enrollment. Such documentation might include a written doctor’s statement for medical reasons or a written employer’s statement for work reasons. If work is given as the reason for part-time enrollment, the following guidelines shall apply:

<table>
<thead>
<tr>
<th>Work Hours/Week</th>
<th>Minimum Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>40+</td>
<td>3</td>
</tr>
<tr>
<td>30+</td>
<td>6</td>
</tr>
<tr>
<td>20+</td>
<td>9</td>
</tr>
<tr>
<td>0-19</td>
<td>12</td>
</tr>
</tbody>
</table>

**Application for Graduation**
Students should apply for graduation when they register for their final semester’s course work. Requirements for graduation include the following:

1. Thirty (30) hours must be taken at the University of Missouri-Kansas City.
2. The overall grade-point average in all enrollments in all University of Missouri course work must be at least 2.0.
3. The grade-point average in the last enrollment in all engineering course work (CE, ECE, ME) must be at least 2.0.

A grade-point average deficiency may be removed by repeating a course or by taking additional courses that qualify as eligible electives in the curriculum.

Students are required to take the Academic Profile Test, which is a general education test, before they can graduate. This test is administered by the UMKC Office of Testing Services (816) 235-5820 and may be taken any time after the student has completed a total of 80 credit hours from any institution. The object of this test is to assess the effectiveness of university course work and the score is not part of the student’s permanent record.

Students are also required to complete a department exit interview in the last semester that they are enrolled.
Graduate

- Graduate Programs
  - Engineering and Construction Project Management Certificate (p. 803)
  - Master of Science in Civil Engineering
  - Doctoral Studies in Civil Engineering
  - Graduate Courses in Civil Engineering (CIV-ENGR)
- Civil Engineering Specialty Areas
- Mechanical Engineering
  - Career Opportunities in Mechanical Engineering
  - Program Description in Mechanical Engineering
  - Graduate Programs
    - Master of Science in Mechanical Engineering
    - Doctoral Studies in Mechanical Engineering
    - Mechanical Engineering Specialty Areas

Admissions

Engineering and Construction Project Management Certificate

The Engineering and Construction Project Management Certificate is a 12 credit hour graduate certificate offered through the School of Computing & Engineering at the University of Missouri-Kansas City. The certificate is especially appropriate for post-baccalaureate working professionals in the Kansas City area who wish to pursue further studies in engineering project management, specifically in construction management. The certificate consists of 9 credit hours of required courses and 3 credit hours of an elective course at the 5500-level or above. Students must maintain 3.0 graduate grade point average (GPA) while enrolled.

Admission Requirements

Either a baccalaureate degree in engineering or a baccalaureate degree in another field combined with construction-related work experience is required. A grade point average (GPA) of at least 3.0 in the last 60 credit hours of undergraduate coursework is required. Pre-program requirements may be specified in case the Bachelor's degree is not in civil or mechanical engineering. The following documents are required for admission consideration:

- Application for admission
- Official transcripts of all college coursework

In addition, a statement of purpose is required for admission. CONDITIONAL admission may be granted when minimum GPA requirements are not met; however, other indicators promise applicant's success in the program.

After admission, the student is required to meet with a faculty advisor.

Master's Program in Civil or Mechanical Engineering

The UMKC Civil & Mechanical Engineering Master’s Programs offer graduate students the opportunity to get a state-of-the-art education in dynamic, challenging and professionally significant specialty areas.

Degrees Offered

- Master of Science in Civil Engineering (MSCE)
- Master of Science in Mechanical Engineering (MSME)

Assistantships

The school has numerous assistantship positions available each semester. Typically, awards are for quarter-time or half-time support and may include tuition fee waivers.

Admission Requirements

A baccalaureate degree in civil or mechanical engineering or related disciplines with a grade point average (GPA) of at least 3.0 in the last 60 hours of undergraduate engineering coursework is required. Pre-program requirements may be specified in case the Bachelor's degree is in a discipline different to which the candidate is applying.

The following documents are required for admission consideration:

- Application for admission
• Official transcripts of all college coursework
• TOEFL scores are required for international students without prior U.S. degrees. The minimum required score is 80. **TOEFL requirements may be waived for applicants with a baccalaureate degree from an ABET-accredited program.**
• Official results of the Graduate Record Exam (GRE) are required for all applicants. A cumulative score of at least 302 (verbal + quantitative) and a minimum of 158 on the quantitative portion of the examination is required. **GRE requirements may be waived for applicants with a baccalaureate degree from an ABET-accredited program who have passed the Fundamentals of Engineering (FE) exam.**

In addition, three letters of recommendation from professors at previous institutions or mentors at work are highly encouraged.

CONDITIONAL admission may be granted when the minimum GPA and GRE requirements are not met; however, other indicators promise applicant’s success in the program. To be fully admitted as a “Regular Master’s Degree Seeking” student, the candidate must obtain a grade of "B" or better in the first nine-hours of coursework; submit a satisfactory GRE score or an FE certificate, as specified above, within the first semester of their program; and complete any other conditions.

International Students: Use the international application form and return the application, along with required supporting materials, to the University of Missouri-Kansas City, Office of International Student Affairs, 5100 Rockhill Road, Kansas City, MO 64110-2499, USA. The telephone number is (816) 235-1113.

After admission, the student is required to attend a departmental orientation session and meet with a faculty advisor.

**Doctoral Program in Civil or Mechanical Engineering**

For the Doctoral Program in Civil or Mechanical Engineering, admission information can be found at the School of Graduate Studies website under the link for prospective students: http://sgs.umkc.edu. The telephone number is (816) 235-1111.

UMKC offers an Interdisciplinary Ph.D. (IPHD) program which consists of two disciplines:

• Primary Discipline
• Co-Discipline

Students in civil or mechanical engineering are encouraged to choose Engineering as the Primary Discipline. Admission requirements and Co-Discipline options can be found at the School of Graduate Studies website under the link for Engineering.

**Graduate Academic Regulations**

• With permission of the student's graduate advisor, up to six credit hours of transfer graduate coursework may be transferred from other non-University of Missouri institutions.
• With permission of the student's graduate advisor, up to 14 credit hours of transfer graduate coursework may be transferred from other University of Missouri institutions.
• However, at least 16 credit hours of graduate coursework must be taken at UMKC.

A graduate student must maintain a cumulative GPA of 3.0 for all graduate coursework taken during the course of graduate studies. Should the cumulative GPA fall below 3.0, the student will be placed on probation. A student on probation must bring the cumulative GPA to a 3.0 by the end of the next semester or face possible dismissal. Students should apply for graduation when they register for their final semester of coursework. All students must complete and file with the Department Office both the UMKC Application for Graduation form and the Departmental Program of Study form. Students selecting the project or thesis option must also file a Departmental Report of the Master’s Examining Committee form. Students selecting the thesis option must file a Master’s Thesis Report form and have their thesis approved by the UMKC Graduate School.

**Transfer of Graduate Credits**

• With permission of the student’s graduate advisor, up to six credit hours of transfer graduate coursework may be transferred from other non-University of Missouri institutions.
• With permission of the student’s graduate advisor, up to 14 credit hours of transfer graduate coursework may be transferred from other University of Missouri institutions.
• However, at least 16 credit hours of graduate coursework must be taken at UMKC.

**Academic Standing**

A graduate student must maintain a cumulative GPA of 3.0 for all graduate coursework taken during the course of graduate studies. Should the cumulative GPA fall below 3.0, the student will be placed on probation. A student on probation must bring the cumulative GPA to a 3.0 by the end of the next semester or face possible dismissal.
Application for Graduation

Students should apply for graduation when they register for their final semester of coursework. All students must complete and file with the Department Office both the UMKC Application for Graduation form and the Departmental Program of Study form. Students selecting the project or thesis option must also file a Departmental Report of the Master’s Examining Committee form. Students selecting the thesis option must file a Master’s Thesis Report form and have their thesis approved by the UMKC Graduate School.

Civil Engineering Courses

CIV-ENGR 111 First Year Cornerstone Credits: 3
An exploration of the diverse emphasis specific career opportunities of Civil Engineers, with a goal of providing students the needed fundamental skills, knowledge and resources for identifying the most appropriate career path(s) consistent with the student’s interests, skills, and objectives.

CIV-ENGR 190 Special Topics Credits: 1-3
Selected introductory topics in the area of computing. May be repeated for credit when topic varies.

CIV-ENGR 211 The Engineering Enterprise Credits: 3
The engineering enterprise course covers the essential topic of engineering economics for engineering students. The primary objective of this course is to motivate the student to think as a blend of an engineer and a businessperson to make them more effective decision makers related to engineering applications.

CIV-ENGR 275 Engineering Statics Credits: 3
Fundamentals of statics; static equilibrium; internal forces; introduction to elements of mechanics of elastic materials, and properties of areas.

Prerequisites: PHYSICS 240.

CIV-ENGR 276 Strength Of Materials Credits: 3
The course introduces and emphasizes the concepts and analysis methods for stress and strain, torsion, bending and shear stresses in beams, combined stresses, and deflection theory using a calculus based methodology. Introduction to buckling and energy methods may be included.

Prerequisites: CIV-ENGR 275.

CIV-ENGR 318 GIS for Engineers Credits: 3
This course covers the fundamental concepts and methods for use of GIS software used to solve engineering applications and problems. The course uses module based practical learning to apply and integrate foundational knowledge, develop the skills required to model various types of imagery data, incorporate this data into projects for management and design, and provide the skills necessary for students to depict ideas and design graphically. A personal computer capable of running the software is required for the course. Non-engineering majors by instructor permission only.

Prerequisites: MEC-ENGR 130 and CIV-ENGR 319.

CIV-ENGR 319 Engineering Computation and Statistics Credits: 3
A review of descriptive statistics, statistical distribution functions and application to engineering problems. Introduction to hypothesis testing, analysis of variance, correlation/regression and design of factorial experiments.

Prerequisites: MEC-ENGR 219 (or corequisite), and MATH 268.

CIV-ENGR 320 Introduction to Factorial Design Credit: 1
Concepts and techniques of ANOVA and factorial design to supplement standard undergraduate statistics courses. Recommended preparation: Undergraduate statistics course.

CIV-ENGR 321 Structural Analysis Credits: 4
This course introduces the basic analysis and computer methods that are required to analyze basic structural elements and simple structures. Topics covered in this course include design loads, analysis of statically determinate beams, frames and trusses, shear and moment diagrams, influence diagrams, beam deflections, statically indeterminate structures (beams and frames), displacement methods, introduction to energy and matrix methods.

Prerequisites: CIV-ENGR 276.

CIV-ENGR 323 Structural Steel Design Credits: 3
Basic principles of structural steel design. Design of beams, axially loaded members, columns, and bolted and welded connections.

Prerequisites: CIV-ENGR 321.

CIV-ENGR 335 Soil Mechanics Credits: 3
Detailed study of physical and mechanical properties of soil governing its behavior as an engineering material.

Prerequisites: CIV-ENGR 276, CHEM 211, CHEM 211L, Machine Shop Safety.

CIV-ENGR 342 Water and Wastewater Treatment Processes Credits: 3
Methods for determining and characterizing water quality, effects of pollution on streams and lakes, and an introduction to engineering systems for the distribution, collection and treatment of water and wastewater.

Prerequisites: CIV-ENGR 351, CHEM 211 and CHEM 211L.
CIV-ENGR 351 Fluid Mechanics Credits: 3
Concepts of the statics and dynamics of fluids, with emphasis on principles of continuity, momentum and energy. Boundary layers, dimensional analysis and drag are covered briefly. Thorough treatment of pipe flow.
Prerequisites: MATH 345 or MEC-ENGR 272, MEC-ENGR 285.

CIV-ENGR 357 Engineering Hydraulics Credits: 3
Analysis and design of closed conduit systems for water supply; fundamentals of open channel flow; principles of pumping and hydropower generation; transients and control of surge pressures in pipelines.
Prerequisites: CIV-ENGR 351.

CIV-ENGR 378WI Civil Engineering Materials Credits: 3
This course provides students with a working knowledge of the design and performance of Asphaltic Concrete (AC) and Portland Cement Concrete (PCC) mixtures through understanding the properties and requirements of the component materials and their effects on subsequent performance. An understanding of the design, production process, construction, durability, and operations and maintenance will be provided. A significant portion of this course requires hands-on laboratory testing and analysis. Roadway and highway pavements will provide a primary context within which these concrete systems will be studied. This course is classified as writing intensive (WI) will involve a significant amount of writing practice to be able to effectively communicate in a manner fitting a young engineering graduate of UMKC.
Prerequisites: CHEM 211, CHEM 211L, CIV-ENGR 276, Machine Shop Safety, RooWriter.

CIV-ENGR 390 Engineering Coop/Internship Credits: 0
Students may participate in structured Engineering Coop/Internship under the supervision of employer. They must carry out significant professional responsibilities and whatever additional assignments are determined by the employer.
Prerequisites: CIV-ENGR 211, MEC-ENGR 285.

CIV-ENGR 3EP UL Civil Engineering Elective Credits: 99
Transfer credit

CIV-ENGR 400 Problems Credits: 1-4
Directed investigation of civil engineering problems.

CIV-ENGR 401ES Special Topics in Civil Engineering Credits: 3
Prerequisites: CIV-ENGR 335.

CIV-ENGR 401HA Hydrologic Analysis and Design Credits: 3
Practical implementation of hydrologic and hydraulic system design in accordance with published design criteria and using methods and numerical modeling accepted by local, state, and national government agencies.
Prerequisites: CIV-ENGR 357.

CIV-ENGR 401J Project Finance Credits: 1-3
This class introduces students to the financial concepts faced by engineers in the businesses in which they work and for the projects to which they are assigned. Throughout the course students are reminded of the impact of two key variables – money and time – on their work. While not attempting to turn good engineers into mediocre accountants, the course includes a strong emphasis on managerial accounting. Students will learn how to read and apply financial statements and how to use these same financial concepts in developing pro formas to evaluate and support major capital investments. The effect of time on the value of money, appropriate discount factors, and the internal rate of return will be explored in the class. Students will learn to combine these financial factors with electronic spreadsheets to evaluate business opportunities and practices. All students will be required to develop a comprehensive financial model to evaluate/justify a real world capital project.

CIV-ENGR 401PM Project Management of Integrated Design and Construction Credits: 3
Provide a body of knowledge that includes the principles, knowledge areas, skills, and tools applicable to successful project management for the performance of integrated design and construction of capital projects, specifically as applicable to the post-award period. This post-award period is the time from the formal Project award by the owner through Project design and construction, testing, commissioning, close-out and completion of the Project warranties.

CIV-ENGR 401SD Special Topics In Civil Engineering Credits: 3
Study of soil behavior under cyclic and dynamic loading conditions. Foundation design for vibratory loadings. Introductory earthquake engineering including dynamic ground response for determination of dynamic soil properties. Evaluation of soil liquefaction potential during earthquakes by both laboratory and in situ filed methods. Design consideration for embankments and earth retaining structures under seismic loading conditions. Construction blasting and vibration effects on underground systems.
Prerequisites: CIV-ENGR 335.

CIV-ENGR 401SV Topics in Civil Engineering Credit: 1
This course provides a fundamental introduction to the elements of surveying. Basics including terminology, coordinate systems, equipment, legal descriptions, and calculations will be taught in the classroom. Field laboratory sessions will introduce the students to setting up basic equipment, running a level loop, and laying out a site based on plan designs.
CIV-ENGR 404 Project Management of Integrated Design and Construction Credits: 3
Provide a body of knowledge that includes the principles, knowledge areas, skills, and tools applicable to successful project management for the performance of integrated design and construction of capital projects, specifically as applicable to the post-award period. This post-award period is the time from the formal project award by the owner through project design and construction, testing, commissioning, close-out and completion of the project warranties.

CIV-ENGR 405 Capital Project Delivery Methods Credits: 3
Provide a body of knowledge that acquaints students with the capital project delivery methods in both public and private business sectors of the U.S design – construction industry. Project delivery means how a capital project comprising both design and construction is planned, procured, contracted and implemented by an owner to achieve desired objectives. Delivery methods discussed in this class include traditional design – bid- build, design – build, design-build plus added services such as operations and maintenance, CM @ Risk and other approaches. Roles and responsibilities of owners, owner consultants, and design and construction firms are presented and discussed.

CIV-ENGR 409 Fundamentals of Engineering Review Credit: 1
This course consists of a series of lectures and is intended as a review class for all the subjects included in the Fundamentals of Engineering exam. Classes specifically focus on the review of equations and formulas included in the reference handbook published by NCEES.

CIV-ENGR 411 Civil Engineering Systems Design I Credits: 2
Comprehensive and realistic design project using the systems approach. Design choices and their effect upon the environment. Design constraints include constructability, minimization of environmental impact and cost-effectiveness. Managerial and professional aspects of design practice.

Prerequisites: CIV-ENGR 497.

Co-requisite: CIV-ENGR 422WI.

CIV-ENGR 412 Civil Engineering Systems Design II Credits: 3
Continuation of CIV-ENGR 411.
Prerequisites: CIV-ENGR 411, RooWriter.

CIV-ENGR 415 Engineering Leadership and Ethics Credits: 3
Analysis of leadership, including 360-degree assessment of students’ leadership. Discussion of leadership cases and application to engineering careers. Frequent analysis of engineering ethics cases using the NSPE Code.

CIV-ENGR 421 Matrix Methods of Structural Analysis Credits: 3
The basic components of this class are matrix theories and applied computer analysis methods using a computer-based structural analysis software. These include: (1) study of matrix formulation of direct stiffness method, virtual work principle and formulation of displacement-based frame elements, theories and significance of geometric and material nonlinearity; (2) Sap2000-based analysis of 2D/3D trusses and 2D/3D frames considering different loading and material/geometric nonlinearity.

Prerequisites: CIV-ENGR 321.

CIV-ENGR 422WI Reinforced Concrete Design Credits: 3
Basic principles of reinforced concrete design. Design of beams for flexure and shear; design of short and slender columns. Bond stress development. Footing design.
Prerequisites: CIV-ENGR 321, RooWriter.

CIV-ENGR 423 Advanced Structural Steel Design Credits: 3
Design of steel structures and bridges. Topics include composite beams, plate girder design, and moment resistant connections.
Prerequisites: CIV-ENGR 323.

CIV-ENGR 425 Prestressed Concrete Design Credits: 3
Design and behavior of prestressed concrete structures; material and system of pretensioned and post tensioned systems; prestress losses; flexure, shear, bond, deflections and partial prestress in determinate structures; indeterminate beams-introduction.
Prerequisites: CIV-ENGR 422WI.

CIV-ENGR 427 Advanced Reinforced Concrete Design Credits: 3
Advanced topics in the design of footings, retaining walls, two-way floor slabs, torsion and continuous structures, shear friction, strut and tie design, precast design.
Prerequisites: CIV-ENGR 422WI.

CIV-ENGR 429 Design of Structures for Blast and Fire Credits: 3
General overview of Blast Design; risk assessment and design criteria; simplifies Blast Effects Analysis; ground shock, material response; antiterrorism design considerations; weapons effects and mitigation; internal explosions; progressive collapse analysis; and introduction to Fire Design.
CIV-ENGR 431 Fundamentals of Geomaterial Characterization Credits: 3
A geomaterial is any construction material comprised primarily of soil. This course overviews state-of-the-art instrumental techniques for analysis of the physio-chemical properties of soils, aggregates, hydraulic concrete, and asphaltic concrete. Evaluation techniques will be applied to determining beneficial reuse opportunities for industrial by-product materials from the Kansas City region.

**Prerequisites:** CIV-ENGR 335, CIV-ENGR 378WI.

CIV-ENGR 432 Foundation Engineering Credits: 3
Design of basic foundation structures, footings, retaining walls, pile foundations, dams.

**Prerequisites:** CIV-ENGR 335.

CIV-ENGR 436 Advanced Soil Mechanics Credits: 3
Theoretical soil mechanics as applied to solution of specific engineering problems.

**Prerequisites:** CIV-ENGR 335.

CIV-ENGR 442 Hydraulic Structures Credits: 3
A review of the history and hydraulic design procedures for a variety of hydraulic structures including spillways, water measurement structures, canal structures and energy dissipation structures.

**Prerequisites:** CIV-ENGR 452.

CIV-ENGR 446 Limnology Credits: 3
Physical, biological and chemical issues important in surface fresh waters. Includes carbonate chemistry, algal assay and thermocline analysis.

**Prerequisites:** CHEM 211, MATH 345.

CIV-ENGR 447 Contracts and Law for Engineers Credits: 3
This course covers a broad range of substantive legal topics giving the student a grounding in the legal implications of certain situations that they may encounter during their careers. The course includes coverage of basic contract law, environmental regulations and compliance, construction law, antitrust law, intellectual property law, civil procedure, employment law, business entities (corporate law) product liability and criminal law and procedure. The objective of the course is to provide students with a fundamental understanding of the wide range of federal and state laws governing behavior in our complicated and rule of law driven society.

CIV-ENGR 449 Environmental Compliance, Auditing and Permitting Credits: 3
This course provides a high level overview of the most important statutes that have been enacted to protect the environment. The course covers regulation of hazardous waste, the Clean Air and Clean Water Acts, the Resource Conservation and Recovery Act, the All Appropriate Inquiry Rule and the law addressing sites contaminated with hazardous substances and the technology options employed to remediate those sites. In addition, the course provides coverage of environmental audits and emergency planning for extremely hazardous substances, the regulation of underground storage tanks, safe drinking water and the National Environmental Policy Act among other statutes.

CIV-ENGR 452 Hydraulics of Open Channels Credits: 3
This is a first course in the fundamentals of open channel (free surface) water flow. Over ninety-nine percent of all the water that is moved on the planet’s surface is by free surface flow. Study of free surface flow is essential to the study of storm water drainage systems, flood control, water and wastewater treatment and the study of the form and processes of river evolution. This class provides the fundamental physical principles of free surface flow as a prelude to a significant number of other topics that pertain to engineering and geomorphic analysis.

**Prerequisites:** CIV-ENGR 351.

CIV-ENGR 453 Hydraulics and Variability of Rivers Credits: 3
Introduction to the concepts of alluvial channel behavior, evolution and change due to natural and man-induced modifications to streams and watersheds. Numerous case studies of river behavior are studied from the perspective of hydraulics, geomorphology and sediment transport.

**Prerequisites:** CIV-ENGR 357.

CIV-ENGR 454 River Stability and Scour Credits: 3
Bridge hydraulics, stream stability, scour at bridge piers and abutments, hydraulic modeling of floods, countermeasures for protection of bridge infrastructure.

**Prerequisites:** CIV-ENGR 452.

CIV-ENGR 456 Urban Hydrology Credits: 3
Analysis of urban drainage systems in accordance with published municipal criteria. This course is an in-depth course for senior undergraduate students interested in the hydrological sciences and for graduate students specializing in water resources. Specifically this course will focus on the engineering procedures and techniques specified by municipalities to design and maintain efficient, safe, storm drainage systems. This course also focuses on the unique issues associated with estimating and designing for rainfall/runoff in urban metropolitan areas, including channel and reservoir routing of floods through stream channels, retention structures, culverts, and storm sewers.

**Prerequisites:** CIV-ENGR 357.
CIV-ENGR 463 The Engineer in Society Credits: 3
This course introduces professional, ethical, and legal concepts of the professional practice of engineering, and the role of the consulting engineer, specifically in the A/E/C industry during the design, procurement, and construction processes. A conceptual framework is developed for understanding the industry standard agreements (AIA, EJCDC, ConCensus) and the various participants roles and duties in project execution. The engineer’s “professional standard of care” is examined and revisited throughout the semester, specifically what it means to be a “Professional Engineer”. Emphasis is placed on project and contract management and the applicable law. Skills are developed in finding online resources of law, legal, and practice advice relevant to the practice of engineering and the construction industry.

CIV-ENGR 466 Green Building and Sustainable Infrastructure Credits: 3
This class will discuss various green rating systems for buildings and infrastructure. Upon completion of this course students will be prepared for the LEED Green Associate Exam. The course will also discuss infrastructure project sustainability from a life cycle perspective. A semester project will involve stormwater management using "green" techniques and methods to mitigate the urban heat island. Upon completion of the course, students will better understand what sustainability means and how it applies in the context of our built environment and have a good idea of how technology will impact our sustainable future.

Prerequisites: Junior standing.

CIV-ENGR 467 Introduction to Construction Management Credits: 3
Structure of the construction industry; construction drawings and specifications; estimating and bidding; construction contracts, bonds and insurance; planning and scheduling of construction operations; project management; computer techniques.

Prerequisites: MATH 345.

CIV-ENGR 468 Construction Planning and Scheduling Credits: 3
This course is intended to provide an in-depth examination of the construction planning and scheduling process, as it relates to civil engineering projects. Topics will include planning and scheduling of construction operations by the critical path method, Network diagramming, scheduling computations, and time-cost trade-offs. Manpower and equipment leveling. Computer and noncomputer techniques.

Prerequisites: CIV-ENGR 467.

CIV-ENGR 469 Construction Methods and Equipment Credits: 3
Introduction to methods used to plan, construct, and manage heavy civil projects. Topics will include development, project control, equipment productivity, earthmoving fundamentals, formwork design, and other issues in heavy civil projects.

Prerequisite: CIV-ENGR 467.

CIV-ENGR 470 Corrosion Engineering Credits: 3
This course will cover the physical interaction of metallic materials with their environments, called corrosion. Corrosion is an electrochemical process and the thermodynamics and kinetics of corrosion processes will be discussed. Students will be expected to identify different forms of corrosion and be able to select appropriate materials for their working environment to prevent corrosion related problems. Second half of the class will concentrate on corrosion of metals in concrete and prevention methods.

Prerequisites: CHEM 211, CHEM 211L, CIV-ENGR 378WI.

CIV-ENGR 471 Advanced Portland Cement Concrete Credits: 3
This course will cover topics such as cement chemistry, concrete proportioning, aggregates, mineral and chemical admixtures, fresh and hardened properties of concrete, and durability of concrete. Design and proportioning of concrete mixtures for desired fresh and hardened properties will be emphasized. Specialty concrete types such as high strength/high performance concrete, lightweight concrete, pervious concrete, high volume fly ash concrete, and fiber reinforced concrete will also be covered.

Prerequisites: CHEM 211, CHEM 211L, CIV-ENGR 378WI.

CIV-ENGR 473 Durability of Civil Engineering Materials Credits: 3
This course will explore the identification, causes of, and remediation of material-related durability deterioration in civil engineering projects. The primary focus will be on reinforced concrete, plain concrete, and soil for a variety of applications. Course content will be delivered primarily through laboratory activities and handouts. Lab activities will use advanced analysis techniques and help the students identify and measure deterioration mechanisms. Various non-destructive evaluation techniques will be discussed. Students have hands on experiences with samples production, data collection, and data analysis for all of the lab activities.

Prerequisites: CIV-ENGR 335, CIV-ENGR 378WI.

CIV-ENGR 475 Seismic Design of Structures Credits: 3
Introduction to basic analysis and design principles for the seismic design of buildings (concrete, steel, wood). General seismic principles, codes and loads, static lateral force procedure, dynamic lateral force procedure, topics in rigidities of buildings.

Prerequisites: CIV-ENGR 323 (or CIV-ENGR 422WI), MEC-ENGR 285.

CIV-ENGR 481 Highway and Traffic Engineering Credits: 3
Principles of highway engineering and traffic analysis, road/vehicle performance, geometric alignment of highways, traffic analysis and queuing theory, signal design, statistical analysis of traffic data and highway drainage.

Prerequisites: MEC-ENGR 285.
CIV-ENGR 484 Pavement Materials Design, Maintenance, and Rehabilitation Credits: 3
Traffic loading and volume, stress and deflection, characterization of pavement materials, design of flexible and rigid pavements, design of overlays, evaluation of pavement performance, maintenance techniques, and rehabilitation options.
Prerequisites:  CIV-ENGR 335, CIV-ENGR 378WI.

CIV-ENGR 487 Applied Finite Element Analysis Credits: 3
The study of advanced simulation techniques for the solution to engineering problems. The use of Finite Element Method toward solving mechanical, structural, vibration and potential flow problems will be explored. Current commercial simulation tools will be used extensively.
Prerequisites: MEC-ENGR 272 and MEC-ENGR 130.

CIV-ENGR 491 Internship Credits: 6
For International students who must register to cover off-campus employment which is approved as related to their degree by their departmental advisor and ISAO.

CIV-ENGR 497 Engineering Hydrology Credits: 3
Fundamental concepts of hydrology in engineering; computation principles of runoff from rainfall; measurement of hydrologic quantities; quantitative and statistical estimation of design stream-flow magnitude and frequency; principles of unsteady routing of hydrographs.
Prerequisites: CIV-ENGR 319, CIV-ENGR 351.

CIV-ENGR 5500 Problems Credits: 1-6
Supervised investigation in civil engineering to be presented in the form of a report.
Prerequisites: Graduate standing.

CIV-ENGR 5501 Advanced Topics in Civil Engineering Credits: 1-3
Current technical developments in civil engineering.

CIV-ENGR 5501AE Advanced Topics in Civil Engineering Credits: 1-3

CIV-ENGR 5501AS Advanced Topics In Civil Engineering Credits: 1-3

CIV-ENGR 5501CP Advanced Topics in Civil Engineering Credits: 1-3
Advanced Topics in Civil Engineering

CIV-ENGR 5501DM Advanced Topics in Civil Engineering - Capital Project Delivery Methods Credits: 1-3
Provide a body of knowledge that acquaints students with the capital project delivery methods in both public and private business sectors of the U.S design – construction industry. Project delivery means how a capital project comprising both design and construction is planned, procured, contracted and implemented by an owner to achieve desired objectives. Delivery methods include traditional design – bid- build, design – build, design-build plus added services such as operations and maintenance, CM @ Risk and other approaches. Roles and responsibilities of owners, owner consultants, and design and construction firms are presented and discussed. Owner procurement approaches, project risk allocation, and how design and construction firms compete for projects will be examined. Students will contribute to and evaluate owner procurement documents such as requests for qualifications (RFQ) and requests for proposal (RFP).

CIV-ENGR 5501DS Advanced Topics in Civil Engineering Credits: 1-3

CIV-ENGR 5501ES Advanced Topics in Civil Engineering Credits: 1-3
Advanced Topics in Civil Engineering.
Prerequisites: CIV-ENGR 335.

CIV-ENGR 5501FM Advanced Topics in Civil Engineering Credits: 1-3
Advanced Topics in Civil Engineering

CIV-ENGR 5501G Advanced Topics In Civil Engineering Credits: 1-3

CIV-ENGR 5501GB Advanced Topics in Civil Engineering Credits: 1-3

CIV-ENGR 5501GS Advanced Topics in Civil Engineering Credits: 1-3

CIV-ENGR 5501HA Advanced Topics in Civil Engineering Credits: 3
Practical implementation of hydrologic and hydraulic system design in accordance with published design criteria and using methods and numerical modeling accepted by local, state, and national government agencies.
Prerequisites: CIV-ENGR 357.

CIV-ENGR 5501IR Adv Topics in Civil Engineering Credits: 1-3
Adv Topics in Civil Engineering
CIV-ENGR 5501J Advanced Topics In Civil Engineering Credits: 1-3
This class introduces students to the financial concepts faced by engineers in the businesses in which they work and for the projects to which they are assigned. Throughout the course students are reminded of the impact of two key variables – money and time – on their work. While not attempting to turn good engineers into mediocre accountants, the course includes a strong emphasis on managerial accounting. Students will learn how to read and apply financial statements and how to use these same financial concepts in developing pro formas to evaluate and support major capital investments. The effect of time on the value of money, appropriate discount factors, and the internal rate of return will be explored in the class. Students will learn to combine these financial factors with electronic spreadsheets to evaluate business opportunities and practices. All students will be required to develop a comprehensive financial model to evaluate/justify a real world capital project.

CIV-ENGR 5501L Advanced Topics In Civil Engineering Credits: 1-3

CIV-ENGR 5501M Advanced Topics in Civil Engineering Credits: 1-3
Advanced Topics in Civil Engineering

CIV-ENGR 5501MD Advanced Topics in Civil Engineering Credits: 1-3
Advanced Topics in Civil Engineering

CIV-ENGR 5501MM Advanced Topics in Civil Engineering Credits: 1-3
Advanced Topics in Civil Engineering

CIV-ENGR 5501MX Advanced Topics in Civil Engineering Credits: 1-3
Advanced Topics in Civil Engineering

CIV-ENGR 5501PM Advanced Project Management of Integrated Design and Construction Credits: 3
Provide a body of knowledge that includes the principles, knowledge areas, skills, and tools applicable to successful project management for the performance of integrated design and construction of capital projects, specifically as applicable to the post-award period. This post-award period is the time from the formal Project award by the owner through Project design and construction, testing, commissioning, close-out and completion of the Project warranties.

CIV-ENGR 5501S Advanced Topics In Civil Engineering Credits: 1-3

CIV-ENGR 5501SD Advanced Topics in Civil Engineering Credits: 3
Study of soil behavior under cyclic and dynamic loading conditions. Foundation design for vibratory loadings. Introductory earthquake engineering including dynamic ground response for determination of dynamic soil properties. Evaluation of soil liquefaction potential during earthquakes by both laboratory and in situ filed methods. Design consideration for embankments and earth retaining structures under seismic loading conditions. Construction blasting and vibration effects on underground systems.
Prerequisites: CIV-ENGR 335.

CIV-ENGR 5501SP Advanced Topics In Civil Engineering Credits: 1-3

CIV-ENGR 5501SW Advanced Topics in Civil Engineering Credits: 1-3

CIV-ENGR 5504 Project Management of Integrated Design and Construction Credits: 3
Provide a body of knowledge that includes the principles, knowledge areas, skills, and tools applicable to successful project management for the performance of integrated design and construction of capital projects, specifically as applicable to the post-award period. This post-award period is the time from the formal Project award by the owner through Project design and construction, testing, commissioning, close-out and completion of the Project warranties.

CIV-ENGR 5505 Capital Project Delivery Methods Credits: 3
Provide a body of knowledge that acquaints students with the capital project delivery methods in both public and private business sectors of the U.S design – construction industry. Project delivery means how a capital project comprising both design and construction is planned, procured, contracted and implemented by an owner to achieve desired objectives. Delivery methods include traditional design – bid- build, design – build, design-build plus added services such as operations and maintenance, CM @ Risk and other approaches. Roles and responsibilities of owners, owner consultants, and design and construction firms are presented and discussed. Owner procurement approaches, project risk.

CIV-ENGR 5515 Engineering Leadership & Ethics Credits: 3
Analysis of leadership, including 360-degree assessment of students’ leadership. Discussion of leadership cases and application to engineering careers. Frequent analysis of engineering ethics cases using the NSPE Code.
Prerequisites: Graduate status.

Cross Listings: CIV-ENGR 415.

CIV-ENGR 5521 Matrix Methods of Structural Analysis Credits: 3
An introduction to the fundamentals of stiffness and flexibility methods for analysis of truss and frame structures. Application of the computer programs to three dimensional structures.
Prerequisites: CIV-ENGR 321.

Cross Listings: CIV-ENGR 421.
CIV-ENGR 5523 Advanced Structural Steel Design Credits: 3
Design of steel building structures. Topics include composite deck and beam design, stability design, plastic design, plate girder design, simple and eccentric shear connections, and partial and fully restrained moment resistant connections.
Prerequisites: CIV-ENGR 323.

CIV-ENGR 5526 Prestressed Concrete Credits: 3
Design and behavior of prestressed concrete structures; material and system or pretensioned and post tensioned systems; prestress losses; flexure, shear, bond, deflections and partial prestress in determinate structures; indeterminate beams-introduction.
Prerequisites: CIV-ENGR 422WI.

CIV-ENGR 5527 Advanced Reinforced Concrete Design Credits: 3
Advanced Topics in the design of footings, retaining walls two way floor slabs, torsion and continuous structures, shear friction, strut and tie design, precast design.
Prerequisites: CIV-ENGR 422WI.

Cross Listings: CIV-ENGR 427.

CIV-ENGR 5529 Advanced Design of Structures for Blast and Fire Credits: 3
General overview of Blast Design; risk assessment and design criteria; simplified Blast Effects Analysis; ground shock, material response; antiterrorism design considerations; weapons effects and mitigation; internal explosions; progressive collapse analysis; and introduction to Fire Design.

CIV-ENGR 5531 Fund of Geomaterial Characterization Credits: 3
A geomaterial is any construction material comprised primarily of soil. This course overviews state-of-the-art instrumental techniques for analysis of the physio-chemical properties of soils, aggregates, hydraulic concrete, and asphaltic concrete. Evaluation techniques will be applied to determining beneficial reuse opportunities for industrial by-product materials from the Kansas City region. Prerequisites are CE 335 Soil Mechanics and CE378 Civil Engineering Materials, or equivalent. 3 credit hours.
Prerequisites: CIV-ENGR 335, CIV-ENGR 378WI.

CIV-ENGR 5532 Foundation Engineering Credits: 3
Design of basic foundation structures, footings, retaining walls, pile foundations, dams.
Prerequisites: CIV-ENGR 335.
Cross Listings: CIV-ENGR 432.

CIV-ENGR 5536 Advanced Soil Mechanics Credits: 3
Theoretical soil mechanics as applied to solution of specific engineering problems.
Prerequisites: CIV-ENGR 335.
Cross Listings: CIV-ENGR 436.

CIV-ENGR 5542 Hydraulic Structures Credits: 3
A review of the history and hydraulic design procedures for a variety of hydraulic structures including spillways, water measurement structures, canal structures and energy dissipation structures.
Prerequisites: CIV-ENGR 452 (or CIV-ENGR 5552).

CIV-ENGR 5544 Unit Processes in Environmental Engineering Credits: 3
Typical chemical and physical relationships are applied to unit processes of water and wastewater. Troubleshooting for operation problems is emphasized.
Prerequisites: CIV-ENGR 342.

CIV-ENGR 5545 Environmental Engineering Microbiology Credits: 3
Theory and application of fundamental principles of microbiology, toxicology, ecology, and aquatic biology of the microorganisms of importance to environmental engineers.
Prerequisites: CE342.

CIV-ENGR 5546 Limnology Credits: 3
A survey of the physical, biological, and chemical issues important in surface fresh waters. Includes carbonate chemistry, algal assay and Thermocline analysis.
Prerequisites: CHEM 211, MATH 345.
This course introduces students to the financial concepts faced by engineers in the businesses in which they work and for the projects to which they are assigned. Throughout the course students are reminded of the impact of two key variables – money and time – on their work. While not attempting to turn good engineers into mediocre accountants, the course includes a strong emphasis on managerial accounting. Students will learn how to read and apply financial statements and how to use these same financial concepts in developing pro formas to evaluate and support major capital investments. The effect of time on the value of money, appropriate discount factors, and the internal rate of return will be explored in the class. In addition, this course includes a high level overview of the most important statutes that have been enacted to protect the environment. The course covers regulation of hazardous waste, the Clean Air and Clean Water Acts, the Resource Conservation and Recovery Act, the All Appropriate Inquiry Rule and the law addressing sites contaminated with hazardous substances and the technology options employed to remediate those sites. In addition, the course provides coverage of environmental audits and emergency planning for extremely hazardous substances, the regulation of underground storage tanks, safe drinking water and the National Environmental Policy Act among other statutes.

Prerequisites: ANCHOR 201/CIV-ENGR 211, MEC-ENGR 285.

Cross Listings: CIV-ENGR 449.

This course introduces concepts of alluvial channel behavior, evolution and change due to natural and man-induced modifications to streams and watersheds. Numerous case studies of river behavior are studied from the perspective of hydraulics, geomorphology and sediment transport.

Prerequisites: CIV-ENGR 351.

This is a first course in the fundamentals of open channel (free surface) water flow. Over ninety-nine percent of all the water that is moved on the planet’s surface is by free surface flow. Study of free surface flow is essential to the study of storm water drainage systems, flood control, water and wastewater treatment and the study of the form and processes of river evolution. This class provides the fundamental physical principles of free surface flow as a prelude to a significant number of other topics that pertain to engineering and geomorphic analysis.

Prerequisites: CIV-ENGR 357.

This course introduced concepts of alluvial channel behavior, evolution and change due to natural and man-induced modifications to streams and watersheds. Numerous case studies of river behavior are studied from the perspective of hydraulics, geomorphology and sediment transport.

Prerequisites: CIV-ENGR 452 (or CIV-ENGR 5552).

Cross Listings: CIV-ENGR 454.

This course is an in-depth, follow on course for senior undergraduate students interested in the hydrological sciences and for graduate students specializing in water resources. Specifically this course will focus on the engineering procedures and techniques specified by municipalities to design and maintain efficient, safe, storm drainage systems. This course also focuses on the unique issues associated with estimating and designing for rainfall/runoff in urban metropolitan areas, including channel and reservoir routing of floods through stream channels, retention structures, culverts, and storm sewers.

Prerequisites: CIV-ENGR 357.

This course introduces professional, ethical, and legal concepts of the professional practice of engineering, and the role of the consulting engineer, specifically in the A/E/C industry during the design, procurement, and construction processes. A conceptual framework is developed for understanding the industry standard agreements (AIA, EJCDC, ConCensus) and the various participants roles and duties in project execution. The engineer’s “professional standard of care” is examined and revisited throughout the semester, specifically what it means to be a “Professional Engineer”. Emphasis is placed on project and contract management and the applicable law. Skills are developed in finding online resources of law, legal, and practice advice relevant to the practice of engineering and the construction industry

Prerequisites: CIV-ENGR 357.

This class introduces students to the financial concepts faced by engineers in the businesses in which they work and for the projects to which they are assigned. Throughout the course students are reminded of the impact of two key variables – money and time – on their work. While not attempting to turn good engineers into mediocre accountants, the course includes a strong emphasis on managerial accounting. Students will learn how to read and apply financial statements and how to use these same financial concepts in developing pro formas to evaluate and support major capital investments. The effect of time on the value of money, appropriate discount factors, and the internal rate of return will be explored in the class. Students will learn to combine these financial factors with electronic spreadsheets to evaluate business opportunities and practices. All students will be required to develop a comprehensive financial model to evaluate/justify a real world capital project.
CIV-ENGR 5566 Green Building and Sustainable Infrastructure Credits: 3
This course provides a broad overview of what sustainability means to construction and our built environment. Specific green infrastructure rating systems of LEED and Envision will be discussed in detail to quantify the "greenness" of construction of buildings residential subdivisions, highways, roads, and airports. Upon completion of this course students will have a substantial background and understand the aspects needed for the LEED Green Associates and Envision ISI exams. Two major additional aspects of green building important to sustainable infrastructure include stormwater management using "green" techniques and methods to mitigate the urban heat island. The course will also discuss infrastructure project sustainability from a life cycle cost perspective and determining the life cycle inventory of various materials. Upon completion of the course, students will better understand what sustainability means and how it applies in the context of our built environment and have a good idea of how technology will impact our sustainable future.

Cross Listings: CIV-ENGR 466.

CIV-ENGR 5567 Introduction to Construction Management Credits: 3
This course will introduce the students to basic construction management related topics including structure of the construction industry, construction drawings and specifications, estimating and bidding, construction contracts, bonds and insurance, planning and scheduling of construction operations, project management, computer techniques.

Prerequisites: MEC-ENGR 272 (or MATH 345).

CIV-ENGR 5568 Construction Planning and Scheduling Credits: 3
This course is intended to provide an in-depth examination of the construction planning and scheduling process, as it relates to civil engineering projects. Topics will include planning and scheduling of construction operations by the critical path method, Network diagramming, scheduling computations, and time-cost trade-offs. Manpower and equipment leveling. Computer and noncomputer techniques.

Prerequisites: CIV-ENGR 467.

CIV-ENGR 5569 Construction Methods and Equipment Credits: 3
Introduction to methods used to plan, construct and manage heavy civil projects. Topics will include development, project control, equipment productivity, earthmoving fundamentals, formwork design, and other issues in heavy civil projects.

Prerequisites: CIV-ENGR 467.

CIV-ENGR 5570 Corrosion Engineering Credits: 3
This course will cover the physical interaction of metallic materials with their environments, called corrosion. Corrosion is an electrochemical process and the thermodynamics and kinetics of corrosion processes will be discussed. Students will be expected to identify different forms of corrosion and be able to select appropriate materials for their working environment to prevent corrosion related problems. Second half of the class will concentrate on corrosion of metals in concrete and prevention methods.

Prerequisites: CHEM 211, CHEM 211L, CIV-ENGR 378WI.

CIV-ENGR 5571 Advanced Portland Cement Concrete Credits: 3
This course will cover topics such as cement chemistry, concrete proportioning, aggregates, mineral and chemical admixtures, fresh and hardened properties of concrete, and durability of concrete. Design and proportioning of concrete mixtures for desired fresh and hardened properties will be emphasized. Specialty concrete types such as high strength/high performance concrete, lightweight concrete, pervious concrete, high volume fly ash concrete, and fiber reinforced concrete will also be covered.

Prerequisites: CHEM 211, CHEM 211L, CIV-ENGR 378WI.

CIV-ENGR 5573 Durability of Civil Engineering Materials Credits: 3
This course will explore the identification, causes of, and remediation of material-related durability deterioration in civil engineering projects. The primary focus will be on reinforced concrete, plain concrete, and soil for a variety of applications. Course content will be delivered primarily through laboratory activities and handouts. Lab activities will use advanced analysis techniques and help the students identify and measure deterioration mechanisms. Various non-destructive evaluation techniques will be discussed. Students have hands on experiences with samples production, data collection, and data analysis for all of the lab activities.

Prerequisites: CIV-ENGR 335, CIV-ENGR 378WI.

Cross Listings: CIV-ENGR 473.

CIV-ENGR 5575 Seismic Design of Structures Credits: 3
Introduction to basic analysis and design principles for the seismic design of buildings (concrete, steel, wood). General seismic principles, codes and loads, static lateral force procedure, dynamic lateral force procedure, topics in rigidities of buildings.

Prerequisites: CIV-ENGR 323 (or CIV-ENGR 422WI), MEC-ENGR 285.

CIV-ENGR 5582 Advanced Traffic Engineering Credits: 3
This course covers the review of traffic flow characteristics, the field survey practices and studies, traffic signal designs, freeway operation, and the introduction to Intelligent Traffic Systems (ITS).

Prerequisites: CIV-ENGR 319, CIV-ENGR 481.
CIV-ENGR 5584 Pavement Materials, Design, Maintenance, and Rehabilitation Credits: 3
This course will explore the identification, causes of, and remediation of material-related durability deterioration in civil engineering projects. The primary focus will be on reinforced concrete, plain concrete, and soil for a variety of applications. Course content will be delivered primarily through laboratory activities and handouts. Lab activities will use advanced analysis techniques and help the students identify and measure deterioration mechanisms. Various non-destructive evaluation techniques will be discussed. Students have hands on experiences with samples production, data collection, and data analysis for all of the lab activities.
**Prerequisites:** CIV-ENGR 378WI.

CIV-ENGR 5585 Principles of Railroad Engineering Credits: 3
The engineering analysis and design of railroad systems including the study of the dynamics of track/trains; wheel/rail interaction related to acceleration and braking; horizontal and vertical geometric design of railroads and rail-bed design, rail structures; freight and passenger operations; and, rail-highway interaction and safety.
**Prerequisites:** CIV-ENGR 481.

CIV-ENGR 5599 Thesis Research Credits: 1-6
Independent investigation in the field of civil engineering to be presented in the form of a thesis.

CIV-ENGR 5601AE Advanced Topics In Civil Engineering Credits: 1-3
CIV-ENGR 5601AS Doctoral Topics Civil Engineering Credits: 1-3
CIV-ENGR 5601B Advanced Topics In Civil Engineering Credits: 1-3
CIV-ENGR 5601CH Advanced Topics In Civil Engineering Credits: 1-3
CIV-ENGR 5601FM Doctoral Topics in Civil Engineering Credits: 1-3
Current technical developments in civil engineering.
CIV-ENGR 5601G Advanced Topics In Civil Engineering Credits: 1-3
CIV-ENGR 5601RE Advanced Topics In Civil Engineering Credits: 1-3
Advanced Topics In Civil Engineering
CIV-ENGR 5601SD Advanced Topics In Civil Engineering Credits: 1-3
CIV-ENGR 5601X Advanced Topics In Civil Engineering Credits: 1-3
CIV-ENGR 5602 Directed Reading in Civil Engineering Credits: 1-3
Faculty supervised readings course.
**Prerequisites:** Graduate standing.

CIV-ENGR 5607 Numerical Methods in Engineering Credits: 3
Classification and numerical solution of engineering problems—ordinary and partial differential equations, algebraic equations. Includes initial, boundary, eigen- and characteristic-value problems.
**Prerequisites:** MATH 345.

CIV-ENGR 5622 Theory of Elasticity Credits: 3
**Cross Listings:** MEC-ENGR 5622.

CIV-ENGR 5623 Theory of Plates and Shells Credits: 3
Bending of plates with various loading and boundary conditions. Deformations, stresses in thin shells.
**Prerequisites:** CIV-ENGR 5622.

**Cross Listings:** MEC-ENGR 5623.

CIV-ENGR 5624 Theory of Elastic Stability Credits: 3
Buckling of columns, beams, rings, curved bars, thin plates, shells.
**Prerequisites:** CIV-ENGR 5622.

**Cross Listings:** MEC-ENGR 5624.

CIV-ENGR 5625 Advanced Prestressed Concrete Credits: 3
Design and behavior of prestressed concrete structures; material and system of pretensioned and post tensioned systems; prestress losses; flexure, shear, bond, deflections and partial prestress in determinate structures; indeterminate beams-introduction.
**Prerequisites:** CIV-ENGR 422WI.
CIV-ENGR 5629 Adv. Design of Structures for Blast and Fire Credits: 3
General overview of Blast Design; risk assessment and design criteria; simplified Blast Effects Analysis; ground shock, material response; antiterrorism design considerations; weapons effects and mitigation; internal explosions; progressive collapse analysis; and introduction to Fire Design.

CIV-ENGR 5645 Water Quality Modeling Credits: 3
Derivation and application of models for describing oxygen budget, nutrient exchange, and biological productivity in streams, lakes and estuaries.
Prerequisites: CIV-ENGR 342.

CIV-ENGR 5646 Physiochemical Treatment Processes Credits: 3
Fundamental principles, analysis and modeling of physical and chemical processes for water and wastewater treatment.
Prerequisites: CIV-ENGR 342.

CIV-ENGR 5647 Biochemical Treatment Processes Credits: 3
Biochemical principles, kinetic models and energy considerations in the design of biological wastewater treatment processes.
Prerequisites: CIV-ENGR 342.

CIV-ENGR 5648 Environmental Engineering Practicum Credits: 3
Numerical water quality modeling of actual site data for wasteload allocation.
Prerequisites: CIV-ENGR 5645.

CIV-ENGR 5649 Design of Water and Wastewater Treatment Facilities Credits: 3
Development of design criteria and their application to the design of water and wastewater treatment facilities.
Prerequisites: CIV-ENGR 5646 or CIV-ENGR 5647.

CIV-ENGR 5651 Fundamentals of Fluid Mechanics Credits: 3
Fundamentals of fluid motion, lecture and laboratory. Instrumentation, technique and analysis for experimental studies in fluid mechanics.

CIV-ENGR 5655 Sediment Transport Credits: 3
Prerequisites: CIV-ENGR 452 (or CIV-ENGR 5552).

CIV-ENGR 5656 Advanced Hydraulic Engineering Credits: 3
Rapidly varied flow and design of transition structures. Hydraulic design of spillways, reservoirs and related structures.

CIV-ENGR 5675 Advanced Seismic Design of Structures Credits: 3
Introduction to basic analysis and design principles for the seismic design of buildings (concrete, steel, wood). General seismic principles, codes and loads, static lateral force procedure, dynamic lateral force procedure, topics in rigidities of buildings.
Prerequisites: CIV-ENGR 323 (or CIV-ENGR 422WI), MEC-ENGR 285.

CIV-ENGR 5679 Dynamics of Structures Credits: 3
Study of the dynamic behavior of structures. Analysis of equivalent lumped parameter systems for the design of structures in a dynamic environment.
Prerequisites: CIV-ENGR 276 (or CIV-ENGR 421), MEC-ENGR 484 (or MATH 345, MEC-ENGR 285).

Cross Listings: MEC-ENGR 5679.

CIV-ENGR 5681 Traffic Flow Theory Credits: 3
This course covers the review of macroscopic and microscopic traffic flow characteristics, the traffic flow models, and the traffic simulation applications.
Prerequisites: CIV-ENGR 319, CIV-ENGR 481.

CIV-ENGR 5682 Transportation Network Modeling Credits: 3
This course is about modeling, solving, and understanding network flow problems, especially in the transportation discipline. This course covers equilibrium traffic assignment, network design, fleet assignment, fleet routing, and crew scheduling.
Prerequisites: CIV-ENGR 319, CIV-ENGR 481.

CIV-ENGR 5699 Research and Dissertation Credits: 1-9
Doctoral dissertation research.

Mechanical Engineering Courses
MEC-ENGR 130 Engineering Graphics Credits: 3
Introduction to Engineering Graphics with the use of the Computer Aided Design tools AutoCAD and SolidWorks. Introduction to 2D design with AutoCAD includes: basic features, layer control, geometric constructions, orthographic projections, dimensioning and notes, tolerancing, section views, and working drawings. Introduction to 3D design with SolidWorks includes: part modeling, revolved features, sweeps, lofts, assembly modeling and engineering drawings. No previous 2D or 3D CAD experience is necessary to take this class.
MEC-ENGR 130L Engineering Graphics Lab Credits: 0
Supplemental lab instruction and assistance for MEC-ENGR 130.

MEC-ENGR 131 Engineering Graphics-3D design Credit: 1
Introduction to Engineering Graphics using the 3D Computer Aided Design tool SolidWorks. Introduction to 3D design with SolidWorks includes: part modeling, revolved features, sweeps, lofts, assembly modeling, and engineering drawings. Some previous 2D AutoCAD experience is required to take this class. NOTE: This class starts halfway through the semester by joining in with MEC-ENGR 130 when they finish AutoCAD and begin SolidWorks.
Prerequisites: 2D AutoCAD experience.

MEC-ENGR 219 Computer Programming for Engineers Credits: 3
Analysis and synthesis of structured computer algorithms for solving engineering problems using high level programming tools such as Excel, Matlab, Fortran and/or C++. 
Prerequisites: MATH 266.

MEC-ENGR 220 Electric Circuits Credits: 3
Introduction to electric circuits for civil and mechanical engineering students.
Prerequisites: MEC-ENGR 219, PHYSICS 250.
Co-requisites: MEC-ENGR 272.

MEC-ENGR 270 Engineering Analysis I Credits: 3
This is an applied course with emphasis on physics and engineering applications. Topics include engineering applications using conics, parametric equations, polar coordinates, vectors, solid analytic geometry, vector valued functions, multi-variable functions, partial derivatives (including applications), multiple integration, vector calculus including Green's Theorem, Curl and Divergence, line and surface integrals and Stoke's Theorem.
Prerequisites: MATH 268.

MEC-ENGR 272 Engineering Analysis Credits: 3
An applied course using differential equations in solutions to engineering problems. Topics include applications in first-order differential equations, linear higher-order equations, Laplace transform, Series solutions of linear ODEs (Taylor, Power, and Fourier), Numerical solutions, introduction to systems of differential equations.
Prerequisites: MATH 268.

MEC-ENGR 285 Engineering Dynamics Credits: 3
Fundamentals of engineering dynamics, including kinematics and kinetics of particles and rigid bodies. Analysis based on forces and accelerations as well as energy and momentum methods.
Prerequisites: CIV-ENGR 275.

MEC-ENGR 299 Engineering Thermodynamics Credits: 3
Fluid properties, work and heat, first law, second law, entropy, applications to vapor and ideal gas processes.
Prerequisites: MATH 268, PHYSICS 250.

MEC-ENGR 301 Fundamental Topics in Mechanical Engineering Credits: 3
Current and new technical developments in mechanical engineering.

MEC-ENGR 306 Computer-Aided Engineering Credits: 3
Prerequisites: CIV-ENGR 219, CIV-ENGR 319, MEC-ENGR 272.

MEC-ENGR 324 Engineering Materials Credits: 3
The nature of the structure of engineering materials. The relationship of material structure to the physical properties. Mechanical behavior of engineering materials.
Prerequisites: CHEM 211, CHEM 211L, CIV-ENGR 276.

MEC-ENGR 351 Fluid Mechanics Credits: 3
Concepts of the statics and dynamics of fluids, with emphasis on principles of continuity, momentum and energy. Boundary layers, dimensional analysis and drag are covered briefly. Thorough treatment of pipe flow.
Prerequisites: MATH 250 or MEC-ENGR 270, and MEC-ENGR 272.

MEC-ENGR 352 Mechanical Instruments Lab Credits: 2
Students will investigate random and systematic errors, and their effects on measurement uncertainty. Students will be introduced to various instrumentation equipment used in measuring displacement, velocity, acceleration, force, strain, fluid pressure, fluid velocity, fluid flow rate, and temperature.
Prerequisites: E&C-ENGR 276, E&C-ENGR 277, CIV-ENGR 276, MEC-ENGR 351, MEC-ENGR 299.
MEC-ENGR 353 Heat Transfer and Fluid Mechanics Lab Credits: 2
Project-based course associated with MEC-ENGR 399 and MEC-ENGR 351. The course emphasis is on experiments related to thermodynamics, heat transfer, and fluid mechanics. Proper experimental methods, data and uncertainty analysis related to thermal and fluids measurements are discussed.
Prerequisites: MEC-ENGR 299 and MEC-ENGR 351.

MEC-ENGR 356 Mechanical Component Design Credits: 3
Introduction to mechanical engineering design and its impact on human history, principles of design with ductile and brittle materials for static and dynamic loading, classical and reliability-based factors of safety, fracture mechanics in design, application to the design of selected machine components.
Prerequisites: CIV-ENGR 276.

MEC-ENGR 360 Thermal System Design Credits: 3
Gas and vapor mixtures, cycles, availability, imperfect gases, thermodynamic relations, combustion, chemical equilibrium, power systems and design projects. Effects of design choices on the earth and living systems.
Prerequisites: MEC-ENGR 299.

MEC-ENGR 380 Manufacturing Methods Credits: 3
Introduction to manufacturing processes with emphasis on those aspects most relevant to methods, problems in force analysis, and practicum and experimentation in machine tool applications.
Prerequisites: MEC-ENGR 324.

MEC-ENGR 385 System Dynamics Credits: 3
Kinematics of mechanical systems. Introduction to the modeling and analysis of dynamic mechanical systems. Computer analysis.
Prerequisites: MEC-ENGR 272, MEC-ENGR 285.

MEC-ENGR 390 Engineering Coop/Internship Credits: 0
Students may participate in structured Engineering Coop/Internship under the supervision of employer. They must carry out significant professional responsibilities and whatever additional assignments are determined by the employer.
Prerequisites: CIV-ENGR 211, MEC-ENGR 285.

MEC-ENGR 399 Heat and Mass Transfer Credits: 3
Prerequisites: MATH 250 or MEC-ENGR 270; and MEC-ENGR 299, MEC-ENGR 351.

MEC-ENGR 399L Heat and Mass Transfer Lab Credit: 1
Project-based course associated with MECH-ENGR 399. Course emphasis is on experiments related to thermodynamics, heat transfer and fluid mechanics. Proper experimental methods, data and uncertainty analysis related to thermal and fluid measurements are discussed.
Co-requisites: MEC-ENGR 399.

MEC-ENGR 400 Problems Credits: 1-6
Special design, experimental and analytical problems in mechanical engineering.

MEC-ENGR 401AD Topics in Mechanical Engineering- Advance Dynamics and Modeling Credits: 3
Fundamental principles of advance rigid body dynamics with applications. Special mathematical techniques including Lagrangian and Hamiltonian methods.

MEC-ENGR 401CD Topics in Mechanical Engineering -- Applied CFD Credits: 3
The fundamentals of computational fluid mechanics. Introduction to the governing equations and boundary conditions of viscous fluid flows, turbulence and its modelling, and how to solve a fluid flow problem using commercially available CFD software.
Prerequisites: MEC-ENGR 399.

MEC-ENGR 401ID Topics in Mechanical Engineering Credits: 3
Kinematics and dynamics of rigid bodies in space. General theory of rotating coordinate frames, Eulers angles, Eulers equations of motion, angular momentum, work-energy principles.
Prerequisites: MEC-ENGR 285.

MEC-ENGR 401MB Topics in Mechanical Engineering Credits: 3
The purpose of this course is to provide an opportunity for students to gain a hands-on, in-depth understanding of the experimental measurement and analysis techniques used to quantify the biomechanics of human motion.
Prerequisites: MEC-ENGR 411

MEC-ENGR 401MS Topics in Mechanical Engineering Credits: 3
The incorporation of material selection in the design process will be considered.
Prerequisites: MEC-ENGR 324.
MEC-ENGR 401R Topics In Mechanical Engineering Credits: 3
Introduction to and analysis of the thermodynamic cycles and equipment used in Industrial Refrigeration. Applications of Industrial Refrigeration are also discussed.
Prerequisites: MEC-ENGR 299.

MEC-ENGR 401T Topics in Mechanical Engineering Credits: 3
This course covers the application of Newton’s laws and thermodynamics to analysis of fluid flow in turbomachinery.
Prerequisites: MEC-ENGR 399.

MEC-ENGR 409 Fundamentals of Engineering Review Credit: 1
This course consists of a series of lectures given by different professors and is intended as a review class for all the subjects included in the Fundamentals of Engineering exam. Classes specifically focus on the review of equations and formulas included in the reference handbook published by NCEES.

MEC-ENGR 411 Introduction to Biomechanics Credits: 3
This course is to provide students with an introduction to the engineering principles of biomechanics.
Prerequisites: All junior-level coursework must be completed before taking this course.

MEC-ENGR 412 Biodynamics Credits: 3
Introduction to musculoskeletal biomechanics including: computational biomechanics, movement simulation, motor control and musculoskeletal tissues.
Prerequisites: MEC-ENGR 411.

MEC-ENGR 413 Experimental Biomechanics of Human Motion Credits: 3
The purpose of this course is to provide an opportunity for students to gain a hands-on, in-depth understanding of the experimental measurement and analysis techniques used to quantify the biomechanics of human motion.
Prerequisites: MEC-ENGR 411.

MEC-ENGR 414 Material Science for Advanced Applications Credits: 3
Study of the physical and mechanical metallurgy of alloy systems of interest in engineering applications.
Prerequisites: MEC-ENGR 324.

MEC-ENGR 415 Feedback Control Systems Credits: 3
Introduction to feedback control theory for linear dynamic systems. Topics include root locus analysis, frequency response analysis, and controller design.
Prerequisites: MEC-ENGR 385.

MEC-ENGR 420 Human Powered Vehicle Design Lab Credits: 3
Introduction to the science of human powered vehicles (HPV) providing the background necessary for the design of such vehicles. Students will learn and utilize engineering design practices and apply them toward the creation of an aerodynamic, highly engineered land based HPV.
Prerequisites: MATE111A Machine Shop Safety, Consent of instructor.

MEC-ENGR 424 Non-Metallic Engineering Materials Credits: 3
Structures, properties and applications of ceramics, glasses, cermets, polymers and composite materials.
Prerequisites: MEC-ENGR 324.

MEC-ENGR 425 Failure Analysis Credits: 3
Organize and perform a failure investigation. In addition, the course will cover the general procedures for a failure investigation and various failure mechanisms such as ductile fracture, brittle fracture, fatigue, wear, corrosion and elevated temperature.
Prerequisites: MEC-ENGR 324, MEC-ENGR 380.

MEC-ENGR 426 Introduction to Manufacturing Management Credits: 3
The objective of this course is to expose the student to various manufacturing management tools and techniques. Focus is on both the technical tools used in manufacturing as well as on the management tools needed to implement change in the manufacturing environment. As part of this course, students will research a successful company and present an analysis of manufacturing tools and techniques used.

MEC-ENGR 440 Heating and Air Conditioning Credits: 3
General principles of thermodynamics, heat transfer, and fluid dynamics are used to calculate building loads, size equipment and ducts, and evaluate system performance in maximizing human comfort. Consideration of indoor air quality and human health.
Prerequisites: MEC-ENGR 360, MEC-ENGR 399.

MEC-ENGR 441 Intermediate Fluid Mechanics Credits: 3
Topics in potential and viscous flow theory, and computational fluid dynamics.
Prerequisites: MEC-ENGR 351.
MEC-ENGR 444 Composite Materials Credits: 3
A survey of composite materials used in engineering, emphasizing fiber-reinforced composites as well as laminate and particulate composites.
Prerequisites: MEC-ENGR 324.

MEC-ENGR 447 Contracts and Law For Engineers Credits: 3
This course covers a broad range of substantive legal topics giving the student a grounding in the legal implications of certain situations that they may encounter during their careers. The course includes coverage of basic contract law, environmental regulations and compliance, construction law, antitrust law, intellectual property law, civil procedure, employment law, business entities (corporate law) product liability and criminal law and procedure. The objective of the course is to provide students with a fundamental understanding of the wide range of federal and state laws governing behavior in our complicated and rule of law driven society.

MEC-ENGR 449 Environmental Compliance, Auditing & Permitting Credits: 3
This course provides a high level overview of the most important statutes that have been enacted to protect the environment. The course covers regulation of hazardous waste, the Clean Air and Clean Water Acts, the Resource Conservation and Recovery Act, the All Appropriate Inquiry Rule and the law addressing sites contaminated with hazardous substances and the technology options employed to remediate those sites. In addition, the course provides coverage of environmental audits and emergency planning for extremely hazardous substances, the regulation of underground storage tanks, safe drinking water and the National Environmental Policy Act among other statutes.
Prerequisites: Senior standing.

MEC-ENGR 451 Power Plant Design Credits: 3
Preliminary component and system design. Optimum design of boilers, steam turbines, condensers and cooling towers and their integration into a system to minimize production costs and impact on the environment.
Prerequisites: MEC-ENGR 360, MEC-ENGR 399.

MEC-ENGR 452 Advanced Mechanics of Materials Credits: 3
Shear center; unsymmetric bending; curved beams; beams on elastic foundations; thick-walled cylinders. Energy methods. Torsion of noncircular sections. Theories of failure. Plate theory.
Prerequisites: CIV-ENGR 276.

MEC-ENGR 454 Power Generation Systems Credits: 3
Fundamentals of the power industry in a format suitable for all engineering disciplines. Survey of electric power systems, including fossil and nuclear steam cycles, combustion turbines, combines cycles, and renewable such as solar and wind. Introduction to major machinery components, systems, controls, and an overview of fuels, emissions, and emission control technologies. Prerequisites: MEC-ENGR 299.

MEC-ENGR 455 Digital Control of Mechanical Systems Credits: 3
Introduction to digital control systems. Topics include Z-transforms, sampling, stability analysis, and digital controller design.
Prerequisites: MATH 345, MEC-ENGR 415.

MEC-ENGR 457 Mechatronic System Design Credits: 3
Theory and application of mechatronic systems through course instruction, laboratory activities, and student projects.
Prerequisites: MEC-ENGR 415.

MEC-ENGR 458 Modern Control Systems Credits: 3
Controller design for multiple-input/multiple-output systems; controllability and observability; stochastic control problems; regulators and tracking controllers; observers.
Prerequisites: MEC-ENGR 415.

MEC-ENGR 460 Electromechanical Conversion Credits: 3
This course describes the operation and control of electro-mechanical devices such as motors transformers to mechanical civil engineering students, including an introduction to programmable logic controllers and variable speed drives.
Prerequisites: MEC-ENGR 220, MEC-ENGR 285.

MEC-ENGR 466 Applied Optimization and Decision Modeling Credits: 3
Introduction to mathematical programming techniques and applications. Linear and integer programming, transporation models, multiple objective and goal programming.
Prerequisites: MEC-ENGR 306.

MEC-ENGR 467 Fuel Cells and Renewable Energy Systems Credits: 3
This course will provide an overview of the fundamental phenomena that govern the design and operation of fuel cells. The thermodynamics of fuel cell systems will be explored including operation of ideal fuel cells and the physical and chemical phenomena that lead to losses within the fuel cell. The course will provide the methods and techniques required to analyze the performance of low, medium, and high temperature fuel cells within an overall energy system. The fueling of fuel cells from renewable resources will also be discussed.
Prerequisites: MEC-ENGR 399.
MEC-ENGR 468 Introduction to Nuclear Engineering Credits: 3
This course provides an overview of nuclear engineering for non-nuclear engineers. The course deals primarily with nuclear reactors including topics dealing with nuclear and reactor physics, reactor kinetics and controls and radiation environment. The general reactor types are covered in some detail with other topics dealing with licensing, waste management, quality assurance, balance of plant systems (turbine island), and significant nuclear accidents are also covered. Recent design innovations including small modular reactors and fusion are discussed.

Prerequisites: MEC-ENGR 399.

MEC-ENGR 470 Experimental Design & Analysis Credits: 3
Presentation of concepts and methods of statistical analysis and the design of experiments. Concepts, techniques, interpretation, and use of results are stressed. Focus is on experimental strategy and objectives, and the application of the methods discussed, rather than the mechanics of derivation. Major sections include: a review of hypothesis testing and basic analysis of variance techniques; single factor experiments including 2k and 3k design, confounding, and Taguchi philosophy; nested and split plot designs; analysis of covariance and an introduction to response surface methods.

MEC-ENGR 484 Vibration Analysis Credits: 3
Vibration theory with application to mechanical systems.

Prerequisites: MEC-ENGR 385, MEC-ENGR 306.

MEC-ENGR 486 Applied Finite Element Analysis Credits: 3
The study of advanced simulation techniques for the solution to engineering problems. The use of Finite Element Method toward solving mechanical, structural, vibration and potential flow problems will be explored. The use of current commercial simulation tools will be used extensively.

Prerequisites: MEC-ENGR 306, MEC-ENGR 324, MEC-ENGR 385, MEC-ENGR 399.

MEC-ENGR 491 Internship Credits: 6
For International students who must register to cover off-campus employment which is approved as related to their degree by their departmental advisor and ISAO.

MEC-ENGR 492 Mechanical Design Synthesis I Credits: 3
Introduction to and application of the Engineering Design Process including: product development, needs identification, benchmarking, information gathering, concept generation, creativity methods, concept selection, professional and ethical responsibilities, and computer-aided design and rapid prototyping applications. A comprehensive design project including 3D CAD models and functioning prototypes is required.

Prerequisites: MEC-ENGR 130, MEC-ENGR 131

MEC-ENGR 493 Intermediate Dynamics Credits: 3
Theoretical discussion of kinematics and dynamics of rigid bodies in three-dimensional space. General theory of rotating coordinate frames, Euler's angles, Euler's equations of motion, angular momentum, work-energy principles, and Kane's method.

Prerequisites: MEC-ENGR 285.

MEC-ENGR 495 Vehicle Dynamics Credits: 3
Analysis and prediction of the dynamic behavior of ground vehicles utilizing computer simulation. Mechanics of various suspension systems, tire-roadway interaction, vehicle aerodynamics, vehicle handling and steering characteristics.

Prerequisites: MEC-ENGR 385.

MEC-ENGR 496WI Mechanical Design Synthesis Credits: 3
Modern design theories and methodologies, with emphasis on the initial stages of the design process. Effect of design choices on the earth and living systems. Principles of embodiment design and life-cycle considerations. A comprehensive group design project is required. The course satisfies the Writing Intensive requirement.

Prerequisites: MEC-ENGR 492 or ANCH 309, RooWriter.

MEC-ENGR 499 Intermediate Heat Transfer Credits: 3
Advanced topics in conduction, convection and radiation heat transfer including transient heat transfer, phase change and heat exchangers.

Prerequisites: MEC-ENGR 399, MEC-ENGR 351.

MEC-ENGR 5500 Problems Credits: 1-6
Supervised investigation in mechanical engineering to be presented in the form of a report.

MEC-ENGR 5501 Advanced Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5501AC Advanced Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5501AD Advanced Topics in Mechanical Engineering Credits: 3

Advanced Topics in Mechanical Engineering

MEC-ENGR 5501CD Advanced Topics in Mechanical Engineering Credits: 3
Advanced Topics in Mechanical Engineering
MEC-ENGR 5501E Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501EC Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501EM Advanced Topics in Mechanical Engineering Credits: 3
MEC-ENGR 5501GS Advanced Topics in Mechanical Engineering Credits: 3
MEC-ENGR 5501H Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501HP Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501ID Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501IF Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501L Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501M Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501MB Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501MS Advanced Topics in Mechanical Engineering Credits: 3
MEC-ENGR 5501N Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501OE Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501P Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501PL Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501PL1 Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501PL2 Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501R Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501RE Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501SM Advanced Topics in Mechanical Engineering Credits: 2
This course is for high school science teachers who have attended the ASM International Second Year Teachers Camp and have demonstrated the use of camp material in the classroom.
MEC-ENGR 5501TC Advanced Topics in Mechanical Engineering Credits: 2
This course is for high school science teachers who have attended the ASM International Teachers Camp and have demonstrated the use of camp material in the classroom.
MEC-ENGR 5501TS Advanced Topics In Mechanical Engineering Credits: 1-3
MEC-ENGR 5501VA Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501Z Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5505 Imaging Techniques in Materials Science Credits: 3
Introduction to imaging techniques, including x-rays, neutron beams, electron beams and acoustic energy, to study material properties and structure. **Prerequisites:** MEC-ENGR 324.

MEC-ENGR 5511 Introduction to Biomechanics Credits: 3
This course is to provide students with an introduction to the engineering principles of biomechanics.
MEC-ENGR 5512 Biodynamics Credits: 3
Introduction to musculoskeletal biomechanics including: computational biomechanics, movement simulation, motor control and musculoskeletal tissues. **Prerequisites:** MEC-ENGR 5511.

MEC-ENGR 5513 Experimental Biomechanics of Human Motion Credits: 3
The purpose of this course is to provide an opportunity for students to gain a hands-on, in-depth understanding of the experimental measurement and analysis techniques used to quantify the biomechanics of human motion. **Prerequisites:** MEC-ENGR 5511.

MEC-ENGR 5514 Material Science for Advanced Application Credits: 3
Study of the physical and mechanical metallurgy of alloy systems of interest in engineering applications. **Prerequisites:** MEC-ENGR 324.
MEC-ENGR 5525 Failure Analysis Credits: 3
Organize and perform a failure investigation. In addition, the course will cover the general procedures for a failure investigation and various failure mechanisms such as ductile fracture, brittle fracture, fatigue, wear, corrosion and elevated temperature.

**Prerequisites:** MEC-ENGR 324, MEC-ENGR 380.

**Cross Listings:** MEC-ENGR 425.

MEC-ENGR 5526 Introduction to Manufacturing Management Credits: 3
The objective of this course is to expose the student to various manufacturing management tools and techniques. Focus is on both the technical tools used in manufacturing as well as on the management tools needed to implement change in the manufacturing environment. As part of this course, students will research a successful company and present an analysis of manufacturing tools and techniques used.

**Cross Listings:** MEC-ENGR 426.

MEC-ENGR 5533 Statistical Thermodynamics Credits: 3
Statistical methods of evaluating thermodynamic properties. Elements of quantum mechanics, statistical mechanics and kinetic theory applied to topics of engineering thermodynamics.

**Prerequisites:** MEC-ENGR 360, MEC-ENGR 399.

MEC-ENGR 5542 Introduction to Computational Fluid Dynamics and Heat Transfer Credits: 3
Introduction to the principles and development of the finite-difference approximations to the governing differential equations of viscous and inviscid fluid flow, as well as heat transfer. Introduction to discretization methods and the calculation of flow fields, convection, diffusion and conduction.

**Prerequisites:** MEC-ENGR 399, MEC-ENGR 441.

MEC-ENGR 5543 Industrial Refrigeration Credits: 3
Introduction to and analysis of the thermodynamic cycles and equipment used in Industrial Refrigeration. Applications of Industrial Refrigeration are also discussed.

**Prerequisites:** Mec-Engr 299.

MEC-ENGR 5547 Contracts and Law for Engineers Credits: 3
This course covers a broad range of substantive legal topics giving the student a grounding in the legal implications of certain situations that they may encounter during their careers. The course includes coverage of basic contract law, environmental regulations and compliance, construction law, antitrust law, intellectual property law, civil procedure, employment law, business entities (corporate law) product liability and criminal law and procedure. The objective of the course is to provide students with a fundamental understanding of the wide range of federal and state laws governing behavior in our complicated and rule of law driven society.

**Cross Listings:** MEC-ENGR 447.

MEC-ENGR 5549 Environmental Compliance, Auditing & Permitting Credits: 3
This course provides a high level overview of the most important statutes that have been enacted to protect the environment. The course covers regulation of hazardous waste, the Clean Air and Clean Water Acts, the Resource Conservation and Recovery Act, the All Appropriate Inquiry Rule and the law addressing sites contaminated with hazardous substances and the technology options employed to remediate those sites. In addition, the course provides coverage of environmental audits and emergency planning for extremely hazardous substances, the regulation of underground storage tanks, safe drinking water and the National Environmental Policy Act among other statutes.

**Prerequisites:** ANCHOR 201/CIV-ENGR 211, MEC-ENGR 285.

**Cross Listings:** MEC-ENGR 449.

MEC-ENGR 5554 Power Generation Systems Credits: 3
Fundamentals of the power industry in a format suitable for all engineering disciplines. Survey of electric power systems, including fossil and nuclear steam cycles, combustion turbines, combined cycles, and renewable such as solar and wind. Introduction to major machinery components, systems, controls, and an overview of fuels, emissions, and emission control technologies.

**Prerequisites:** MEC-ENGR 299.

**Cross Listings:** MEC-ENGR 454.

MEC-ENGR 5557 Mechatronics System Design Credits: 3
Theory and application of mechatronic systems through course instruction, laboratory activities, and student projects.

**Prerequisites:** MEC-ENGR 352 and MEC-ENGR 415.

**Cross Listings:** MEC-ENGR 457.

MEC-ENGR 5558 Intermediate Dynamics Credits: 3
Development of kinematics and dynamics of rigid bodies in three-dimensional space including: general theory of rotating coordinate frames, Euler's angles, Euler's equations of motion, angular momentum, work-energy principles, and Kane's method for creation and simulation of dynamic models.

**Prerequisites:** MEC-ENGR 285.
Prerequisites: MEC-ENGR 220 (or equivalent).

Cross Listings: MEC-ENGR 460.

MEC-ENGR 5563 Engineer in Society - Construction Law Credits: 3
This course introduces professional, ethical, and legal concepts of the professional practice of engineering, and the role of the consulting engineer, specifically in the A/E/C industry during the design, procurement, and construction processes. A conceptual framework is developed for understanding the industry standard agreements (AIA, EJCDC, ConCensus) and the various participants roles and duties in project execution. The engineer’s “professional standard of care” is examined and revisited throughout the semester, specifically what it means to be a “Professional Engineer”. Emphasis is placed on project and contract management and the applicable law. Skills are developed in finding online resources of law, legal, and practice advice relevant to the practice of engineering and the construction industry.

MEC-ENGR 5564 Project Finance Credits: 3
This course provides an overview of the financial concepts faced by engineers in the businesses in which they work and for the projects to which they are assigned. Throughout the course students are reminded of the impact of two key variables – money and time – on their work. While not attempting to turn good engineers into mediocre accountants, the course includes a strong emphasis on managerial accounting. Students will learn how to read and apply financial statements and how to use these same financial concepts in developing pro formas to evaluate and support major capital investments. The effect of time on the value of money, appropriate discount factors, and the internal rate of return will be explored in the class. Students will learn to combine these financial factors with electronic spreadsheets to evaluate business opportunities and practices. All students will be required to develop a comprehensive financial model to evaluate/justify a real world capital project.

MEC-ENGR 5565 Fuel Cells and Renewable Energy Systems Credits: 3
This course will provide an overview of the fundamental phenomena that govern the design and operation of fuel cells. The thermodynamics of fuel cell systems will be explored including operation of ideal fuel cells and the physical and chemical phenomena that lead to losses within the fuel cell. The course will provide the methods and techniques required to analyze the performance of low, medium, and high temperature fuel cells within an overall energy system. The fueling of fuel cells from renewable resources will also be discussed.

Prerequisites: MEC-ENGR 399.

Cross Listings: MEC-ENGR 467.

MEC-ENGR 5566 Introduction to Nuclear Engineering Credits: 3
This course provides an overview of nuclear engineering for non-nuclear engineers. The course deals primarily with nuclear reactors including topics dealing with nuclear and reactor physics, reactor kinetics and controls and radiation environment. The general reactor types are covered in some detail with other topics dealing with licensing, waste management, quality assurance, balance of plant systems (turbine island), and significant nuclear accidents are also covered. Recent design innovations including small modular reactors and fusion are discussed.

Prerequisites: MEC-ENGR 399.

Cross Listings: MEC-ENGR 468.

MEC-ENGR 5567 Experimental Design & Analysis Credits: 3
Presentation of concepts and methods of statistical analysis and the design of experiments. Concepts, techniques, interpretation, and use of results are stressed. Focus is on experimental strategy and objectives, and the application of the methods discussed, rather than the mechanics of derivation. Major sections include: a review of hypothesis testing and basic analysis of variance techniques; single factor experiments including 2k and 3k design, confounding, and Taguchi philosophy; nested and split plot designs; analysis of covariance and an introduction to response surface methods.

MEC-ENGR 5568 Advanced Statistics Credits: 3
The objective of this course is to review the concepts and methods of undergraduate first course in statistical analysis and extend the student's understanding to cover topics typically covered in a second course in applied engineering statistics. Concepts, techniques, interpretation, and use of results are stressed. Focus is on the application of the methods discussed, rather than the mechanics of derivation.

Prerequisites: CIV-ENGR 319 (or equivalent).

MEC-ENGR 5570 Linear Programming for Engineering Optimization Credits: 3
This course will cover techniques and applications of engineering optimization using linear programming techniques. The main topics will be the simplex algorithm, sensitivity analysis, duality, network models, and integer programming. Main applications will include transportation, shipments, and utility planning. Stochastic models, game theory, non-linear programming, and heuristic optimization techniques will be briefly mentioned, but not explored in detail. At the conclusion of the course the student should be able to formulate and solve optimization problems in several areas of engineering.

Prerequisites: MEC-ENGR 306.
MEC-ENGR 5586 Applied Finite Element Analysis Credits: 3
The study of advanced simulation techniques for the solution to engineering problems. The use of Finite Element Method toward solving mechanical, structural, vibration and potential flow problems will be explored. The use of current commercial simulation tools will be used extensively.
**Prerequisites:** CIV-ENGR 275, MATH 5517, MEC-ENGR 130.

MEC-ENGR 5595 Microscale Heat Transfer Credits: 3
Review of existing models. Concept of thermal lagging and the second-law admissibility. Applications to low temperatures, thermal processing of thin-film devices; amorphous materials; advanced composites.
**Prerequisites:** MEC-ENGR 399.

MEC-ENGR 5599 Research Credits: 1-99
Independent investigation in field of mechanical engineering to be presented as a thesis.

MEC-ENGR 5601 Doctoral Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5601AC Doctoral Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5601C Doctoral Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5601F Doctoral Topics in Mechanical Engineering Credits: 3

MEC-ENGR 5601G Doctoral Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5601H Doctoral Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5601J Doctoral Topics in Mechanical Engineering Credits: 3

MEC-ENGR 5601R Doctoral Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5601SA Doctoral Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5603 Directed Readings in Mechanical Engineering Credits: 1-3
Faculty supervised readings course.

**Prerequisites:** Graduate standing.

MEC-ENGR 5610 Seminar Credit: 1
Review recent investigations, projects of major importance in mechanical engineering.

MEC-ENGR 5616 Theory of Plasticity Credits: 3
Plastic yield conditions and stress-strain relations. Behavior of elastic-perfectly plastic members. Plain strain in plastic members.

**Prerequisites:** MEC-ENGR 5621, MEC-ENGR 5622.

MEC-ENGR 5618 Multibody System Dynamics Credits: 3
Fundamental principles of advanced rigid body dynamics with applications. Special mathematical techniques including Lagrangian and Hamiltonian methods.

**Prerequisites:** MEC-ENGR 285, MEC-ENGR 401ID

MEC-ENGR 5621 Continuum Mechanics Credits: 3
Introductory course in the mechanics of continuous media. Basic concepts of stress, strain, constitutive relationships; conservation laws are treated using Cartesian tensor notation. Examples from both solid and fluid mechanics investigated.

**Prerequisites:** CIV-ENGR 276, MATH 345, MEC-ENGR 351.

MEC-ENGR 5622 Theory of Elasticity Credits: 3

**Prerequisites:** MEC-ENGR 5621.

**Cross Listings:** CIV-ENGR 5622.

MEC-ENGR 5623 Theory Of Plates And Shells Credits: 3
Bending of plates with various loading and boundary conditions. Deformations, stresses in thin shells.

**Prerequisites:** MEC-ENGR 5621.

**Cross Listings:** CIV-ENGR 5623.

MEC-ENGR 5624 Theory of Elastic Stability Credits: 3
Buckling of columns, beams, rings, curved bars, thin plates, shells.

**Prerequisites:** MEC-ENGR 5621.

**Cross Listings:** CIV-ENGR 5624.
MEC-ENGR 5627 Dynamics of Machinery Credits: 3
Dynamic balancing or rotating and reciprocating components of turbo-machinery and internal combustion engines. Gas torque analysis, vibration stress analysis and equivalent systems. Numerical and graphical techniques.
Prerequisites: MEC-ENGR 484.

MEC-ENGR 5630 Boundary Layer Theory Credits: 3
Fluid motion at high Reynolds Number. Derivation of Navier-Stokes equations and boundary layer equations. Methods of solution. Transition to turbulent flow. Completely developed turbulent flow.
Prerequisites: MEC-ENGR 441.

MEC-ENGR 5636 Heat Transfer-Convection Credits: 3
Concepts including fluid dynamics, conservation laws, thermal boundary layer theory, forced convection in laminar and turbulent flows, and free convection will be developed and applied.
Prerequisites: MEC-ENGR 399

MEC-ENGR 5637 Heat Transfer-Radiation Credits: 3
Prerequisites: MEC-ENGR 399.

MEC-ENGR 5639 Introduction to Two Phase Flow Credits: 3
The fundamental principles of two-phase flow with applications to a variety of homogeneous mixture as well as separated liquid-liquid, gas-solid, liquid-solid, and gas-liquid flow problems, including steady or transient, laminar or turbulent conditions.
Prerequisites: MEC-ENGR 441.

MEC-ENGR 5643 Industrial Refrigeration Credits: 3
Introduction to and analysis of the thermodynamic cycles and equipment used in Industrial Refrigeration. Applications of Industrial Refrigeration are also discussed.

MEC-ENGR 5660 Combustion Credits: 3
Study of advanced topics in flames and combustion. Detonation and deflagrations, supersonic combustion, air pollution.
Prerequisites: MEC-ENGR 441.

MEC-ENGR 5679 Dynamics of Structures Credits: 3
Study of the dynamic behavior of structures. Analysis of equivalent lumped parameter systems for the design of structures in a dynamic environment.
Prerequisites: CIV-ENGR 276 (or CIV-ENGR 421), MEC-ENGR 484 (or MATH 345, MEC-ENGR 285).

MEC-ENGR 5685 Advanced Vibration Analysis Credits: 3
Advanced topics in vibration theory and its application to Mechanical systems. Topics include vibration analysis of multi-degree of freedom, distributed and nonlinear systems, random vibration analysis, and vibration control.
Prerequisites: MEC-ENGR 484.

MEC-ENGR 5699 Research And Dissertation Credits: 1-9
Doctoral dissertation research.
Civil Engineering

The American Society of Civil Engineers (ASCE) defines civil engineering as "the profession in which a knowledge of the mathematical and physical sciences gained by study, experience, and practice is applied with judgment to develop ways to utilize economically, the materials and forces of nature for the progressive well-being of humanity in creating, improving and protecting the environment, in providing facilities for community living, industry and transportation, and in providing structures for the use of humankind". The CE program aims to prepare students with a breadth and depth in the technical knowledge so that they can work immediately in most areas of the profession including geotechnical engineering; hydraulics, hydrology, environmental engineering; structural engineering; and transportation/traffic engineering.
Bachelor of Science in Civil Engineering

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

• Use mathematical methods to make design decisions.
• Analyze applied loads and material characteristics to design structures meeting code requirements.
• Use engineering software to help create design solutions.
• Perform strength and durability tests on construction materials.
• Write technical documents communicating engineering analysis and design solutions.
• Design an engineering solution reflecting current engineering industry standard of care for a community problem.

Admissions
High school students planning to apply to the School of Computing & Engineering are strongly encouraged to take a college preparatory program that emphasizes mathematics, science and communication skills.

First-time college student applicants to the undergraduate program in information technology will be admitted if they obtain:

1. An ACT mathematics score of at least 25 and
2. An ACT composite score of at least 24

First-time college student applicants who do not meet the above criteria but do meet UMKC general admission requirements will have their applications reviewed by a faculty committee for admission. Applicants who are not admitted to SCE but do meet UMKC general admission requirements may be admitted to University College.

Students without the prerequisite preparation must take the needed coursework before enrolling in courses required for the bachelor's degree. Students seeking re-admission must have been in good academic standing when last enrolled. Otherwise, re-admission requires a formal review by the undergraduate program committee.

Transfer applicants must have at least 24 credits of transferable college credit, an overall 2.0 GPA on a 4.0 scale in all coursework, which includes repeated coursework, attempted at previous institutions. Transfer applicants without a 2.0 or higher college GPA must submit a petition for admission.

Program Requirements
The Bachelor of Science in Civil Engineering prepares students with a breadth and depth in the technical knowledge so that they can work immediately in most areas of the profession including geo technical engineering; water and environmental engineering; construction; and structural engineering. Engineering programs must demonstrate that their students attain the outcomes listed above.
The civil engineering curriculum requires a minimum of 127 hours of coursework and satisfies the UMKC General Education requirements.

Notes: Civil Engineering students must complete three (3) applied skills requirements. (Machine Shop Safety class must be completed prior to using any tools in university sponsored activities and facilities.)

A grade of "C" or higher must be earned in all major required coursework.

All UMKC students must take the ETS Proficiency Profile after completing 70 credit hours and before applying for graduation (http://www.umkc.edu/exitexams/).

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Anchor I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Anchor II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Anchor III (Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
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<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied in the Constitution course requirement below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus Elective (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits: 18

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions."

Courses at UMKC that satisfy this state requirement are:

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<td></td>
<td>Choose one of the following:</td>
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<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td></td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) 1</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.
## Major Requirements

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td><strong>Math and Science Requirements</strong></td>
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<tr>
<td>CHEM 211 &amp; 211L</td>
<td>General Chemistry I and Experimental General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 266</td>
<td>Accelerated Calculus I (^1)</td>
<td>4</td>
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<tr>
<td>MATH 268</td>
<td>Accelerated Calculus II</td>
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<td>MATH 250</td>
<td>Calculus III</td>
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<tr>
<td>MATH 345</td>
<td>Ordinary Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>PHYSICS 240</td>
<td>Physics For Scientists and Engineers I (Focus B)</td>
<td>5</td>
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<tr>
<td>PHYSICS 250</td>
<td>Physics For Scientists and Engineers II (Focus B)</td>
<td>5</td>
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<tr>
<td><strong>Engineering Fundamental Course Requirements</strong></td>
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<tr>
<td>CIV-ENGR 275</td>
<td>Engineering Statics</td>
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<tr>
<td>CIV-ENGR 276</td>
<td>Strength Of Materials</td>
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<tr>
<td>CIV-ENGR 351</td>
<td>Fluid Mechanics</td>
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<td>MEC-ENGR 130</td>
<td>Engineering Graphics</td>
<td>3</td>
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<tr>
<td>E&amp;C-ENGR 216</td>
<td>Engineering Computation</td>
<td>4</td>
</tr>
<tr>
<td>CIV-ENGR 319</td>
<td>Engineering Computation and Statistics</td>
<td>3</td>
</tr>
<tr>
<td><strong>Civil Engineering Fundamental Course Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANCH 311</td>
<td>Civil Engineering Capstone Design II</td>
<td>3</td>
</tr>
<tr>
<td>CIV-ENGR 318</td>
<td>GIS for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>CIV-ENGR 321</td>
<td>Structural Analysis</td>
<td>4</td>
</tr>
<tr>
<td>CIV-ENGR 335</td>
<td>Soil Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>CIV-ENGR 378WI</td>
<td>Civil Engineering Materials</td>
<td>3</td>
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<tr>
<td>CIV-ENGR 411</td>
<td>Civil Engineering Systems Design I</td>
<td>2</td>
</tr>
<tr>
<td>CIV-ENGR 422WI</td>
<td>Reinforced Concrete Design</td>
<td>3</td>
</tr>
<tr>
<td>CIV-ENGR 432</td>
<td>Foundation Engineering</td>
<td>3</td>
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<tr>
<td>CIV-ENGR 467</td>
<td>Introduction to Construction Management</td>
<td>3</td>
</tr>
<tr>
<td>CIV-ENGR 497</td>
<td>Engineering Hydrology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Civil Engineering Electives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIV-ENGR 111</td>
<td>First Year Cornerstone (Strongly Recommended for First Time College Students)</td>
<td>3</td>
</tr>
<tr>
<td>Take 21 hours of civil engineering electives with 12 hours at the 300/400 level.</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Take 3 hours of applied skills electives (see advisor for options).</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Machine Shop Safety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fundamentals of Surveying</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA Safety</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 106

\(^1\) Students not meeting the MATH 266 prerequisite requirements will have 3-8 additional hours (MATH 110 and MATH 125, or MATH 120) with a minimum grade of ’B’.

Minimum GPA: 2.0

Total Credit Hours: 127

## Tools for Planning and Filling Academic Requirements

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”.

In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.
UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Civil Engineering Career Opportunities

Kansas City is one of the premier centers of engineering design in the country. Numerous civil infrastructure design and construction firms with national and international reputation are headquartered in Kansas City. This offers a unique opportunity to our students, many of whom participate actively as interns or as employees with these firms during the course of their study, thereby, getting a balanced blend of course work and practical experience.

Job opportunities abound for engineering majors. In terms of starting salaries and the number of job offers, engineering graduates compare favorably with all other graduates. In addition, the civil engineering curriculum at UMKC equips the graduate with the analytic decision-making skills necessary to pursue diverse technical, managerial and entrepreneurial career opportunities.
Civil Engineering Program Description

The program offers the bachelor's degree and the master's degree in civil engineering and participates in the UMKC Interdisciplinary Ph.D. program. The Bachelor of Science in Civil Engineering is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org/.

The Master of Science in Civil Engineering has both thesis and non-thesis options. Students interested in pursuing a doctoral degree in civil engineering may select engineering as a discipline when applying for admission into the Interdisciplinary Ph.D. program.

The civil engineering program has a rich history in Kansas City. The University of Kansas City offered a General Engineering degree in the 1950's. The master's program in civil engineering was started in 1964 and later the undergraduate program was added in the early 1970s. Since 1977, the undergraduate program in civil engineering has been independently accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org/. The program became a part of the School of Computing and Engineering (SCE) in January 2001 and is housed in Flarsheim Hall.
Civil Engineering Specialty Areas

UMKC's Civil Engineering Program has faculty members who are active in research with funding from numerous local and national industries and government agencies.

Research and study are available in the following specialty areas:

- Environmental and Water Resources
- Structures
- Materials
- Construction Management

For more information, visit our website at http://sce.umkc.edu.
Doctoral Studies in Civil Engineering

Civil Engineering participates in the Interdisciplinary Ph.D. program of the University of Missouri-Kansas City as part of the engineering discipline. Students interested in pursuing a doctoral degree in civil engineering may select engineering as the primary discipline when applying for admission into the Interdisciplinary Ph.D. Program. See the School of Graduate Studies section of this catalog for general and discipline-specific admission requirements and regulations for Interdisciplinary Ph.D. study with engineering as one of the desired disciplines.
Engineering and Construction Project Management Certificate

Student Learning Outcomes

Students graduating from this program will:

• An ability to apply knowledge of mathematics, science, and engineering.
• An ability to design and conduct experiments, as well as to analyze and interpret data.
• An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
• An ability to function on multi-disciplinary teams.
• An ability to identify, formulate, and solve engineering problems.
• An understanding of professional and ethical responsibility.
• An ability to communicate effectively.
• The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
• A recognition of the need for, and an ability to engage in life-long learning.
• A knowledge of contemporary issues.
• An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Program Requirements

The Graduate Certificate in Engineering and Construction Project Management is a 12 hour program offered through the School of Computing and Engineering. Engineering and construction companies are increasingly requiring project management skills for those who hold technical degrees to successfully complete projects and to be promoted in their organizations. The Graduate Certificate program is designed to meet this need and enable students holding a Bachelor’s degree in an appropriate discipline to learn higher-level project management skills that are critical to the successful planning and completion of projects across the spectrum of engineering, construction, and related disciplines. The Graduate is intended for post-Baccalaureate professionals working in the Kansas City area in mid- and upper-level engineering, construction, and management positions. The Certificate requires a minimum of 12 credit hours at the 5000-level or above. Students must maintain 3.0 graduate GPA while enrolled. Upon completion, up to 12 hours of Civil Engineering Certificate courses may be applicable to the MS in Civil Engineering.

Core classes (Required): 9 credit hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIV-ENGR 5501PM</td>
<td>Advanced Project Management of Integrated Design and Construction</td>
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</tr>
<tr>
<td>CIV-ENGR 5567</td>
<td>Introduction to Construction Management</td>
<td>3</td>
</tr>
<tr>
<td>CIV-ENGR 5547</td>
<td>Contracts and Law for Engineers</td>
<td>3</td>
</tr>
</tbody>
</table>
o | CIV-ENGR 5563  | Construction Law                                          | 3       |

**Students must take either Contracts and Law for Engineers or Construction Law as part of the required classes.

Approved electives (Choose one): 3 credit hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIV-ENGR 5565</td>
<td>Project Finance</td>
<td>3</td>
</tr>
<tr>
<td>CIV-ENGR 5501DM</td>
<td>Advanced Topics in Civil Engineering - Capital Project Delivery Methods</td>
<td>1-3</td>
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<tr>
<td>CIV-ENGR 5515</td>
<td>Engineering Leadership &amp; Ethics</td>
<td>3</td>
</tr>
<tr>
<td>CIV-ENGR 5569</td>
<td>Construction Methods and Equipment</td>
<td>3</td>
</tr>
<tr>
<td>CIV-ENGR 5566</td>
<td>Green Building and Sustainable Infrastructure</td>
<td>3</td>
</tr>
<tr>
<td>CIV-ENGR 5568</td>
<td>Construction Planning and Scheduling</td>
<td>3</td>
</tr>
<tr>
<td>CIV-ENGR 5549</td>
<td>Environmental Compliance, Auditing, &amp; Permitting</td>
<td>3</td>
</tr>
</tbody>
</table>
Master of Science in Civil Engineering

Student Learning Outcomes

Students graduating from this program will:

- An ability to apply knowledge of mathematics, science, and engineering.
- An ability to design and conduct experiments, as well as to analyze and interpret data.
- An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
- An ability to function on multi-disciplinary teams.
- An ability to identify, formulate, and solve engineering problems.
- An understanding of professional and ethical responsibility.
- An ability to communicate effectively.
- The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
- A recognition of the need for, and an ability to engage in life-long learning.
- A knowledge of contemporary issues.
- An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Program Requirements

The civil engineering program offers graduate students an opportunity to get a state-of-the-art education in dynamic, challenging and professionally significant specialty areas. With written approval from the faculty advisor, master’s students are allowed to take credits in other fields to encourage them to broaden their education beyond the civil engineering field. There are three degree options for earning a master’s in civil engineering: coursework only, project or thesis options. For further information call (816) 235-5550 or e-mail sce@umkc.edu.

- Master of Science with coursework only requires the completion of a minimum of 30 credit hours of approved graduate coursework (300-level or higher). The graduate coursework must include at least 18 credit hours of 5500/5600-level courses.
- Master of Science with project requires the completion of a minimum of 30 credit hours, which includes 27 credit hours of approved graduate coursework (300-level or higher) and three credit hours of independent project (CIV-ENGR 5500). At least 18 credit hours must be at the 5500/5600-level. The candidate must submit a report prepared per the advisor’s guidelines and present the project work in front of a three-member project examining committee.
- Master of Science with thesis requires the completion of a minimum of 30 credit hours, which includes 24 credit hours of approved graduate coursework (300-level or higher) and six credit hours of thesis work (CIV-ENGR 5599). At least 18 credit hours must be at the 5500/5600-level. The candidate must submit a thesis prepared per the graduate school guidelines and orally defend the thesis work in front of a three-member thesis examining committee.

A minimum of three credit hours of advanced mathematics from an approved course list is required for the M.S. degree in Civil Engineering. Exceptions are available by petition to the CME Graduate Committee.

Other specifications for students pursuing the project or thesis option:

1. The student must request to schedule a project or thesis defense in the first half of the semester in which the student plans to defend.
2. The written part of the project/thesis must be completed and given to all the committee members at least ten days prior to the defense date.
3. The defense date and an abstract must be advertised to the CME faculty and students at least one week prior to the scheduled defense date.
Mechanical Engineering

Mechanical engineering (ME) is one of the broadest of the engineering disciplines, therefore, mechanical engineers are the generalists of the engineering profession. Mechanical engineers design, construct, test and operate many types of mechanical, thermal and biological devices. They are involved in almost every industry, including aerospace, automotive, bioengineering, communications, electronics, energy, food processing, HVAC, manufacturing, power generation and refrigeration, as well as business, government and academia. The ME program aims to prepare students with a breadth and depth in technical knowledge so that they can work immediately in most areas of the profession.
Bachelor of Science in Mechanical Engineering

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:
• 1. Students will be able to use mathematical methods to make design decisions.
• 2. Students will be able to analyze conduction and convection properties of thermal-fluid systems.
• 3. Students will be able to analyze kinematics and dynamics of mechanical components.
• 4. Students will be able to develop algorithms for solving engineering problems.
• 5. Students will be able to analyze strength characteristics of engineering materials.
• 6. Students will be able to use measurements to solve engineering problems.

Admissions
High school students planning to apply to the School of Computing & Engineering are strongly encouraged to take a college preparatory program that emphasizes mathematics, science and communication skills.

First-time college student applicants to the undergraduate program in information technology will be admitted if they obtain:
1. An ACT mathematics score of at least 25 and
2. An ACT composite score of at least 24

First-time college student applicants who do not meet the above criteria but do meet UMKC general admission requirements will have their applications reviewed by a faculty committee for admission. Applicants who are not admitted to SCE but do meet UMKC general admission requirements may be admitted to University College.

Students without the prerequisite preparation must take the needed coursework before enrolling in courses required for the bachelor’s degree. Students seeking re-admission must have been in good academic standing when last enrolled. Otherwise, re-admission requires a formal review by the undergraduate program committee.

Transfer applicants must have at least 24 credits of transferable college credit, an overall 2.0 GPA on a 4.0 scale in all coursework, which includes repeated coursework, attempted at previous institutions. Transfer applicants without a 2.0 or higher college GPA must submit a petition for admission.

Program Requirements
The Bachelor of Science in Mechanical Engineering prepares students with a breadth and depth in technical knowledge so that they can work immediately in most areas of the profession. Engineering programs must demonstrate that their students attain the outcomes listed above.

The Mechanical Engineering curriculum requires a minimum of 130 hours of coursework and satisfies the UMKC General Education requirements.
Notes: Machine Shop Safety class must be completed prior to using any tools in university sponsored activities and facilities.

A grade of C or higher must be earned in all major required coursework.

All UMKC student must take the ETS Proficiency Profile after completing 70 credit hours and before applying for graduation (http://www.umkc.edu/exitexams/).

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

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<td>Anchor II</td>
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<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
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</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied by the Constitution course requirement below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus Elective (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total credits in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 18

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions."

Courses at UMKC that satisfy this state requirement are:

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</thead>
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<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 3

Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

Major Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math and Science Requirements</td>
<td>ALEKS Math Placement</td>
<td></td>
</tr>
</tbody>
</table>
**Bachelor of Science in Mechanical Engineering**

**MATH 110** (Precalculus Algebra; Typically not required due to ACT Admission Requirement)

**MATH 120** (Precalculus; Typically not required due to ACT Admission Requirement)

**CHEM 211**
General Chemistry I

& 211L
and Experimental General Chemistry I (Focus B)

**MATH 266**
Accelerated Calculus I

**MATH 268**
Accelerated Calculus II

**MATH 250**
Calculus III

**MEC-ENGR 272**
Engineering Analysis II

**PHYSICS 240**
Physics For Scientists and Engineers I (Focus B)

**PHYSICS 250**
Physics For Scientists and Engineers II (Focus B)

**Engineering Fundamental Course Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>E&amp;C-ENGR 216</td>
<td>Engineering Computation</td>
<td>4</td>
</tr>
<tr>
<td>CIV-ENGR 275</td>
<td>Engineering Statics</td>
<td>3</td>
</tr>
<tr>
<td>CIV-ENGR 276</td>
<td>Strength Of Materials</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 276</td>
<td>Circuit Theory I</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 277</td>
<td>Circuit Theory I Lab</td>
<td>1</td>
</tr>
<tr>
<td>CIV-ENGR 319</td>
<td>Engineering Computation and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MEC-ENGR 130</td>
<td>Engineering Graphics</td>
<td>3</td>
</tr>
<tr>
<td>MEC-ENGR 285</td>
<td>Engineering Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>MEC-ENGR 306</td>
<td>Computer-Aided Engineering</td>
<td>3</td>
</tr>
<tr>
<td>MEC-ENGR 352</td>
<td>Mechanical Instruments Lab</td>
<td>2</td>
</tr>
<tr>
<td>MEC-ENGR 353</td>
<td>Heat Transfer and Fluid Mechanics Lab</td>
<td>2</td>
</tr>
</tbody>
</table>

**Energy Systems Course Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIV-ENGR 351</td>
<td>Fluid Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>MEC-ENGR 299</td>
<td>Engineering Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>MEC-ENGR 360</td>
<td>Thermal System Design</td>
<td>3</td>
</tr>
<tr>
<td>MEC-ENGR 399</td>
<td>Heat and Mass Transfer</td>
<td>3</td>
</tr>
</tbody>
</table>

**Engineering Design Course Requirements**

Choose one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEC-ENGR 440</td>
<td>Heating and Air Conditioning</td>
<td>3</td>
</tr>
<tr>
<td>MEC-ENGR 451</td>
<td>Power Plant Design</td>
<td>3</td>
</tr>
<tr>
<td>MEC-ENGR 457</td>
<td>Mechatronic System Design</td>
<td>3</td>
</tr>
</tbody>
</table>

**Mechanical System Course Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANCH 309</td>
<td>Mechanical Design Synthesis I</td>
<td>3</td>
</tr>
<tr>
<td>MEC-ENGR 324</td>
<td>Engineering Materials</td>
<td>3</td>
</tr>
<tr>
<td>MEC-ENGR 324L</td>
<td>Engineering Materials Lab</td>
<td>1</td>
</tr>
<tr>
<td>MEC-ENGR 356</td>
<td>Mechanical Component Design</td>
<td>3</td>
</tr>
<tr>
<td>MEC-ENGR 380</td>
<td>Manufacturing Methods</td>
<td>3</td>
</tr>
<tr>
<td>MEC-ENGR 385</td>
<td>System Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>MEC-ENGR 496WI</td>
<td>Mechanical Design Synthesis</td>
<td>3</td>
</tr>
</tbody>
</table>

**Mechanical Engineering Electives**

Take 15 hours of mechanical engineering electives at the 300/400 level.

Take 1 hour of Machine Shop Safety.  

**Total Credits**

109

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1. Students not meeting the MATH 266 prerequisite requirements will have 3-8 additional hours (MATH 110 and MATH 125, or MATH 120) with a minimum grade of 'B'.

2. Machine Shop Safety is not currently offered at UMKC. Students should consult with advisor for available options.

**Minimum GPA: 2.0**

**Total Credit Hours: 130**
Tools for Planning and Fulfiling Academic Requirements

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major "fit". In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student's officially recorded (Office of Registration and Records) and "what if" plans of study. This evaluation is used to certify all graduation requirements.

UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Doctoral Studies in Mechanical Engineering

Mechanical Engineering participates in the Interdisciplinary Ph.D. program of the University of Missouri-Kansas City as part of the engineering (p. 1268) discipline. Students interested in pursuing a doctoral degree in mechanical engineering may select engineering as the coordinating discipline when applying for admission into the Interdisciplinary Ph.D. Program (p. 1225). See the School of Graduate Studies (p. 1185) section of this catalog for general and discipline-specific admission requirements and regulations for Interdisciplinary Ph.D. study with engineering as one of the desired disciplines.
Master of Science in Mechanical Engineering

Student Learning Outcomes

Students graduating from this program will:

• An ability to apply knowledge of mathematics, science, and engineering.
• An ability to design and conduct experiments, as well as to analyze and interpret data.
• An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
• An ability to function on multi-disciplinary teams.
• An ability to identify, formulate, and solve engineering problems.
• An understanding of professional and ethical responsibility.
• An ability to communicate effectively.
• The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
• A recognition of the need for, and an ability to engage in life-long learning.
• A knowledge of contemporary issues.
• An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Program Requirements

The mechanical engineering program offers graduate students an opportunity to get a state-of-the-art education in dynamic, challenging and professionally significant specialty areas. With written approval from the faculty advisor, master’s students are allowed to take credits in other fields to encourage them to broaden their education beyond the mechanical engineering field. There are three degree options for earning a master’s in mechanical engineering: coursework only, project or thesis options. For further information call (816) 235-5550 or e-mail sce@umkc.edu.

• Master of Science with coursework only option requires the completion of a minimum of 30 credit hours of approved graduate coursework (300-level or higher). The graduate coursework must include at least 18 credit hours of 5500/5600-level courses.
• Master of Science with project requires the completion of a minimum of 30 credit hours, which includes 27 credit hours of approved graduate coursework (300-level or higher) and three credit hours of independent project (MEC-ENGR 5500). At least 18 credit hours must be at the 5500/5600-level. The candidate must submit a report prepared per the advisor’s guidelines and present the project work in front of a three-member project examining committee.
• Master of Science with thesis option requires the completion of a minimum of 30 credit hours of approved graduate coursework (300-level or higher). The graduate coursework must include at least 24 credit hours of approved graduate coursework (300-level or higher) and six credit hours of thesis work (MEC-ENGR 5599). At least 18 credit hours must be at the 5500/5600-level. The candidate must submit a thesis prepared per the graduate school guidelines and orally defend the thesis work in front of a three-member thesis examining committee.

A minimum of six credit hours of advanced mathematics from an approved course list is required for the M.S. degree in Mechanical Engineering. Exceptions are available by petition to the CME Graduate Committee.

Other specifications for students pursuing the project or thesis option:

1. The student must request to schedule a project or thesis defense in the first half of the semester in which the student plans to defend.
2. The written part of the project/thesis must be completed and given to all the committee members at least ten days prior to the defense date.
3. The defense date and an abstract must be advertised to the CME faculty and students at least one week prior to the scheduled defense date.
Mechanical Engineering Career Opportunities

Kansas City is one of the premier engineering centers in the country. Numerous engineering and manufacturing firms with national and international reputation are headquartered in Kansas City. This offers a unique opportunity to our students, many of whom participate actively as interns or as employees with these firms during the course of their study, thereby getting a balanced blend of course work and practical experience.

Job opportunities abound for engineering majors. In terms of starting salaries and the number of job offers, engineering graduates compare favorably with all other graduates. In addition, the mechanical engineering curriculum at UMKC equips the graduate with the analytic decision-making skills necessary to pursue diverse technical, managerial and entrepreneurial career opportunities.
Mechanical Engineering Program Description

The program offers the bachelor’s degree and the master's degree in mechanical engineering and participates in the UMKC Interdisciplinary Ph.D. program. The Bachelor of Science in Mechanical Engineering is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org/.

The Master of Science in Mechanical Engineering has both thesis and non-thesis options. Students interested in pursuing a doctoral degree in mechanical engineering may select engineering as a discipline when applying for admission into the Interdisciplinary Ph.D. program.

The mechanical engineering program has a rich history in Kansas City. The University of Kansas City offered a General Engineering degree in the 1950’s. The master’s program in mechanical engineering was started in 1964 and later the undergraduate program was added in the early 1970s. Since 1977 the undergraduate program in mechanical engineering has been independently accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org/. The program became a part of the School of Computing and Engineering (SCE) in January 2001 and is housed in Flarsheim Hall.
Mechanical Engineering Specialty Areas

UMKC's Mechanical Engineering Program has faculty members who are active in research with funding from numerous local and national industries and government agencies.

Research and study are available in the following specialty areas:

- Biomechanics
- Materials & Manufacturing
- Thermal Sciences & Renewable Energy
- Vibrations & Controls

For more information, visit our website at http://sce.umkc.edu.
Department of Computer Science Electrical Engineering

Address
University of Missouri-Kansas City
Department of Computer Science Electrical Engineering
546 Robert H. Flarsheim Science and Technology Hall (http://www.umkc.edu/virtualtour/flarsheim-hall.asp)
5110 Rockhill Road
Kansas City, MO 64110-2499

(816) 235-1193
Fax: (816) 235-5159
http://sce.umkc.edu/about/computer-science-electrical-engineering/

Chair:
Ghulam M. Chaudhry

Curators' Professor:
Vijay Kumar, Deep Medhi

Professors:
Ghulam M. Chaudhry (Chair), Lein Harn, Xiaojun Shen, Appie van de Liefvoort

Professor Emeritus:
Richard Hetherington

Associate Professors:
Cory Beard, Baek-Young Choi, Deb Chatterjee, Masud Chowdhury, Reza Derakhshani, Deendayal Dinakarpandian, Yijie Han, Faisal Khan, Jerome Knopp, Yugyung Lee, Zhu Li, Ken Mitchell, Praveen Rao, Sejun Song

Associate Teaching Professor:
Brian Hare, Kevin Kirkpatrick

Assistant Professors:
Ahmed Hassan, Mostifizur Rahman, Yongjie Zheng

Assistant Teaching Professors:
Preetham Goli, Mohammad Kuhail

Instructors:
Kendall Bingham, Michael Kelly, Mahbube Siddiki, May Zein el din

Assistant Professor Emeritus:
David Skitek

CSEE Administrative Staff:
Gina N. Campbell, Sharon Griffith

Department Description
The CSEE Department has 30 full-time faculty members, including Curators' professors. Our faculty is at the forefront in research with funding from NSF and industries. We have strong partnerships with:

- Accent Controls
- Black & Veatch
- Black & McDonald
- Burns & McDonnell
- Cerner
- Cisco
- Commerce Bank
- Creative Capsule
- DST
- Ericsson
- Garmin
Most of our corporate supporters are headquartered in the Kansas City area. Additionally, within UMKC, there are ongoing collaborations with other schools. In the life sciences area, we have partnerships with life and health sciences schools at UMKC and life sciences partners in the Kansas City area through the Kansas City Area Life Sciences Institute (KCALSI).

We have research and teaching strengths in the following areas:

- Networking and Telecommunications (design, protocols, routing, security, teletraffic modeling and analysis, monitoring, performance modeling, RF/wireless communication, optical, mobile computing, sensors, queueing theory, etc.).
- Software Engineering and Systems (object-oriented design and analysis, data sciences, database/information management, middleware, intelligent agents, peer-to-peer computing, mobile databases, data mining, knowledge discovery, intrusion detection, etc.).
- Biomedical Informatics (machine learning and data mining methods for biological and medical data, modeling biological systems, biomedical information representation and sequence & structural analyses of biomolecules).
- Communications, Signal and Image Processing (digital signal processing, computational electromagnetics, RF and antenna theory and design, biomedical image processing, biometrics, neural networks, etc.).
- Computer Engineering (VLSI and mixed-signals chip design, performance and design of low power devices, embedded systems, System-On-Chip (SOC) and ASIC/FPGA design).
- Algorithms (complexity, distributed and parallel computations, graph, optimization, and combinatorial algorithms).
- Power Engineering

The CSEE department is committed to excellence in teaching. We stay on the top of the technology curve and continually offer new courses in emerging/hot topics. Our graduates are sought after by regional as well as national companies.

Advising and Registration

For advising in regard to their degree programs, students need to contact the DST Student Services Center. Each student is assigned an advisor. Students are required to meet with their advisor every semester prior to registration for the following semester.

Student Organizations

CSEE encourages every student to actively participate in a student organization that matches his or her interests. The SCE Student Council addresses the needs of the students within the School of Computing and Engineering. These organizations include:

SCE Student Council (http://sce.umkc.edu/current-students/student-life/organizations/student-council), who represents, supports and provides an orderly method for government for all students enrolled in the School of Computing and Engineering.

ACM (Association for Computing Machinery) (http://www.acm.org) is the leading professional organization in Computer Science and Information Technology and its student chapter (http://www.umkc.edu/studio/acm) is very active. Among others, it sponsors and participates in numerous programming and web design contests taking home awards from Consortium for Computing Sciences in Colleges (CCSC) and recognition in IEEE Extreme Programming Competition. This year ACM with UMKC IEEE, cosponsored four programming teams in October. One team placed 14th nationally and 177th out of 2300 teams worldwide. Twice a year ACM has a book sale to fund their events.

EWB (http://sce.umkc.edu/current-students/student-life/organizations/ewb) (Engineers Without Borders) The UMKC chapter of EWB has a focus of Local and Global engineering projects. These projects are teamed with the professional chapter of EWB-Kansas City. The UMKC chapter of EWB has a global project focus right now in the Dominican Republic. They are working on sanitation solutions to provide clean drinking water to a village known as Kilometer 6. A Local Project focus is in working with the Urban Agriculture group in Kansas City to create rain collectors on roofs and buildings all across the KC area.

IEEE (Institute of Electrical and Electronics Engineers) is the world's leading professional association for the advancement of engineering and technology. As such, many (if not most) electrical and computer engineers, computer scientists, and information technology professionals are members of IEEE. Formed in 1980, our student branch, won the prestigious Region 5 RAB Student Branch Membership Growth and Leadership Award,
the Region 5 Student Branch Web Site Contest and was Runner Up in the IEEE International Student Branch Web Site Contest. In October 2015, UMKC IEEE cosponsored with ACM four programming teams who participated in the IEEEExtreme 9.0 24 hour programming competition. One team not only placed 14th nationally but placed 177/2300 teams globally. The UMKC student branch hosts monthly meetings, company tours and SPACS during the academic year.

Eta Kappa Nu  (Theta Pi Chapter) is the Honor Society in Electrical and Computer Engineering. The student chapter at UMKC was installed in 1980. Members also participate in community outreach activities such as teaching K-12 students about science, technology, engineering and math.

MSPE/NSPE (http://sce.umkc.edu/current-students/student-life/organizations/mspe-nspe) (Missouri Society of Professional Engineers) is an engineering organization dedicated to emphasizing the importance of professional engineering licensure, encouraging the safe and ethical practice of engineering and facilitating interaction between student chapter members and members of the profession.

NSBE (http://sce.umkc.edu/current-students/student-life/organizations/nsbe) (National Society of Black Engineers) NSBE seeks "to increase the number of culturally responsible Black Engineers who excel academically, succeed professionally, and positively impact the community."

SWE (http://sce.umkc.edu/current-students/student-life/organizations/swe) (Society of Women Engineers) The purpose is to stimulate women to achieve full potential in careers as engineers and leaders, expand the image of the engineering profession as a positive force in improving the quality of life, and to demonstrate the value of diversity.

TBP  (Tau Beta Pi Mo-Delta Chapter) is the honor society for all engineering majors.

UMKC Robotics (https://roogroups.collegiatelink.net/organization/UMKCRobotics) is a design/build team comprised of students from any discipline and level at UMKC or Rockhurst. Formed in 2004, the team mainly competes at the annual IEEE Region 5 Robotics Competition but not solely this competition. April 2015 five teams from UMKC entered the Region 5 competition with one placing second, one sixth and one in eleventh place out of approximately twenty teams. In addition to robot competitions, we provide educational opportunities to students wishing to learn about robotics, programming, and electronics. Our calendar is filled with several community outreach activities throughout the year.

Upsilon Pi Epsilon (http://upe.acm.org) is the International Honor Society for the computing and information discipline. A UPE student chapter (http://www.umkc.edu/studo/upe) was founded in 2004. They organize field trips to local organizations and industries with a strong CS/IT presence. In addition, they provide tutoring assistance to undergraduate students.

Undergraduate

Undergraduate Degrees:

• Bachelor of Information Technology (p. 849)
• Bachelor of Science in Computer Science (p. 853)
• Bachelor of Arts in Computer Science (p. 858)
• BS/MS Computer Science Program (p. 862)
• Minor in Computer Science
• Bachelor of Science in Electrical and Computer Engineering (p. 865)
• BS/MS Electrical and Computer Engineering Program (p. 869)

A BS/MS Option for completing both an undergraduate degree and a masters degree within five years is available for CS and ECE/EE, as described below. Furthermore, a minor in computer science is available as well.

The two degrees in computer science are the bachelor of arts in computer science (B.A. with a liberal arts perspective), and bachelor of science in computer science (B.S. with a more thorough technical perspective). The B.S. degree has optional concentrations or emphasis areas in software engineering, computer networking and bioinformatics. The degree prepares the student for work in these industries, as well as for pursuing further graduate education in these areas. The bachelor of science in electrical and computer engineering (B.S.) is for students wanting to pursue a career in electrical engineering or electrical and computer engineering. The bachelor of information technology (B.I.T.) degree caters to the needs of the IT industry and uniquely blends both computer science and business coursework.

Certified General Education Core at Another Missouri Institution

Students wanting to transfer into the CSEE department with a certified 42-hour block of general education credit from another Missouri institution are strongly encouraged to consult an academic advisor in the School of Computing & Engineering in addition to the advisor at their home institution. This ensures coursework taken in this block also satisfies specific degree requirements in our department.
Undergraduate Academic Regulations - All Students Pursuing an Undergraduate Degree

Academic Regulations
All students pursuing an undergraduate degree in the Department of CSEE, i.e. the Bachelor in Information Technology (IT), B.A. in Computer Science (CS), B.S. in Computer Science (CS), or B.S. in Electrical and Computer Engineering (ECE), must follow all academic regulations as specified in the following sections.

Academic Load
For a student to complete the degree in four years, it is imperative that the student takes approximately 15 credit hours worth of coursework each semester (not including summer). The 4-year program samples shown for each degree can be found in the UMKC Major Maps. http://www.umkc.edu/majormap/ They are intended as a planning guideline for students. For a student wanting to complete both an undergraduate degree and a graduate degree in five years, they should consult the appropriate section on our Fast Track Program.

Academic Standing
The University tries to assure that students progress satisfactorily toward their goals and receive clear warning when they do not. To this end, this academic program adheres to a clear policy, but provides for exceptions in unusual cases. The interest of the student is paramount.

Good Academic Standing
A student is in good academic standing when term grade-point average (T-GPA), cumulative grade-point average (C-GPA), and grade-point average in courses necessary for their degree program (D-GPA) from the University of Missouri system are all 2.0 or higher. If a student starts a semester in good academic standing, and receives a T-GPA or D-GPA less than 2.00 (but higher than 1.00), then the student is placed on academic probation. If a student starts a semester in good academic standing, and receives a T-GPA or D-GPA less than 1.00, then the student becomes ineligible to continue their degree objective.

Academic Probation
A student who is placed on probation must return to good academic standing in one or two semesters, under the following restrictions: If the T-GPA, D-GPA, and C-GPA are all 2.0 or higher at the end of the first probationary semester, then the student is returned to Good Academic Standing. If the T-GPA is 2.0 or higher for the first probationary semester, then the student will be allowed to enroll for a second and final probationary semester. If the T-GPA is less than 1.0, the student becomes ineligible to continue their degree objective.

Academic Ineligibility
Students become ineligible to continue their degree objective if either T-GPA or D-GPA is less than 1.0, or if the T-GPA is less than 2.0 in a probationary semester.

Grade Reports
The academic standing statements found at the top of semester grade reports are only calculated from T-GPA and C-GPA (the D-GPA is not incorporated and will be calculated by your advisor) and are defined as follows:

- Now In Good Standing - Term and cumulative GPA greater than 2.0.
- Now In Probation - Term or cumulative GPA less than 2.0.
- Academically Ineligible - Term GPA less than 1.0 or two consecutive semesters with term or cumulative GPA less than 2.0.

Repeating a Course and Grade Replacement
Please see the Request for GPA Adjustment Form (http://www.umkc.edu/registrar/forms/UGRAD_Repeat_Form.pdf) available at the Registrar’s website about retaking a course for which a D+ or less was earned. Repeating a Course and Grade Replacement

Auditing a Course
A student cannot take a course for audit and later expect to take the same course for credit in the degree program. For that reason, students must not audit any courses required in their program, unless credit has already been established.

To audit an elective course, written consent from both the student’s advisor and the instructor of the course is required. After the first week of classes, a student cannot change from credit to audit or audit to credit.

Academic Dishonesty
A student enrolling in any UMKC course is expected to exhibit high standards of academic honesty in all works, and are expected to refrain from cheating and plagiarism. Rules governing any suspected violation are clearly spelled out elsewhere in the UMKC catalog. Instructors are obligated to report any cases of suspected academic dishonesty, and any violation will result in sanctions being imposed on the student, ranging from a warning, probation, loss of financial aid, loss of privileges, suspension, and dismissal. Please note that both receiving and giving unauthorized assistance is considered academically dishonest.
Petitioning

Any exception to academic policy and regulations regarding the degree requirements (e.g. transfer courses taken elsewhere, course waivers, waivers of residency) must be requested through a written petition. The petition form is available from the CSEE Department Office. The completed petition that includes an explanation for the petition should be submitted to the CSEE Department Office with any necessary documents attached. The Degree Program Coordinator or his/her designee will review such petitions and will communicate the result to the student.

Graduation Requirement

For students to obtain an undergraduate degree in the Department of CSEE, they must have passed the courses as specified in various categories under the header Curriculum Requirement for the desired degree, B.I.T, B.A. in CS, B.S. in CS, or B.S. in ECE. In addition, there are a number of University-wide degree requirements and a number of restrictions that apply:

1. A minimum of 36 credit hours from junior/senior level courses must be included.
2. The GPA from all courses attempted at the University of Missouri must be at least 2.0.
3. The GPA from all courses attempted in the major must be at least 2.0.
4. Can count individual coursework in CS, ECE, or IT toward the degree if at least a C (2.0) is earned.
5. Can transfer individual coursework in CS, ECE, or IT toward the degree if the student received at least a C (2.0), and the coursework is from an ABET-accredited degree program in either computing or engineering or if the coursework is part of a transfer articulation agreement.
6. Thirty (30) credit hours of course work must be taken at UMKC.
7. Participation in University-sponsored assessment tests is a prerequisite for graduation; a degree completion survey and exit interview may also be required.

Students who have completed 90 hours of credits should file an application for graduation and make an appointment for a degree check. Appointments may be made by calling (816) 235-1193. Students who are pursuing a second undergraduate degree or a second major must complete a minimum of 30 additional credit hours from UMKC, of which a minimum of 12 credit hours are from junior/senior level courses.

Graduate Degrees:

- Master of Science in Computer Science (p. 871)
- BS/MS Computer Science Program (p. 862)
- Master of Science in Electrical Engineering (p. 877)
- BS/MS Electrical Engineering Program (p. 869)
- Doctoral Studies in Computer Science or Electrical Engineering

Graduate Academic Regulations

For smooth completion of the degree program, a student must follow various academic regulations as described below. Should a student want to switch from the MS in CS program to the MS in EE program (or vice versa), then the student needs to petition the graduate committee to have the record evaluated for admissibility. The DICE award status will not be effected. For information on financial aid, DICE awards and graduate assistantships please refer to the SCE Financial Assistance (p. 713) page.

Program of Study

A graduate degree indicates mastery of a coherent program in a chosen field and the ability to engage in creative projects in that specialty. The program of study is vital in assuring the completion of a formal program of study designed to ensure the mastery of specified knowledge and skills.

Forms for the program of study specification may be obtained from the CSEE Department Office. It is required that the program be approved by the student's graduate advisor and the graduate committee chair in the semester in which the student will complete 12 credit hours toward the degree, which is usually during the second semester of enrollment. It is then forwarded to the graduate officer for further approval and handling.

Once a program of study has been approved, it is the student's responsibility to ensure that all curricular requirements and prerequisites are satisfied. If a change in the approved program is needed, a petition must be submitted to the student's advisor who forwards it to the graduate committee for approval. It is not expected that more than four courses will change from the original program of study. If more than four courses are changed, then a new program of study should be filed.

Advising

Initially, the student will be advised by the academic advisor assigned to them during the first semester of enrollment. In order to enroll in any course, the student must have the signature of the advisor. No student can enroll without such a signature. If a student enrolls in a class without their advisor's signature or approval, that class may not count toward graduation requirements. Also see the section "Starting the Program".

In the semester that results in 12 hours of credit toward the master's degree, students should decide between a thesis option and a non-thesis option. If students decide on a non-thesis option, they should consult with their advisor and submit a plan of study for approval. If students decide on a thesis
option, they should seek a thesis advisor, who then also becomes the academic advisor. The thesis advisor must be a full member of the graduate faculty and, in collaboration with the student, will then appoint two other graduate or associate graduate faculty members to be on the student’s thesis committee. The thesis committee may consist of more than three members, but the majority of committee members must have full graduate faculty status. Again, a plan of study must be submitted for approval.

**Academic Loads**
A graduate student enrolled in the fall or spring semester in nine or more credit hours is considered full time. A graduate student enrolled in the summer semester in five or more credit hours is considered full time. Any student enrolled in less than the above number of hours is considered part time. A student who is enrolled for six credit hours during a regular semester may be considered full time if the student has at least a quarter-time graduate assistantship. A student’s academic load may be restricted as deemed fit by the student’s graduate advisor or the CSEE master’s committee.

International students will be required to take an English Proficiency Test administered by the International Student Affairs Office. Performance on the test may result in the requirement that the student take one or more English language courses during the first semester.

Students holding graduate assistantships should take a minimum of six credit hours during each of the fall and spring semesters and a minimum of three credit hours during the summer session. However, GA/GTA/GRAs who have completed all coursework and who are working on research need to enroll in only one credit hour. International students must abide by the requirements of the U.S. Immigration Service and should consult the International Student Affairs Office (http://www.umkc.edu/isao) regarding this matter.

**Enrollment Policies**
To remain in good standing, the student must enroll for at least one semester during each calendar year until all the courses in the program of study are completed. After this time, the student must be continuously enrolled each fall and spring semester until the degree is awarded. The student must be enrolled in the semester in which the degree will be received. Students working as graduate assistants during the summer must be enrolled during the summer semester. Failure to follow the above policies will result in a need to apply for new admission to the program under the degree requirements in effect at the time of re-admission.

**Academic Standing**
The student must maintain at least a 3.0 GPA every semester. Deficiency courses, if any, must be passed with a B (3.0) or higher. A 400-level course in which the student receives a grade lower than B (3.0) can not be used to satisfy the degree requirements. Similarly, a 5000-level course in which the student receives a grade lower than C (2.0) can not be used to satisfy the degree requirements. However, all grades for courses taken for graduate credit shall be used in the calculation of the current GPA. No more than one grade below B (3.0) in a course taken for graduate credit can be applied toward the degree. If a student receives three grades below B (3.0) in courses taken for graduate credit or taken to fulfill a deficiency requirement, or if a student receives a grade below C (2.0) in a course taken for graduate credit or taken to fulfill a deficiency requirement, then the student will be ineligible to enroll.

**Academic Dishonesty**
A student enrolling in any UMKC course is expected to exhibit high standards of academic honesty in all works, and are expected to refrain from cheating and plagiarism. Rules governing any suspected violation are clearly spelled out elsewhere in the UMKC catalog (http://www.umkc.edu/umkc/catalog/html/append/policy/0040.html). Instructors are obligated to report any cases of alleged academic dishonesty, and any violation will result in sanctions being imposed on the student, ranging from a warning, probation, loss of financial aid, loss of privileges, suspension, and dismissal. Please note that both receiving and giving unauthorized assistance is considered academically dishonest.

**Petitions**
Any exception to academic policy and regulations or to the degree requirements (e.g. deficiency waiver) must be requested through a written petition. The petition form is available from the CSEE Department Office and on the Web; the completed petition which includes an explanation for the petition should be submitted to the CSEE Department Office. The degree program coordinator or his/her designee will review petitions and communicate the result to the student. It is important that the petition include any necessary documents as attachments for a timely decision.

**Ineligibility**
Ineligible students may petition the CSEE graduate committee to be re-enrolled. Such petitions will be reviewed by the graduate committee whose ruling is final. An ineligible student will only be approved for further graduate study under the terms of a restrictive probation in the form of a written contract between the student and the CSEE department. The CSEE department may render a student ineligible regardless of the student’s GPA. Such procedures are rare and will involve a recommendation to the dean of the School of Graduate Studies.

**Auditing a Course**
A graduate student should not take a course for audit if that student plans to take the course for credit. Once a course has been audited by a student, the student cannot take the course for credit later in the program.

A graduate student cannot change a course to audit after the eighth week of the fall and spring semesters or after the fourth week of the summer semester. Changes to audit status must have the permission of the course instructor, as well as be within the allowable period.
Computer Science Courses

COMP-SCI 100 Computer Fundamentals and Applications Credits: 3
The course covers essential computer concepts and skills. The emphasis is on using the computer as a tool to enhance productivity. Topics include basic computer concepts such as what to look for when buying a computer and how to avoid hackers and viruses when operating one. Students will also learn how to create word processing, spreadsheet, database, and presentation documents using the Microsoft Office suite of applications. The course prepares students to succeed in both college and business by enabling them to write reports, analyze and chart data, prepare presentations and organize large data sets.

Prerequisites: MATH 110 (or equivalent).

COMP-SCI 101 Problem Solving and Programming I Credits: 3
Problem solving, algorithms, and program design. Use of structured programming, lists, control structures, recursion, objects and files in Python. Introduction to graphical interface programming. Coding, testing and debugging using a modern development environment.

Prerequisites: MATH 110 or higher, ALEKS score of 51 or higher.

Co-requisites: COMP-SCI 101L.

COMP-SCI 111 Introduction to Computing Credits: 3
This course provides a broad and general introduction to the computing fields underlying computer science, information technology and computer engineering and its impact on humanity and society. It introduces important concepts of the field, including hardware, software, communications networks, algorithmic processes, information representation, and programming. The course is not programming oriented, but some light programming might be required. The course also introduces academic skills and strategies for success as a student and in a professional career.

COMP-SCI 190 Special Topics Credits: 1-3
Selected introductory topics in the area of computing. May be repeated for credit when topic varies.

COMP-SCI 190A Special Topics Credits: 1-3
Selected introductory topics in the area of computing. May be repeated for credit when topic varies.

COMP-SCI 191 Discrete Structures I Credits: 3
Mathematical logic, sets, relations, functions, mathematical induction, algebraic structures with emphasis on computing applications.

Prerequisites: MATH 110 or higher, ALEKS score of 51 or higher.

COMP-SCI 201L Problem Solving and Programming II - Lab Credit: 1
Programming exercises and demonstrations to reinforce concepts learned in COMP-SCI 201R and provide additional practice in C++ programming.

Prerequisites: COMP-SCI 101, COMP-SCI 191.

Co-requisites: COMP-SCI 201R.

COMP-SCI 201R Problem Solving and Programming II Credits: 3
Problem solving and programming using classes and objects. Algorithm efficiency, abstract data types, searching and sorting, templates, pointers, linked lists, stacks and queues implemented in C++.

Prerequisites: COMP-SCI 101, COMP-SCI 191.

Co-requisites: COMP-SCI 201L.

COMP-SCI 281R Introduction to Computer Architecture and Organization Credits: 3
Digital Logic and Data Representation, process architecture and instruction sequencing, memory hierarchy and bus-interfaces and functional organization.

Prerequisites: COMP-SCI 101, COMP-SCI 191.

COMP-SCI 282 Assembly Language Programming Credits: 3
Use of an assembly language for a virtual machine, internal representation of data and instructions, the assembly process, linking, loading and program relocation and execution. I/O, exception handling, alternative architectures.

Prerequisites: COMP-SCI 201R, COMP-SCI 281R.

COMP-SCI 290 Special Topics Credits: 1-3
Selected intermediate topics in the area of computing. May be repeated for credit when topic varies.

COMP-SCI 291 Discrete Structures II Credits: 3

Prerequisites: COMP-SCI 191.
COMP-SCI 303 Data Structures Credits: 3
Linear and hierarchical data structures, including stacks, queues, lists, trees, priority queues, advanced tree structures, hashing tables, dictionaries and disjoint-set. Abstractions and strategies for efficient implementations will be discussed. Linear and hierarchical algorithms will be studied as well as recursion and various searching and sorting algorithms. Programming concepts include Object Orientation, concurrency and parallel programming. Several in-depth projects in C++ will be required.
Prerequisites: COMP-SCI 191, COMP-SCI 201R, and COMP-SCI 201L.

COMP-SCI 304WI Ethics and Professionalism Credits: 3
Societal and ethical obligations of computer science, information technology, and electrical/computer engineering practice. Topics include obligations of professional practice, electronic privacy, intellectual property, ethical issues in networking, computer security, computer reliability, and whistleblowing.
Prerequisites: ENGLISH 225 (or equivalent), RooWriter.

COMP-SCI 349 Java Programming with Applications Credits: 3
The course covers the syntax and semantics of the Java programming language along with the use of essential class libraries. These topics will be taught in the context of application development. Students will learn how to write small to medium sized Java applications and applets. Specific topics covered include: essential classes in the Java API, interfaces, inheritance, exceptions, graphical user interface components, layout managers, events, I/O classes, Applets, data base access, and multithreading. Other topics will be covered as time permits.
Prerequisites: COMP-SCI 303.

COMP-SCI 352 Data Structures and Algorithms Credits: 3
Abstract data structures and analysis of associated algorithms, abstractions as separate from implementation. Structures include lists, trees, priority queues, advanced tree structures, hashing tables, and graphs. Comparison of efficiency of algorithms as implemented with various data structures. Advanced searching and sorting algorithms, shortest paths, spanning tree and flow algorithms. Introduction to the basic concepts of NP-complete problems.
Prerequisites: COMP-SCI 201R (or E&C-ENGR 216 for EC-ENGR students), COMP-SCI 291, MATH 210.

COMP-SCI 371 Database Design, Implementation and Validation Credits: 3
This course discusses in detail all aspects of ORACLE database management systems. It covers in detail database design, implementation, and validation using ORACLE. In addition to these, it briefly covers ORACLE implementation, tuning, and implementation. The course is suitable for undergraduates and professionals alike.
Prerequisites: COMP-SCI 303 (or COMP-SCI 352).

COMP-SCI 390 Special Topics Credits: 1-3
Selected topics in the area of computing at the junior level. May be repeated for credit when the topic varies.

COMP-SCI 393 Numerical Analysis and Symbolic Computation Credits: 3
Basic elements of numerical analysis: numerical solution of algebraic equations, solution of linear simultaneous algebraic equations, matrices, eigenvalues and eigenvectors, numerical integration and numerical solution of linear differential equations. Use of a symbolic manipulator on both symbolic and numerical computation, applied to the above listed basic elements of numerical analysis.
Prerequisites: COMP-SCI 201R, COMP-SCI 281R, MATH 250.

COMP-SCI 394R Applied Probability Credits: 3
Basic concepts of probability theory. Counting and measuring. Probability, conditional probability and independence. Discrete, continuous, joint random variables. Functions of random variables. Sums of independent random variables and transform methods. Random number generation and random event generation. Law of large numbers, central limit theorem, inequalities. Their applications to computer science and electrical and computer engineering areas are stressed.
Prerequisites: COMP-SCI 201R and COMP-SCI 201L (or E&C-ENGR 216), MATH 220, and STAT 235 (or E&C-ENGR 241).

COMP-SCI 396 Fundamentals of Communication and Network Security Credits: 3
Techniques learned in this course provide security solutions for a variety of security threats across the spectrum of communications and network applications. This course covers both fundamental cryptology and applications, including conventional encryption, modular arithmetic, data encryption standard, public-key cryptography, RSA, wireless communication security, secure email, Internet payment and secure web applications.
Prerequisites: MATH 300.

COMP-SCI 404 Introduction to Algorithms and Complexity Credits: 3
A rigorous review of asymptotic analysis techniques and algorithms: from design strategy (such as greedy, divide-and-conquer, and dynamic programming) to problem areas (such as searching, sorting, shortest path, spanning trees, transitive closures, and other graph algorithms, string algorithms) arriving at classical algorithms with supporting data structures for efficient implementation. Throughout, the asymptotic complexity is studied in worst case, best case, and average case for time and/or space, using appropriate analysis techniques (recurrence relations, amortization). Introduction to the basic concepts of computability and NP-complete theory.
Prerequisites: COMP-SCI 291, COMP-SCI 303 (or COMP-SCI 352).

COMP-SCI 411 Introduction to Telecommunications Systems Credits: 3
Representation of signals and systems, Fourier Series, Fourier Transform, transmission of signal through linear system, amplitude modulation systems, frequency and pulse modulation systems, sampling, time division multiplexing, digital modulation and noise in modulation systems.
Prerequisites: COMP-SCI 394R, MATH 250.

COMP-SCI 420 Introductory Networking and Applications Credits: 3
This introductory course examines the systems aspects of the different LAN/MAN/WAN models, including topics such as protocols, network operating systems, applications, management and wireless communication systems. It also examines how the different models are interconnected using bridges and routers.
Prerequisites: Senior standing.

COMP-SCI 421A Foundations of Data Networks Credits: 3
This introductory course examines the analytical aspects of data communications and computer networking. Topics cover protocol concepts and performance analysis that arise in physical, data link layer, MAC sub layer, and network layer.
Prerequisites: COMP-SCI 291, COMP-SCI 303, COMP-SCI 394R.

COMP-SCI 423 Client/Server Programming and Applications Credits: 3
Fundamentals of Client/Server programming using socket interface; features of network programming including connection oriented and connectionless communication in multiple environments (Windows, UNIX, and Java); other client/server mechanisms, such as RPC and RMI; and formal object environments designed to facilitate network programming (CORBA, COM and Beans).
Prerequisites: COMP-SCI 352 (or COMP-SCI 303, COMP-SCI 431).

COMP-SCI 424 Software Methods and Tools Credits: 3
This course covers a number of software methods and tools that are widely used in industry. These methods include architecture patterns and styles, software frameworks, unit testing, and version control. The covered software tools include Microsoft Project, IBM Rational Systems Modeler, Eclipse Plug-ins, JUnit, Subversion, and GIT. The course emphasizes practice. Students will use these methods and tools to develop a software system from the initial planning to final deployment.
Prerequisites: COMP-SCI 349.

COMP-SCI 431 Introduction to Operating Systems Credits: 3
This course covers concurrency and control of asynchronous processes, deadlocks, memory management, processor and disk scheduling, x86 assembly language, parallel processing, and file system organization in operating systems.
Prerequisites: COMP-SCI 303, COMP-SCI 281R.

COMP-SCI 441 Programming Languages: Design and Implementation Credits: 3
This course covers programming language paradigms (object-oriented programming, functional programming, declarative programming, and scripting) and design tradeoffs in terms of binding, visibility, scope, lifetime, type-checking and abstraction. It also covers programming language specification, grammar, lexical analysis, exception handling, and runtime considerations.
Prerequisites: COMP-SCI 303.

COMP-SCI 444 Compiler/Translator Design Credits: 3
This course will teach modern compiler techniques applied to both general-purpose and domain-specific languages. The examples chosen will also convey a detailed knowledge of state-of-the art based WWW technology. The fundamental goal of programming is to provide instructions to the computer hardware. The primary purpose of the compiler/translator is to facilitate communication from the programmer via some high level language to ultimately the computer hardware. Understanding how compiler/translators are built and operate is important to understanding efficiency of operation and storage.
Prerequisites: COMP-SCI 303 (or COMP-SCI 352).

COMP-SCI 449 Foundations of Software Engineering Credits: 3
The course introduces concepts of Software Engineering (definitions, context) and the Software Development Process (life cycle). Students will get a solid foundation in Agile methodology, SW requirements, Exceptions and Assertions, Verification and Validation, SW Models and modeling, and User Interface Design. Various SW Architectures will be discussed.
Prerequisites: COMP-SCI 303 (or COMP-SCI 352).

COMP-SCI 451R Software Engineering Capstone Credits: 3
The course will focus on the requirements and project planning and managing of medium sized projects with deliverables of each phase of the software life cycle. Additional studies of software modeling, requirements specifications, configuration management, verification, validation, software evolution and quality and finally measurement, estimation and economics of the software process.
Prerequisites: COMP-SCI 303 (or COMP-SCI 352), COMP-SCI 449.
COMP-SCI 456 Human Computer Interface Credits: 3
Design of human-computer interfaces considering the psychological and physical abilities of the user. User interface design from a functional and ergonomic perspective. Contents organization, visual organization, navigation. Use of graphical interface (GUI) and the development of high quality user interfaces.

**Prerequisites:** COMP-SCI 449.

COMP-SCI 457 Software Architecture: Requirements & Design Credits: 3
Introduction to requirements and design engineering with emphasis on organization and presentation of system requirements and designs for customers, users and engineers; validation of requirements and design with needs of system customer; examination of requirement and design changes during the lifetime of a system; transformation of informal ideas into formal detailed descriptions; examination of the different stages in the design process including architectural design, interface design and data structure design, database design, program and transaction design; examination of domain modeling criteria and examination of design quality attributes. Also discusses non-functional attributes and project resource allocation.

**Prerequisites:** COMP-SCI 303 (or COMP-SCI 352).

COMP-SCI 458 Software Architecture: Testing & Maintenance Credits: 3
Introduction of software system testing (including verification), software process, software reuse, software maintenance, and software re-engineering.

**Prerequisites:** COMP-SCI 303 (or COMP-SCI 352).

COMP-SCI 461 Introduction to Artificial Intelligence Credits: 3
This course provides an overview of the field of artificial intelligence. Topics include guided and unguided search, adversarial search, generation and use of heuristics, logic programming, probabilistic reasoning, and neural networks. Application areas studied include game playing, automated proofs, expert systems, and data mining. Recommended preparation: One or more of COMP-SCI 394R, COMP-SCI 404, or an advanced programming elective.

**Prerequisites:** COMP-SCI 303 or equivalent.

COMP-SCI 464 Applied Artificial Intelligence Credits: 3

**Prerequisites:** COMP-SCI 461.

COMP-SCI 465R Introduction to Statistical Learning Credits: 3
This course provides a practical introduction to analytical techniques used in data science and prepares students for advanced courses in machine learning. Topics covered include multivariate distributions, information theory, linear algebra (eigenanalysis), supervised/unsupervised learning, classification/regression, linear/non-linear learning, introduction to Bayesian learning (Bayes rule, prior, posterior, likelihood), parametric/non-parametric estimation.

**Prerequisites:** COMP-SCI 394R.

COMP-SCI 466R Introduction to Bioinformatics Credits: 3
This course introduces students to the field of Bioinformatics with a focus on understanding the motivation and computer science behind existing Bioinformatic resources, as well as learning the skills to design and implement new ideas.

**Prerequisites:** COMP-SCI 303.

COMP-SCI 470 Introduction to Database Management Systems Credits: 3
This course covers database architecture, data independence, schema, Entity-Relationship (ER) and relational database modeling, relational algebra and calculus, SQL, file organization, relational database design, physical database organization, query processing and optimization, transaction structure and execution, concurrency control mechanisms, database recovery, and database security.

**Prerequisites:** COMP-SCI 303.

**Co-requisites:** COMP-SCI 431.

COMP-SCI 475 Introduction to Computer Graphics Credits: 3
Interactive Computer Graphics, Hardware Interaction, 3D transformations, Shading, Lighting and Texturing.

**Prerequisites:** COMP-SCI 303.

COMP-SCI 490 Special Topics Credits: 1-3
Selected topics in specific areas of computer science. May be repeated for credit when the topic varies.
COMP-SCI 490CI Special Topics Credits: 1-3
COMP-SCI 490CR Special Topics Credits: 1-3
COMP-SCI 490IS Special Topics Credits: 1-3
COMP-SCI 490JU Special Topics Credits: 1-3
COMP-SCI 490MT Special Topics Credits: 1-3
COMP-SCI 490NN Special Topics Credits: 1-3
COMP-SCI 490SA Special Topics Credits: 1-3
COMP-SCI 490SI Special Topics Credits: 1-3
COMP-SCI 490SM Special Topics Credits: 1-3

COMP-SCI 491 Internship Credits: 6
Students may participate in structured internships under the joint supervision of an employer and a faculty member. The student must carry out significant professional responsibilities that also have academic merit. The number of credit hours is based on the quality of the academic experience. Available for credit/no credit only and students must be in good standing with at least 18 credit hours of CS/IT counting towards the degree. Registration by consent number only: petition forms for CS/IT491 Internships are available in the office of CSEE Division and on the web.
Prerequisites: Junior standing.

COMP-SCI 494R Applied Stochastic Models Credits: 3
Review of basic probability including properties of joint random variables and functions of random variables. Discrete and continuous random processes, such as the Poisson process, Brownian motion, and white Gaussian noise. Linear filtering of random processes. Markovian birth and death processes and elementary queuing theory.
Prerequisites: COMP-SCI 394R.

COMP-SCI 497 Directed Readings Credits: 1-3
Readings in an area selected by an undergraduate student in consultation with a faculty member. Arrangements must be made prior to registration.

COMP-SCI 498 Research Seminar Credits: 1-3
Undergraduate research based on intensive readings from the current research literature under the direction of a faculty member. Arrangements must be made prior to registration.

COMP-SCI 499 Undergraduate Research Credits: 1-3
Completion of project, including a final written report, under the direction of a faculty member. A prospectus must be accepted prior to registration.

COMP-SCI 5101 Discrete Structures Review for Graduate Students Credits: 1-3
A review of mathematical logic, sets, relations, functions, mathematical induction, and algebraic structures with emphasis on computing applications. Recurrence relations and their use in the analysis of algorithms. Graphs, trees, and network flow models. Introduction to Finite state machines, grammars, and automata. Students must have completed College Algebra before taking this course.

COMP-SCI 5102 Operating Systems Review for Graduate Students Credits: 1-3
This course covers concurrency and control of asynchronous processes, deadlocks, memory management, processor and disk scheduling, parallel processing, and file system organization in operating systems.
Prerequisites: Data Structures, Computer Architecture.

COMP-SCI 5103 Advanced Data Structures and Analysis of Algorithms Review for Graduate Students Credits: 1-3
A review of linear and hierarchical data structures, including stacks, queues, lists, trees, priority queues, advanced tree structures, hashing tables, dictionaries and disjoint-sets. Asymptotic analysis techniques and algorithms: from design strategy (such as greedy, divide-and-conquer, and dynamic programming) to problem areas (such as searching, sorting, shortest path, spanning trees, transitive closures, graph algorithms, and string algorithms) arriving at classical algorithms with efficient implementation. Introduction to the basic concepts of complexity theory and NP-complete theory. Students must have taken courses in Linear Algebra, Discrete Structures, Data Structures, and Applied Probability before taking this course.

COMP-SCI 5510 Information Theory Credits: 3
Representation, transmission and transformation of information, information compression and protection, generation, storage, processing and transmission of information.
Prerequisites: BS in Computer Science, Engineering, or Mathematics.

COMP-SCI 5511 Advanced Telecommunications Networks Credits: 3
Efficient source coding and channel coding techniques, principles of switching, digital transmission over microwave, copper and optical media, T-carrier and SONET systems, traffic consideration in telecommunications networks, network synchronization, control and management, ATM concepts.
Prerequisites: COMP-SCI 394R, COMP-SCI 411.
COMP-SCI 5513 Digital Cellular Communications Credits: 3  
Principles of microwave communications, performance metrics, mobile communications and cellular topology, co-channel and adjacent channel interference, fading and shadowing, various types of diversity, TDMA, FDMA and CDMA and other techniques for channel assignment, cellular network architectures, design considerations, PCN concepts.  
Prerequisites: COMP-SCI 411.

COMP-SCI 5514 Optical Fiber Communications Credits: 3  
Fiber optic cable and its characteristics, optical sources and transmitters, optical detectors and receivers, optical components such as couplers and connectors, WDM and OFDM techniques, modulation and transmission of information over optical fibers, design of optical networks, single and multihop fiber LANs, optical carrier systems.  
Prerequisites: COMP-SCI 411.

COMP-SCI 5514A Optical Networking Credits: 3  
Components of optical networks such as OADM, OXC, optical switches, DWDM, and their functions and interactions. Design, analysis and routing over all-optical networks to include wavelength and lightpath routing.  
Prerequisites: COMP-SCI 411.

COMP-SCI 5517 Digital Switching: Techniques and Architectures Credits: 3  
Integration of transmission and switching, single and multistage switching principles, space and time division switching, conventional switch architectures such as 4ESS, integration of circuit and packet switching, ATM switching and design considerations, ATM switch architectures, evaluation and comparison, future trends.  
Prerequisites: COMP-SCI 394R, COMP-SCI 411.

COMP-SCI 5520 Network Architecture I Credits: 3  
Principles, protocols, and architectures of data networks, internetworking, routing, layering, and addressing, with specific investigation of the Internet Protocol (IP), Mobile IP, Multiprotocol Label Switching (MPLS), IP over Asynchronous Transfer Mode (ATM) networks, and virtual private networks.  
Prerequisites: COMP-SCI 420 (or COMP-SCI 421A), COMP-SCI 431.

COMP-SCI 5521 Network Architecture II Credits: 3  
Principles, protocols and architectural issues of computer networks for transport layer and above, with specific emphasis on TCP/IP for best-effort services as well as for emerging multi-media services.  
Prerequisites: COMP-SCI 5520.

COMP-SCI 5522 Computer Network Design and Analysis Credits: 3  
Topological design, capacity and flow assignment problem-modeling and algorithms, and their analysis, issues in network control.  
Prerequisites: COMP-SCI 303, COMP-SCI 394R, COMP-SCI 421A.

COMP-SCI 5523 Capacity Planning for Service-Oriented Architectures Credits: 3  
Web site, cloud service, and data center administrators are faced with the task of adequately sizing their Information Technology (IT) infrastructure so that they can provide quality of service required by users at an affordable cost. In this class we will explore the Internet’s complex relationships and how these relationships impact performance and availability of Web and cloud services. The fundamentals of service oriented architectures will be presented and we will develop performance models based on probability fundamentals and the theory of queuing networks and apply these models toward the design and analysis of large scale information systems.  
Prerequisites: COMP-SCI 394R, COMP-SCI 421A.

COMP-SCI 5524 Protocol Design Credits: 3  
Protocols as formal algorithms, architectural definition, protocol specification languages and models and their translation to implementation languages, overview of verification methods, symbolic execution.  
Prerequisites: COMP-SCI 421A.

COMP-SCI 5525 Cloud Computing Credits: 3  
Cloud computing systems operate in a very large scale, and are impacting the economics and the assumptions behind computing significantly. This special topics course provides a comprehensive overview of the key technical concepts and issues behind cloud computing systems such as compute, storage and network resource virtualization and management. We will cover a range of topics of cloud computing including: Cloud system architectures and taxonomy, Computing virtualization techniques, Virtual machine resource management, Data center networking issues, Big data transfer protocols and management, Large scale distributed file system examples (Google File System), Cloud programming.  
Prerequisites: CSEE 5110, COMP-SCI 431.

COMP-SCI 5526 Network Routing Credits: 3  
Algorithms, protocols and analysis for network routing. Routing in different networks such as circuit-switched networks, Internet, broadband networks, and transmission networks are covered.  
Prerequisites: COMP-SCI 5520, COMP-SCI 5522.
COMP-SCI 5528 Local Area Networks: Analysis and Design Credits: 3
Definition of local area networks (LAN), LAN architecture and protocols, topology, transmission media, channel access protocols, modeling, simulation and performance evaluation of LANs, considerations in design and implementation, examples.
Prerequisites: COMP-SCI 421A, COMP-SCI 494R.

COMP-SCI 5531 Advanced Operating Systems Credits: 3
Components of an operating system, scheduling/routing mechanisms, process control blocks, design and test various operating system components.
Prerequisites: COMP-SCI 431.

COMP-SCI 5532 Discrete Event Simulation Credits: 3
Review of statistical distributions, generation of pseudorandom variates and stochastic processes, basic queueing systems such as M/M/m and Jackson Networks, simulation project.
Prerequisites: COMP-SCI 5594.

COMP-SCI 5540 Principles of Big Data Management Credits: 3
This course will introduce the essential characteristics of Big Data and why it demands rethinking how we store, process, and manage massive amounts of structured and unstructured data. It will cover the core technical challenges in Big Data management i.e., the storage, retrieval, and analysis of Big Data. It will emphasize on fundamental concepts, analytical skills, critical thinking, and software skills necessary for solving real-world Big Data problems. Tools such as Apache Hadoop, Pig, Hive, HBase, and Apache Spark will be covered. Extensive reading of research papers and in-class presentations will be heavily emphasized in this class.
Prerequisites: COMP-SCI 431 (or equivalent) and COMP-SCI 470 (or equivalent).

COMP-SCI 5542 Big Data Analytics and Applications Credits: 3
Big Data analytics focus on analyzing large amounts of data to find useful information and to make use of the information for better business decisions. This course introduces students to the practice and potential of big data analytics and applications. In this course, students will have hands-on experience with Big Data technologies (Hadoop and its ecosystems) and tools (Cloudera, RMahout, HBase) for the analysis of large data sets across clustered systems. Students will learn how to develop highly interactive applications for business intelligence.
Prerequisites: Software Engineering (COMP-SCI 451).

COMP-SCI 5543 Real-time Big Data Analytics Credits: 3
This course teaches students fundamental theory and practice in the field of big data analytics and real time distributed systems for real time big data applications. In this course, students will have hands-on experience for the development of real-time applications with various tools such as Twitter’s Storm, Apache Flume, Apache Kafka for real time analysis of stream data such as twitter messages and Instagram images.
Prerequisites: Software Engineering (COMP-SCI 451).

COMP-SCI 5551 Advanced Software Engineering Credits: 3
Current concepts in software architecture and design, comparative analysis for design, object-oriented software design, software quality criteria for evaluation of software design. Introduction to metrics, project management and managerial ethics.
Prerequisites: COMP-SCI 451R.

COMP-SCI 5552 Advanced Data Structures Credits: 3
Formal modeling including specification and deviation of abstract data types, completeness issues in the design of data types and data structures, implementation of data structures from a formal data type specification, verification of abstract to concrete data mapping.
Prerequisites: COMP-SCI 291, COMP-SCI 303.

COMP-SCI 5552A Formal Software Specification Credits: 3
Formal modeling including specification and deviation of abstract data types, completeness issues in the design of data types and data structures, implementation of data structures from a formal data type specification, verification of abstract to concrete data mapping.
Prerequisites: COMP-SCI 291, COMP-SCI 303.

COMP-SCI 5553 Software Architecture and Design Credits: 3
The course introduces a number of basic concepts and enabling technologies of software architecture, including architecture styles, architecture description languages, architecture-implementation mapping, and product line architectures. It also covers some advanced topics, such as the REST architecture style and Web Services. Students will read research papers, analyze the existing results, write critiques, give presentations, and exercise the research results with real examples. In addition, students will have an opportunity to work in groups and study the architecture of some real software systems.
Prerequisites: COMP-SCI 451R or equivalent.

COMP-SCI 5554 Software Tools and Programming Environments Credits: 3
Taxonomy of software tools and environments, generic software tool architecture, interface techniques for users, intra-system and stand-alone systems, integration of heterogeneous systems components.
Prerequisites: COMP-SCI 451R.
COMP-SCI 5555 Software Methods and Tools Credits: 3
Software methods and tools are extensively used in current software production to improve software productivity and quality. In this course, we are going to learn a number of popular software methods and tools being used in industry. These methods include object-oriented design and analysis (e.g. UML, design patterns), architecture styles, code generation, and unit testing. The covered software tools include Microsoft Project, IBM Rational Systems Developer, Eclipse Plug-ins, Emacs, JUnit, Subversion, and GIT. The course emphasizes practice, and students will be using these methods and tools to develop a software system, from the initial planning to the final deployment.

Prerequisites: COMP-SCI 349.

COMP-SCI 5556 Human Factors in Computer Systems Credits: 3
Design of "user friendly" man-machine interface, survey of recent psychological studies in man-machine interaction, user interface design, instrumentation and testing, analytic models of man-machine interaction.

Prerequisites: COMP-SCI 451R.

COMP-SCI 5560 Knowledge Discovery and Management Credits: 3
This course teaches students fundamental theory and practice in the field of knowledge discovery and management and also provides them with hands-on experience through application development.

Prerequisites: COMP-SCI 5551, COMP-SCI 461 (or COMP-SCI 464).

COMP-SCI 5561 Advanced Artificial Intelligence Credits: 3
AI systems and their languages, implementations and applications, case studies of various expert systems, current research topics in AI, logic programming using PROLOG.

Prerequisites: COMP-SCI 461.

COMP-SCI 5564 Inference Techniques and Knowledge Representation Credits: 3
Inference Techniques is an in-depth course of logic and automatic theorem proving, intended for Computer Science graduate students, with particular importance to those students interested in Artificial Intelligence. The main areas of study will be concerned with the principals and techniques used for automatic theorem proving. An overview of the representation of knowledge and logic, a detailed appreciation of theorem proving methods, and implementation techniques will be provided in the course. The course will provide background for further study in varying fields of A.I.

Prerequisites: COMP-SCI 461.

COMP-SCI 5565 Introduction to Statistical Learning Credits: 3
Introduction to Machine Learning; Multivariate Distributions; Information Theory; Linear Algebra (Eigenanalysis); Supervised/Unsupervised Learning, Classification/Regression; Linear/Non-linear Learning; Introduction to Bayesian Learning (Bayes rule, Prior, Posterior, Maximum Likelihood); Parametric/Non-parametric Estimation.

Prerequisites: Required - Applied Probability (COMP-SCI 394R). Recommended - Linear Algebra (MATH 300); Familiarity with MATLAB or R. OR Consent of instructor.

Cross Listings: COMP-SCI 465R.

COMP-SCI 5566 Introduction to Bioinformatics Credits: 3
This course introduces students to the field of Bioinformatics with a focus on understanding the motivation and computer science behind existing Bioinformatic resources, as well as learning the skills to design and implement new ideas.

Prerequisites: COMP-SCI 303, a course or background in Biology (Genomics or Meta Models preferred).

COMP-SCI 5567 Machine Learning for Data Scientists Credits: 3
This course teaches the theoretical basis of methods for learning from data, illustrated by examples of applications to several domains. Recommended preparation: COMP-SCI 5565.

Prerequisites: COMP-SCI 303,COMP-SCI 394R, COMP-SCI 330.

COMP-SCI 5568 Fundamentals of Probabilistic Graphical Models Credits: 3
Many real world systems are probabilistic in nature. Probability theory gives us the basic tools for modeling many real world systems, allowing us to understand complex behavior. Probabilistic graphical models allow us to model complex probabilistic relationships using graphs. This framework, which spans methods such as Bayesian networks and Markov networks, allows us to manipulate complex probability distributions that often involve hundreds or even many thousands of variables. These methods have been used for an enormous range of applications, which include: web search, turbo coding, robot navigation, image identification, epidemic identification in complex networks, medical diagnosis and speech recognition.

Prerequisites: COMP-SCI 303, COMP-SCI 394R, COMP-SCI 330, Recommended COMP-SCI 5565.

COMP-SCI 5570 Architecture of Database Management Systems Credits: 3
Covers in detail, architecture of centralized database systems, database processing, management of concurrent transactions, query processing, query optimization, data models, database recovery, datawarehousing, workflow, World Wide Web and Database performance, and reviews the architecture of some commercial centralized database systems.

Prerequisites: COMP-SCI 431, COMP-SCI 470.
COMP-SCI 5571 Distributed Database Management Systems Credits: 3
Detailed study of distributed database systems architecture, in-depth study of distributed transaction management, distributed concurrency control and recovery algorithms, database distribution, distributed query optimization and analysis of database system design, and intelligent network databases.
**Prerequisites:** COMP-SCI 5570.

COMP-SCI 5572 Mobile Computing Credits: 3
This course covers in detail the architecture of mobile and wireless network. It discusses and develops revealing concepts and algorithms for building mobile database systems (MDS), which is necessary for managing information on the air and E-commerce.
**Prerequisites:** COMP-SCI 5570.

COMP-SCI 5573 Information Security and Assurance Credits: 3
This course deals with information security and assurance and covers the concepts necessary to secure the cyberspace. It introduces security models, assurance policies, security policies and procedures, and technology. It enables students to understand the need for information assurance, identify security vulnerabilities, and devise security solutions that meaningfully raise the level of confidence in computer systems. It teaches students how to design secured database and computer systems.
**Prerequisites:** COMP-SCI 5570.

COMP-SCI 5574 Large Scale Semistructured Data Management Credits: 3
This course will cover topics related to managing large scale semistructured data modeled using the Extensible Markup Language XML and the Resource Description Framework (RDF). This will include storing XML (e.g. natively, using a relational database), indexing XML (e.g. numbering schemes, structural indexes, sequencing paradigms), XML query processing algorithms (e.g. join-based, subsequence-based), RDF DATA STORAGE (e.g. triple stores, graph stores), RDF indexing and SPARQL query processing algorithms. The course will also cover emerging many core processor architectures (e.g. Intel Single-chip Cloud Computer) and the opportunities they provide for building next-generation semistructured data management solutions. Extensive reading of research papers and in-class presentations will be a core part of this class. Grades will be based on in-class presentations of research papers, exams, and a research project (to be done in groups).
**Prerequisites:** COMP-SCI 470 (or equivalent).

COMP-SCI 5575 Advanced Computer Graphics Credits: 3
Review of transformations, 3D viewing, curve fitting in 3D, generation of surfaces, hidden surface elimination, scan-line coherence, rigid solid representation, shading, color theory.
**Prerequisites:** COMP-SCI 475.

COMP-SCI 5581 Parallel Computer Architecture I Credits: 3
Parallelism in computer architecture, pipelined processors, array processors and multi-processor systems, algorithms for SISD, SIMD, MISP and MIMD organizations, vectorization, pipelining algorithms.

COMP-SCI 5590 Special Topics Credits: 1-3
Selected topics in specific areas of computer science. May be repeated for credit when the topic varies.

COMP-SCI 5590AW Special Topics Credits: 1-3
COMP-SCI 5590BD Special Topics Credits: 1-3
COMP-SCI 5590CC Special Topics In Computer Science Credits: 1-3
COMP-SCI 5590CI Special Topics Credits: 1-3
COMP-SCI 5590CN Special Topics Credits: 1-3
COMP-SCI 5590HI Special Topics Credits: 1-3
COMP-SCI 5590MT Special Topics Credits: 1-3
COMP-SCI 5590NN Special Topics Credits: 1-3
Selected topics in specific areas of computer science. May be repeated for credit when the topic varies.

COMP-SCI 5590OS Special Topics Credits: 1-3
COMP-SCI 5590PB Special Topics Credits: 1-3
Special Topics
COMP-SCI 5590PG Special Topics In Computer Science Credits: 1-3

COMP-SCI 5590SA Special Topics In Computer Science Credits: 1-3

COMP-SCI 5590WW Special Topics Credits: 1-3

COMP-SCI 5590WX Special Topics Credits: 1-3

COMP-SCI 5590XX Special Topics Credits: 1-3

COMP-SCI 5590YL Special Topics Credits: 1-3

COMP-SCI 5591 Concurrency Models Credits: 3
Concurrency control constructs, P/V primitives, cobegin/coend, monitors, message transmission, rendezvous systems, underlying mathematics of concurrent systems, Petri Nets, liveness (deadlock), reachability, boundedness, invariants, system modeling.

Prerequisites: COMP-SCI 431.

COMP-SCI 5592 Design and Analysis of Algorithms Credits: 3
Combinatorial analysis, searching and sorting, shortest path algorithms, spanning trees, search and traversal techniques, backtracking, branch and bound, heuristics, algebraic simplification and transformation.

Prerequisites: COMP-SCI 303 and COMP-SCI 404.

COMP-SCI 5594 Introduction to Queuing Theory Credits: 3
Review of statistics and probability, stochastic processes, Markov Processes, the basic Poisson process, equilibrium conditions, M/M/1 system with variations local and global balance in networks of queues, open and closed networks.

Prerequisites: COMP-SCI 494R.

COMP-SCI 5595 Mathematical Foundations of Computer Science Credits: 3
Study of the theory, and algorithmic techniques, of the fields of graph theory, combinatorics and number theory, as they relate to their application in the field of computer science.

Prerequisites: COMP-SCI 303, COMP-SCI 494R.

COMP-SCI 5596A Computer Security I: Cryptology Credits: 3
Study of theory, and algorithmic techniques, of the fields of number theory and cryptology, as they are applied in the general area of computer and network security.

Prerequisites: COMP-SCI 291.

COMP-SCI 5596B Computer Security II: Applications Credits: 3
Application of the algorithmic techniques learned in COMP-SCI 5596A to provide suitable security countermeasures to the variety of security threats across the spectrum of computing.

Prerequisites: COMP-SCI 5596A.

COMP-SCI 5597 Directed Readings Credits: 1-3
Readings in an area selected by the graduate student in consultation with a faculty member. Arrangements must be made prior to registration.

COMP-SCI 5598 Research Seminar Credits: 1-3
Graduate research based on intensive readings from the current research literature under the direction of a faculty member. Arrangements must be made prior to registration.

COMP-SCI 5599 Research and Thesis Credits: 1-6
A project investigation leading to a thesis, or written report under the direction of a faculty member. A prospectus must be accepted prior to registration.

COMP-SCI 5622 Advanced Network Analysis Credits: 3
Design and analysis of data networks, comparative analysis of capacity and flow strategies, time-delay/cost trade offs, concentration and buffering in store and forward networks, random access techniques, pure, slotted and reservation type Aloha schemes, carrier sense multiple access.

Prerequisites: COMP-SCI 5522.

COMP-SCI 5623 Network Simulation and Modeling Credits: 3
Simulation and modeling of network topologies and protocols, evaluation of the physical layer, data-link layer, network layer routing algorithms, local and long-haul networks.

Prerequisites: COMP-SCI 5522, COMP-SCI 5532.

COMP-SCI 5651 Distributed Computing for Software Systems Credits: 3
Formal descriptions of problems encountered in distributed computing for architecture. Parameters to formal requirements, operating system support, communications support, process synchronization, and system verification, distinctions between real time and concurrent time. The nature of life cycles, project organization and use of automated tools.

Prerequisites: COMP-SCI 5531 (or COMP-SCI 5551 or COMP-SCI 5570).
COMP-SCI 5690 Advanced Special Topics Credits: 1-3
A lecture course presenting advanced research level topics. This course is intended to allow faculty and visiting scholars to offer special courses in selected research areas.
Prerequisites: Ph.D. Candidacy.

COMP-SCI 5690ND Advanced Special Topics Credits: 1-3

COMP-SCI 5694 Advanced Queueing Theory Credits: 3
Non-Markovian systems such as M/G/1, G/M/1 and G/G/1, solutions of networks of non-Markovian nodes, queuing network approximate solution techniques.
Prerequisites: COMP-SCI 5594.

COMP-SCI 5697 Directed Readings Credits: 1-3
Readings in an area selected by the doctoral student in consultation with a doctoral faculty member. Arrangements must be made prior to registration.

COMP-SCI 5698 Advanced Research Seminar Credits: 1-3
Advanced research by a group of doctoral students based on intensive readings from the current research literature under the direction of one or more doctoral faculty. Original research results of each student are exchanged by presentations and group discussion. Arrangements must be made prior to registration.

COMP-SCI 5699A Research And Dissertation Research In Computer Science Credits: 1-12
Doctoral research in computer science.

COMP-SCI 5899 Required Grad Enrollment Credit: 1

Computer Sci Electrical Engr Courses

CSEE 5110 Network Architecture I Credits: 3
This course provides an introduction to fundamental concepts and principles in the design and implementation of computer communication networks, their protocols, and architectures. Topics to be covered include: layering, and addressing, naming, routing, internetworking, Internet protocols, reliable transfer, congestion control, link control, multiple media access, and network measurement and management.
Prerequisites: COMP-SCI 421A, COMP-SCI 431.

CSEE 5111 Network Architecture II Credits: 3
In this course, advanced principles, protocols, and architectures of computer networks will be studied with specific emphasis on emerging technologies. The focus will be on the latest networking protocol designs with particular attention to the TCP/IP and application layers.
Prerequisites: CSEE 5110.

CSEE 5112 Computer Network Design and Analysis Credits: 3
This course provides an introduction to analytic and simulation modeling of computer networks and network topological design. Topics covered include the analysis of delay and loss systems, topological optimization, network dimensioning, and routing coupled with analysis techniques for network planning and design.
Prerequisites: COMP-SCI 394R, COMP-SCI 421A.

CSEE 5113 Network Routing Credits: 3
Algorithms, protocols and analysis for network routing. Routing in different networks such as circuit-switched networks, Internet, broadband networks, and transmission networks are covered.
Prerequisites: CSEE 5110, CSEE 5112.

CSEE 5130 Queuing Theory and Applications Credits: 3
This course introduces the queuing models and theory to analyze performance of computing and engineering systems in terms of delay, blocking, and buffer utilization. Both continuous and discrete time models are covered, including variations of M/M/1, M/G/1 and GI/M/1 systems using quasi birth-and-death models and matrix analytic techniques. It also covers networks that can be analyzed with product form technique. Probabilistic reasoning and intuitive understanding is stressed.
Prerequisites: COMP-SCI 394R and MATH 300.

CSEE 5590 Special Topics Credits: 1-3
This course is intended to allow faculty and visiting scholars to offer special courses in selected topics.

CSEE 5690 Advanced Special Topics Credits: 1-3
A lecture course presenting advanced research level topics. This course is intended to allow faculty and visiting scholars to offer special courses in selected research areas.

CSEE 5697 Directed Readings Credits: 1-3
Readings in an area selected by the doctoral student in consultation with a doctoral faculty member. Arrangements must be made prior to registration.

CSEE 5699 Research and Dissertation Research in Telecommunications and Computer Networking Credits: 1-12
Doctoral Research in Telecommunications and Computer Networking.
CSEE 5899 Required Graduate Enrollment Credit: 1
Required Graduate Enrollment.

**Electrical Computer Engr Courses**

E&C-ENGR 130 Engineering Graphics Credits: 3
Introduction to Engineering Graphics with the use of the Computer Aided Design tools AutoCAD and SolidWorks. Introduction to 2D design with AutoCAD and introduction to 3D design with SolidWorks. Also an introduction to electrical circuit diagrams. No previous 2D or 3D CAD experience is necessary to take this class.

E&C-ENGR 216 Engineering Computation Credits: 4
Development, analysis and synthesis of structured computer programs for solving engineering problems in the Python, MATLAB, and C languages. Introduction to algorithms and data structures.
**Prerequisites:** MATH 110.

E&C-ENGR 217 Engineering Computation Credits: 2
Students learn to develop, analyze and synthesize structured computer programs for solving engineering problems in the Python, MATLAB, and C languages. This course also provides an introduction to algorithms and data structures. This course is available by approval of the degree program committee if transfer credit has been approved for one of the listed programming languages.
**Prerequisites:** MATH 110.

E&C-ENGR 226 Logic Design Credits: 3
Design of combinational logic circuits, logic minimization techniques, design of sequential logic circuits, state machine design techniques, digital system design.
**Co-requisites:** E&C-ENGR 227.

E&C-ENGR 227 Logic Design Laboratory Credit: 1
Laboratory for E&C-ENGR 226. Experimental topics related to the design of combinational and sequential logic systems and small digital systems.
**Co-requisites:** E&C-ENGR 226.

E&C-ENGR 228 Introduction to Computer Design Credits: 3
This course covers computer organizations and fundamental computer design techniques. It also discusses design of computer data unit, control unit, input-output, microprogramming. Memory systems (RAM memory, Cache memory, interrupts, secondary memory) and direct memory access design is also discussed. Verilog HDL design is introduced and applied to small digital systems.
**Prerequisites:** E&C-ENGR 226, E&C-ENGR 227.
**Co-requisites:** E&C-ENGR 229.

E&C-ENGR 229 Introduction to Computer Design Laboratory Credit: 1
This laboratory course covers experimental topics related to the design of digital computer systems and arithmetic circuits which students study in the E&C-ENGR 228.
**Prerequisites:** E&C-ENGR 226, E&C-ENGR 227.
**Co-requisites:** E&C-ENGR 228.

E&C-ENGR 241 Applied Engineering Analysis I Credits: 3
**Prerequisites:** Math 220.

E&C-ENGR 250 Engineering Mechanics and Thermodynamics Credits: 3
This course concentrates on practical concepts in mechanics and thermodynamics for EC-ENGR majors, such as the practical use of forces, moments, couples, centroids, and moment of inertia, friction, manipulating systems of rigid bodies in motion and applying conservation of energy to gases, liquids, and solids. Materials will also be addressed.
**Prerequisites:** MATH 220, PHYSICS 240.

E&C-ENGR 276 Circuit Theory I Credits: 3
Kirchoff's circuit laws, Ohm's Law, nodal and mesh analyses, source transformations, superposition, Thevenin and Norton equivalents, transient analysis of 1st and 2nd order systems. AC circuit analysis, phasors, impedance, sinusoidal steady-state responses, operational amplifiers and PSpice.
**Prerequisites:** PHYSICS 250 and E&C-ENGR 241.

E&C-ENGR 277 Circuit Theory I Lab Credit: 1
Introduction to the use and limitations of basic instruments used in electrical testing and measurement. Experimental techniques and laboratory safety. Data gathering, interpretation and presentation. Preparation of laboratory reports. Experimental work supporting theoretical concepts developed in E&C-ENGR 276.
**Co-requisites:** E&C-ENGR 276.
E&C-ENGR 301 Fundamental Topics in Electrical and Computer Engineering Credits: 1-4
Undergraduate topics in electrical or computer engineering.

E&C-ENGR 302 Electromagnetic Waves and Fields Credits: 3
Elements of vector calculus: curl, gradient and divergence differential operations; vector identities; integration of vectors Stokes and Gauss's theorems, laplacian; review of electrostatic and magnetostatic fields; boundary value problems; boundary conditions; time-harmonic fields and phasors; Maxwell's equations, Poynting vector; vector and scalar wave equations; electromagnetic wave propagation in free-space, lossy and lossless dielectrics and conductors; polarization; reflections at normal and oblique incidences; transmission line parameters; telegraphers equations; input impedance and VSWR; Smith Chart and impedance matching; transients on transmission lines. Co-requisites: E&C-ENGR 303.
Prerequisites: E&C-ENGR 341R, E&C-ENGR 376, PHYSICS 250.

E&C-ENGR 302 Electromagnetic Waves and Fields Lab Credit: 1
The goal of the lab is to complement and demonstrate the main concepts of transmission line and microwave theory using hands on experiments. The experiments will introduce students to microwave sources, components, and transmission lines. Moreover, the experiments will demonstrate the concepts of wave propagation, attenuation, power splitting, reflection, and standing waves. Moreover, students will design and conduct experiments to characterize unknown loads and antennas. Recommended preparation: MATLAB knowledge/proficiency.
Co-requisites: E&C-ENGR 302.

E&C-ENGR 330 Electronic Circuits Credits: 3
Application of operational amplifiers, semiconductors device physics, elementary analysis and design of analog electronic circuits that utilize diodes, BJTs, and MOSFET's in single and multistage amplifiers with passive loads and power amplifiers; DC biasing, small signal analysis and calculation of frequency responses. The use of CAD (Spice) in the analysis and design of electronic circuits.
Prerequisites: E&C-ENGR 276 and E&C-ENGR 334.
Co-requisites: E&C-ENGR 331.

E&C-ENGR 331 Electronic Circuits Laboratory Credit: 1
Laboratory experiments in the application of operational amplifiers, the analysis, design, and testing of single and multistage amplifiers with passive loads, and the measurement of frequency response.
Prerequisites: E&C-ENGR 276, E&C-ENGR 277.

E&C-ENGR 334 Semiconductors and Devices Credits: 3
Junction theory, semiconductor diodes and models, bipolar transistors and models, field-effect transistors and models, selected electron devices and models.
Prerequisites: E&C-ENGR 341R, PHYSICS 250

E&C-ENGR 341R Applied Engineering Analysis II Credits: 3
Complex numbers; Euler's formulas, analytic functions, Taylor and Laurent series; Cauchy residue theorem and application to evaluation of integrals; linear algebra, eigenvalue and eigenvectors; Fourier series and transforms.
Prerequisites: E&C-ENGR 241.

E&C-ENGR 358 Introduction to Control Systems Credits: 3
Study of feedback techniques, with applications to control systems. Includes modeling, applications of Bode plot, root locus, state-variable, and Nyquist methods.
Prerequisites: E&C-ENGR 380.

E&C-ENGR 376 Circuit Theory II Credits: 3
Power, transformers, three-phase circuits, two-port networks, the theory and application of Laplace Transforms.
Prerequisites: E&C-ENGR 276.
Co-requisites: E&C-ENGR 377.

E&C-ENGR 377 Circuit Theory II Lab Credit: 1
Continuation of E&C-ENGR 277 introducing the use of additional instruments used in electrical testing and measurements. Statistical data evaluation methods. Experimental work supporting concepts developed in E&C-ENGR 376.
Prerequisites: E&C-ENGR 277.
Co-requisites: E&C-ENGR 376.
E&C-ENGR 380 Signals and Systems Credits: 3
Continuous and discrete-time signals and systems, frequency response, Fourier analysis of discrete and continuous signals and systems and use of z, Fourier, Discrete Fourier, and Fast Fourier Transforms.
Prerequisites: E&C-ENGR 341R.

Co-requisites: E&C-ENGR 381.

E&C-ENGR 381 Signals and Systems Lab Credit: 1
Computer Laboratory for E&C-ENGR 380. Various signal processing software programs (MATLAB and DSP) are used to investigate properties and applications of continuous and discrete time signals and systems.
Co-requisites: E&C-ENGR 380.

E&C-ENGR 400 Problems in Electrical and Computer Engineering Credits: 1-4
Analytic or experimental problems pertaining to electrical or computer engineering.
Prerequisites: Departmental consent.

E&C-ENGR 401 Topics In Electrical And Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
Prerequisites: Senior standing.

E&C-ENGR 401AN Topics in Electrical Engineering Credits: 1-4
E&C-ENGR 401AR Topics in Electrical Engineering Credits: 1-4
Topics in Electrical Engineering
E&C-ENGR 401AS Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401AV Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401BE Topics in Electrical Engineering Credits: 1-4
Topics in Electrical Engineering
E&C-ENGR 401BI Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401CA Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401CI Topics in Electrical Engineering Credits: 1-4
E&C-ENGR 401DE Special Topics ECE Credits: 1-4
E&C-ENGR 401EC Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401EP Topics in ECE Credits: 1-4
E&C-ENGR 401ES Topics in Electrical Engineering Credits: 1-4
Topics in Electrical Engineering
E&C-ENGR 401FE Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401H Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 401IR Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401KI Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
Prerequisites: Senior standing.

E&C-ENGR 401NM Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401NN Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
Prerequisites: Senior standing.

E&C-ENGR 401PE Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
Prerequisites: Senior standing.

E&C-ENGR 401PG Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
Prerequisites: Senior standing.

E&C-ENGR 401PL Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
Prerequisites: Senior standing.
E&C-ENGR 401PQ Topics in Electrical Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
**Prerequisites:** Senior standing.

E&C-ENGR 401PV Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 401RD Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
**Prerequisites:** Senior standing.

E&C-ENGR 401RS Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
**Prerequisites:** Senior standing.

E&C-ENGR 401SC Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 401SI Topics in Electrical Engineering Credits: 1-4
Topics in Electrical Engineering
E&C-ENGR 401VL Topics in Electrical Engineering Credits: 1-4
E&C-ENGR 401XX Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
**Prerequisites:** Senior standing.

E&C-ENGR 402 Senior Design I Credits: 2
First capstone design course in electrical and computer engineering. Provides and accounts for laboratory, library, research and other work needed for the development of the project. Stresses oral presentations.
**Prerequisites:** E&C-ENGR 330 and E&C-ENGR 420 or E&C-ENGR 466.

E&C-ENGR 402WI Senior Design I Credits: 2
First capstone design course in electrical and computer engineering. Provides and accounts for laboratory, library, research and other work needed for the development of the project. Stresses oral presentations.
**Prerequisites:** E&C-ENGR 330, and E&C-ENGR 420 or E&C-ENGR 466, RooWriter.

E&C-ENGR 403 Senior Design II Credit: 1
Second capstone design course in electrical and computer engineering. Project management, professional practice, ethical and engineering economic considerations and development of written and oral presentation skills. Provides laboratory experience in prototyping, fabrication, and troubleshooting of the design project. Stresses written and oral presentation.
**Prerequisites:** E&C-ENGR 402.

E&C-ENGR 403WI Senior Design II Credits: 3
Second capstone design course in electrical and computer engineering. Project management, professional practice, ethical and engineering economic considerations and development of written and oral presentation skills. Provides laboratory experience in prototyping, fabrication, and troubleshooting of the design project. Stresses written and oral presentation.
**Prerequisites:** E&C-ENGR 402WI, RooWriter.

E&C-ENGR 412 Principles of RF/Microwave Engineering Credits: 3
General aspects of TE, TM and TEM mode propagation in waveguides; circular waveguides; optical waveguides; wave propagation on dielectric backed conductors; wire antennas; equivalence principle and aperture antennas; antenna impedance and mutual coupling in arrays; array beamforming; scattering matrix representations; impedance matching; resonators; filters, couplers and power-dividers; microstriplines and striplines; r.f. propagation in wireless and radar systems; conformal mapping techniques and applications (optional).
**Prerequisites:** E&C-ENGR 302, E&C-ENGR 380, E&C-ENGR 381, MATLAB proficiency.

E&C-ENGR 414 Microwave Engineering for Wireless Systems Credits: 3
Microwave networks; s-, z- y- and abcd matrices; signal flow graphs; circular waveguides; stripline microstrip characteristics; impedance transformers; power dividers and directional couplers; microwave filters; microwave resonators; active microwave circuits.
**Prerequisites:** E&C-ENGR 302, E&C-ENGR 380, MATLAB proficiency.

E&C-ENGR 415 Microwave Engineering for Wireless Systems Lab Credit: 1
Design performance simulation of microwave filters and active microwave circuits; comparative analysis of impedance transformers; use of CAD tools in microwave circuit design.
**Prerequisites:** E&C-ENGR 414.
E&C-ENGR 416 Neural and Adaptive Systems Credits: 3
A hands-on introduction to the theory and applications of neurocomputing. Includes classification, function approximation, supervised and unsupervised learning, time series analysis, and adaptive filtering using different feed-forward and recurrent artificial neural networks.
Prerequisites: COMP-SCI 394R, E&C-ENGR 341R.

E&C-ENGR 418 Introduction to Radar Systems Credits: 3
Radar equation; MT, Pulsed Doppler and Tracking Radars; detection of and information from radar signals; radar antennas; transmitters and receivers; radar propagation and clutter.
Prerequisites: E&C-ENGR 302, E&C-ENGR 380, E&C-ENGR 381.

E&C-ENGR 420 Advanced Engineering Computation Credits: 2
Programming and computational analysis principles and techniques for various problems in embedded programming, applied computation, and signal processing.
Co-requisites: E&C-ENGR 428R and E&C-ENGR 429.

E&C-ENGR 424 Computer Design Credits: 3
Design of general purpose computers including arithmetic and control units, input/output, memory systems, microprogramming and introduction to parallel structures and processing.
Prerequisites: E&C-ENGR 226.

E&C-ENGR 426 Microcomputer Architecture and Interfacing Credits: 3
Advanced microprocessor architecture and programming; interfacing and programming of peripherals. Parallel and serial communication, interrupts, direct memory access, coprocessors.
Prerequisites: E&C-ENGR 226.

E&C-ENGR 427 Microcomputer Laboratory Credit: 1
Laboratory for E&C-ENGR 426. Microprocessor hardware and software involving interfacing of peripherals to 8-bit and 16-bit microprocessor. Simple D/A conversion, music composition, and various programmable controllers.
Prerequisites: E&C-ENGR 227.
Co-requisites: E&C-ENGR 426.

E&C-ENGR 428R Embedded Systems Credits: 3
This course examines the hardware/software aspects associated with developing microcontroller-based computer systems. The students learn about the architecture and assembly language for popular microcontrollers and how to take advantage of a variety of input/output options that include binary ports, A/D and D/A converters, communication ports, and interfacing techniques for various applications.
Prerequisites: E&C-ENGR 426, E&C-ENGR 427.
Co-requisites: E&C-ENGR 429.

E&C-ENGR 429 Embedded Systems Laboratory Credit: 1
The laboratory introduces the students to a variety of challenging design projects using microcontroller interfacing techniques to develop real world applications, such as digital thermometer and digital pressure monitoring systems. Students must produce an individual design project.
Prerequisites: E&C-ENGR 426, E&C-ENGR 427.
Co-requisites: E&C-ENGR 428R.

E&C-ENGR 430 Microelectronic Circuits Credits: 3
The analysis and design of feedback amplifiers, oscillators and of microelectronic circuits that employ diodes, MOSFETs and BJTs in current mirrors, amplifiers with active loads, differential amplifiers, operational amplifiers, and CMOS Logic gates. The use of CAD (Spice) in the analysis and design of feedback amplifiers and microelectronic circuits.
Prerequisites: E&C-ENGR 330, E&C-ENGR 331.
Co-requisites: E&C-ENGR 431.

E&C-ENGR 431 Microelectronic Circuits Laboratory Credit: 1
Laboratory experiments in the analysis, design and testing of feedback amplifiers; microelectronic circuits that employ diodes, MOSFETs and BJTs in feedback amplifiers, oscillators, current mirrors, amplifiers with active loads, differential amplifiers, operational amplifiers, and CMOS logic gates.
Prerequisites: E&C-ENGR 330, E&C-ENGR 331.
Co-requisites: E&C-ENGR 430.
E&C-ENGR 433 Analog Integrated Circuit Design Credits: 3
Principles of the design and analysis of analog integrated circuits. Study of MOS device physics and second order effects, device fabrication and layout, noise, single-stage and differential amplifiers, current mirrors, reference circuits, op amps and frequency compensation. Introduction to CAS circuit design and Cadence design tools.
Prerequisites: E&C-ENGR 276.

E&C-ENGR 436 Power Electronics I Credits: 3
Power electronic device characteristics, important circuit and component concepts, phase controlled rectifiers, line communicated inverters and AC phase control. Includes laboratory projects.
Prerequisites: E&C-ENGR 430.

E&C-ENGR 442 Introduction to VLSI Design Credits: 3
The goal of this course is to familiarize students with the design fundamentals and layout of Very Large Scale Integrated (VLSI) Circuits. The primary focus of this course is complementary MOSFET (CMOS) based digital integrated circuits design and analysis. However, the topics regarding transistor, interconnect, and circuit implementation are relevant to digital, analog and mixed-signal integrated circuits. This course is designed to be a comprehensive foundation for advanced micro- and nano-electronics courses. To familiarize the students with the realities of design complexities they will get exposure to commercial CAD tools in a separate lab co-requisite class. Recommended preparation: Basic Electronics.
Co-requisites: E&C-ENGR 443.

E&C-ENGR 443 Introduction to VLSI Design Laboratory Credits: 3
The goal of this course is to teach basic design concepts and implementation issues of digital integrated circuits. Various methods of designing and optimizing very large scale integrated (VLSI) circuits will be introduced in the lab projects. To familiarize students with the realities of integrated circuit design and layout, they will get exposure to industry-standard computer aided design (CAD) and simulation tools for VLSI circuits and systems. The students will be using these CAD tools in the following levels – schematic, layout, parasitic extraction, and circuit simulation.
Co-requisites: E&C-ENGR 442.

E&C-ENGR 454 Robotic Control and Intelligence Credits: 3
Introduces robotics; robot system characteristics; robot motive power systems; geometric structure of robots; sensors and feedback; control applications and algorithms; data acquisition and output actuation functions; robots and Artificial Intelligence; microprocessor applications in robotics.
Prerequisites: E&C-ENGR 226 (or E&C-ENGR 426), E&C-ENGR 358.

E&C-ENGR 455 Instrumentation and Control Credits: 3
The instrumentation and control of industrial processes and systems, introduction to Programmable Logic Controllers, and simulation modeling of various systems.
Prerequisites: E&C-ENGR 358.

E&C-ENGR 457 Fundamentals of Solar Photovoltaic Cells Credits: 3
The science and engineering of solar cell/solar photovoltaic (PV) spans several disciplines namely physics, chemistry, electronic and electrical engineering. Even though solar cell related researches are carried out in those traditional disciplines but it is not widely taught as a comprehensive course. This course highlights the fundamental science and engineering of solar PV devices, solar energy conversion as well as solar cell manufacturing issues. It covers from basic to modern solar PV devices, including typical solar cell materials, basic device physics, ideal and non-ideal models, device parameters and design, and device fabrication.
E&C-ENGR 458 Automatic Control System Design Credits: 3
Techniques for feedback system design analysis: compensator design examples, state variable methods, non-linear systems, and sampled-data control systems.
Prerequisites: E&C-ENGR 380, E&C-ENGR 358.

E&C-ENGR 459 Introduction to Photovoltaic Systems Credits: 3
The course presents an updated background of world energy production and consumption, a summary of the solar spectrum, how to locate the sun, and how to optimize the capture of its energy, as well as the various components that are used in PV systems. Also studied are why certain photovoltaic (PV) designs are used in certain ways, as well as how the design process is implemented. Economic and environmental issues involved in PV design criteria are discussed along with the most recently available technology, design, and installation practices.
E&C-ENGR 460 Introduction to Power Systems Credits: 3
Magnetic circuitry in general and in machinery, DC machine theory, operation, applications, transformer circuits, synchronous machine theory, operation applications, basic principles of energy conversion, introduction to power electronics, and basic principles of power transmission and control.
Prerequisites: E&C-ENGR 276.
E&C-ENGR 461 Electric Power Lab Credits: 3
Application of fundamentals and concepts of power systems to practical power plan and industrial applications. Operational limitations of all components of power system equipment. Single and Three Phase Circuits, Generators/Alternators, Transformers, Motors, and specialty items (Coronal mass Ejection, Ferroresonance, System Protection).
Prerequisites: E&C-ENGR 466.

E&C-ENGR 462 Symmetrical Components Analysis of Power Systems Credits: 3
Short circuit analysis using symmetrical components. Simultaneous faults and open conductors.
Prerequisites: E&C-ENGR 466.

E&C-ENGR 463 Advanced Sustainable Energy Systems Engineering Credits: 3
Sustainable Energy Systems Engineering focuses on understanding the theory and application of emerging energy technologies, including solar, wind, biomass, oceanic, geothermal, hydropower, fuel cell (hydrogen), nuclear, and other more exotic energy sources. A premise of the course is that a sustainable energy technology must both be technically feasible and economically viable. Renewable energy sources will be highlighted with a focus on projections for a sustainable energy future. Graduate students will be assigned an additional project to work.
Prerequisites: E&C-ENGR 466.

E&C-ENGR 465 Application of Engineering Principles to Station Design Credits: 3
Students will learn the application of engineering principles to circuits (transient and steady state responses), traveling waves, power system equipment, Lorentz forces, heat transfer, moments, load modeling, and written and oral communication. These will be applied to any of the following: a sub/switching station or an auxiliary electric system of a coal fired or combined cycle power plant. Requirements are agreed upon by an engineering firm who will sponsor this course by providing guidance.
Prerequisites: E&C-ENGR 466 with at least a B+ grade and Department Consent.

E&C-ENGR 466 Power Systems I Credits: 3
Electric power system fundamentals, rotating machines in general, synchronous, induction and DC machines, methods of power system analysis and design, modeling of power systems components such as transmission lines, transformers and generators, and analysis of steady state operation of power system under balanced conditions.
Prerequisites: E&C-ENGR 376.

E&C-ENGR 467 Power Systems II Credits: 3
Prerequisites: E&C-ENGR 358, E&C-ENGR 466.

E&C-ENGR 468 Electric Power Distribution Systems Credits: 3
Operation and design of utility and industrial distribution systems including distribution system planning; load characteristics; application of distribution transformers; design of subtransmission lines, distribution substations, primary systems, secondary systems; application of capacitors; voltage regulation and reliability.
Prerequisites: E&C-ENGR 466.

E&C-ENGR 470 Reliability of Electric Power Systems Credits: 3
Principles of reliability as applied to Power Systems with an overview of current methods to measure reliability of Power Systems are introduced. Analytical and Monte Carlo models for component state and system state duration, with contingency analysis and linear programming for optimal power flow are also covered. Restoration times and cost assessment after component or system failures due to internal or external problems provide focus to practical operating principles.
Prerequisites: COMP-SCI 394R and E&C-ENGR 466.

E&C-ENGR 472 Power Generation Systems Credits: 3
Multi discipline survey of power generation systems and subsystems, including coal-fired steam, co-generation and combined cycle, and combustion turbines. With a goal of reviewing all the major subsystems, this course exposes the electrical engineer to all the mechanical, thermodynamic, and chemical processes of power generation systems.
Prerequisites: E&C-ENGR 466.

E&C-ENGR 474 Introduction to Communication Systems Credits: 3
Introduction to principles and fundamentals of communication systems. Signal representation and analysis, Fourier transform and applications, probability and random variables, analog and digital modulation techniques.
Prerequisites: COMP-SCI 394R, E&C-ENGR 380.

E&C-ENGR 476 Introduction to Wireless Communication Systems Credits: 3
Principles of wireless communication analysis and design. Digital communication basics, cellular radio, wireless PCS communications, multiple access techniques, channel coding and equalization, and standards of digital cellular/PCS systems.
Prerequisites: E&C-ENGR 474.
E&C-ENGR 477 Introduction to Wireless Networking Credits: 3
Principles of the design and analysis of wireless networks. Study of medium access control, administration routing and adaptation to the complexities of the wireless environment. Investigation of networking issues in the IEEE 802.11 family of standards, IEEE 802.15 (Bluetooth), Long Term Evolution, cellular, satellite, ad hoc, and sensor networks.
Prerequisites: COMP-SCI 394R.

E&C-ENGR 480 Digital Signal Processing Credits: 3
Concepts, analytic tools, design techniques used in computer processing of signals: signal representation, sampling, discrete-time system analysis, recursive/non-recursive filters, design/implementation of digital filters.
Prerequisites: E&C-ENGR 380.

E&C-ENGR 484 Digital Image Processing Credits: 3
Fundamentals of digital image processing hardware and software, including digital image acquisition, display, compression, transforms and segmentation. Recommended preparation: Experience in a high-level programming language.
Prerequisites: E&C-ENGR 380.

E&C-ENGR 486 Pattern Recognition Credits: 3
Pattern recognition techniques of applications such as automatic recognition for speech, visual inspection systems, clinical medicine, automatic photographic recognition systems and advanced automation systems.
Prerequisites: E&C-ENGR 380.

E&C-ENGR 491 Internship Credits: 6
Students may participate in structured internships under the joint supervision of an employer and a faculty member. The student must carry out significant professional responsibilities that also have academic merit. The number of credit hours is based on the quality of the academic experience. Available for credit/ncredit only and students must be in good standing with at least 18 credit hours of EC-ENGR courses counting towards the degree. Registration by consent number only: petition forms for E&C-ENGR 491 internships are available in the office of CSEE Division and on the web. Prerequisites: At least 18 hours of EC-ENGR courses toward the degree.

E&C-ENGR 497 Directed Readings Credits: 1-4
Readings in an area selected by an undergraduate student in consultation with a faculty member. Arrangements must be made prior to registration.

E&C-ENGR 499 Undergraduate Research Credits: 1-3
Completion of a project, including a final written report, under the direction of a faculty member. A prospectus must be accepted prior to registration.

E&C-ENGR 5316 Artificial Neural and Adaptive Systems Credits: 3
This graduate course is a hands-on introduction to theory and applications of neurocomputing, including: classification, function approximation, supervised and unsupervised learning, time series analysis, and adaptive filtering using different feed-forward and recurrent artificial neural networks.
Prerequisites: E&C-ENGR 341R (or COMP-SCI 5590CI).

E&C-ENGR 5318 Dynamical Systems and Complex Networks Credits: 3
An overview of classical dynamical systems, and its application in different fields such as Electrical Engineering (nonlinear circuits), Network Sciences, Epidemiology, and Ecology will be discussed. Phenomena such as chaos, bifurcation, and limit cycles will be examined. This course will also introduce and develop the mathematical theory of Complex Networks with applications to network-driven phenomena in Um Internet, search engines, social networks, the World Wide Web, information and biological networks; spectral graph theory; models of networks including random graphs, preferential attachment models, and the small-world models.

E&C-ENGR 5501AP Special Topics In Electrical Engineering Credits: 1-4

E&C-ENGR 5501NN Special Topics In Electrical Engineering Credits: 1-4

E&C-ENGR 5512 Microwave Remote Sensing Credits: 3
Basic principles of remote sensing including scattering, absorption, transmission, and reflection of microwave energy. Basic radiative transfer theory. Microwave remote sensing systems including altimeters, scatterometers, radiometers, synthetic-aperture systems. Principle applications of remote sensing systems including imaging, atmospheric sounding, oceanographic monitoring, ice-sheet dynamics, etc.
Prerequisites: E&C-ENGR 414.

E&C-ENGR 5513 Advanced Principles of RF/Microwave Engineering Credits: 3
General aspects of TE, TM and TEM mode propagation in waveguides; circular waveguides; optical waveguides; wave propagation on dielectric backed conductors; wire antennas equivalence principle and aperture antennas; antenna impedance and mutual coupling in arrays; array beamforming; scattering matrix representations; impedance matching; resonators; filters, couplers and power-dividers; microstrip and striplines; r.f. propagation in wireless and radar systems; conformal mapping techniques ad applications (optional).
Prerequisites: E&C-ENGR 302, E&C-ENGR 380, E&C-ENGR 381, knowledge in Engineering Computation, Technical Writing Skills.
E&C-ENGR 5516 Computer Networks Credits: 3
Concepts and goals of computer networking, structure of computer networks, OSI model and layers, network control, analysis, design and management, data communication techniques including fiber optics, WAN, MAN and LAN architecture and protocols, internetworking, case studies and hand-on studying the performance by analytic modeling and computer simulation.
Prerequisites: E&C-ENGR 424.

E&C-ENGR 5518 Advanced Radar Systems & Techniques Credits: 3
Radar equation; MTI, Pulsed Doppler and Tracking Radars; Detection of and information from Radar Signals; Radar Antennas, Transmitters and Receivers; Radar Propagation and clutter.
Prerequisites: E&C-ENGR 302, E&C-ENGR 380.

E&C-ENGR 5528 Advanced Embedded Systems Credits: 3
This course examines the hardware/software aspects associated with developing microcontroller-based computer systems. The students learn about the architecture and assembly language for popular microcontrollers and how to take advantage of a variety of input/output options that include binary ports, A/D and D/A converters, communication ports, and interfacing techniques for various applications. Graduate students are required to do Embedded Systems lab experiments.
Prerequisites: E&C-ENGR 426, E&C-ENGR 427.

E&C-ENGR 5530 Digital Electronics Credits: 3
Electronic hardware aspects of digital systems. Includes state-of-the-art information on integrated-circuit logic devices and their applications.

E&C-ENGR 5532 Biomedical Instrumentation Credits: 3
Biomedical objectives, physical and engineering principles; optimal equipment design and actual performance of biomedical instrumentation; considers practical instrumentation problem solutions and unsolved problems.
Prerequisites: E&C-ENGR 330.

E&C-ENGR 5533 Analog Integrated Circuit Design Credits: 3
This course will cover the analysis and design of analog and mixed signal integrated circuits, with an emphasis on design principles for realizing state-of-the-art analog circuits. The course will provide the critical concepts by giving physical and intuitive explanations in addition to the quantitative analysis of important analog building block circuits. First-order hand calculations and extensive computer simulations are utilized for performance evaluation and circuit design. Students will be required to complete a final project which will involve the design at the layout level of an analog circuit. Successful designs will be fabricated through the MOSIS Educational Service.
Prerequisites: E&C-ENGR 276, E&C-ENGR 330.

E&C-ENGR 5534 Computer Arithmetic Credits: 3
Computer arithmetic is a sub field of digital computer organization. It deals with the hardware realization of arithmetic functions to support various computer architectures as well as with arithmetic algorithms for firmware/software implementation. A major thrust of digital computer arithmetic is the design of hardware algorithms and circuits to enhance the speed of various numeric operations. Verilog HDL is used as tool to simulate the algorithms and circuits.
Prerequisites: E&C-ENGR 226, E&C-ENGR 5535.

E&C-ENGR 5535 Hdl-Based Digital Systems Design Credits: 3
This course covers hardware design techniques using a Hardware Description Language (HDL). It also discusses several digital system design methodologies, including structural specifications of hardware, HDL-based simulations and testbenches. Courses focus on the synthesis methodologies for use-defined primitives (UDP), data types, operators, Verilog constructs multiplexed datapaths, buses, bus drivers, FSMs, assignments, case, functions, tasks, named events and rapid prototyping techniques with Verlog HDL, ASICs and FPGAs.
Prerequisites: E&C-ENGR 226.

E&C-ENGR 5536 Power Electronics II Credits: 3
Circuit concepts and analysis techniques for transistor switching regulators, thyristor choppers, transistor inverters, self-commutated thyristor inverters and cycloconverters.
Prerequisites: E&C-ENGR 436.

E&C-ENGR 5537 Mixed-Signal Integrated Circuit Design Credits: 3
Modern integrated circuit design often requires the integration of analog and digital circuits on the same chip. This integration provides numerous advantages over purely analog or digital approaches. This course will cover the analysis and design of mixed-signal integrated circuits and will address the challenges of having both analog and digital circuits on the same substrate. Important mixed-signal circuits such as data converters and filters will be studied in detail.
Prerequisites: E&C-ENGR 433 (or E&C-ENGR 5533).
E&C-ENGR 5542 Introduction to VLSI Design Credits: 3
With a focus on CMOS Digital technology this course covers the basic concepts of integrated circuits, various methods of designing VLSI circuits, and techniques to analyze performance metrics (speed, area, power and noise). Clocking, interconnect and scaling issues of integrated circuit will also be discussed. It will cover device, interconnect and circuit level implementation issues of both logic and memory circuits. To familiarize students with the realities of design complexities and layout environment they will get exposure to VLSI CAD tools in the following levels - schematic, layout, extraction and circuit simulation through the labs and projects.

E&C-ENGR 5556 Advanced Instrumentation and Control Credits: 3
The instrumentation and control of industrial processes and systems. Introduction to Programmable Logic Controllers. Simulation modeling of various systems.
Prerequisites: E&C-ENGR 358 (or MEC-ENGR 415).

E&C-ENGR 5557 Fundamentals of Solar Photovoltaic Cells Credits: 3
The science and engineering of solar cell/solar photovoltaic (PV) spans several disciplines namely physics, chemistry, electronic and electrical engineering. Even though solar cell related researches are carried out in those traditional disciplines but it is not widely taught as a comprehensive course. This course highlights the fundamental science and engineering of solar PV devices, solar energy conversion as well as solar cell manufacturing issues. It covers from basic to modern solar PV devices, including typical solar cell materials, basic device physics, ideal and non-ideal models, device parameters and design, and device fabrication.

E&C-ENGR 5558 Automatic Control System Design Credits: 3
Techniques for feedback system design and analysis; computational aids, compensator design and examples, state variable methods, non-linear systems, ad sampled-data control systems.
Prerequisites: E&C-ENGR 226, E&C-ENGR 358.

E&C-ENGR 5559 Introduction to Photovoltaic Systems Credits: 3
The course presents an updated background of world energy production and consumption, a summary of the solar spectrum, how to locate the sun and how to optimize the capture of its energy, as well as the various components that are used in PV systems. Some section of the course has also been added to explain why certain photovoltaic (PV) designs are done in certain ways, as well as how the design process is implemented. Economic and environmental issues as PV design criteria are discussed along with the most recently available technology and design and installation practice.

E&C-ENGR 5560 Electric Power Distribution Systems Credits: 3
Operation and design of utility and industrial distribution systems including distribution system planning; load characteristics; application of distribution transformers; design of subtransmission lines, distribution substations, primary systems, secondary systems, Smart Grid; application of capacitors; voltage regulation and reliability.
Prerequisites: E&C-ENGR 466.

E&C-ENGR 5563 Sustainable Energy System Engineering Credits: 3
This course focuses on understanding the theory and application of emerging energy technologies, including solar, wind, biomass, oceanic, geothermal, hydropower, fuel cell (hydrogen), nuclear, and other more exotic energy sources. A premise of the course is that a sustainable energy technology must both be technically feasible and economically viable. We consequently investigate the above energy technologies and the technological promise, progress, and application of each energy source, as well as its economic opportunities and challenges. Renewable energy sources will be highlighted with a focus on projections for a sustainable energy future.

E&C-ENGR 5565 Auxiliary Electric System Design Credits: 3
This course provides design, operation, contingency analysis and black start requirements of an Auxiliary Electric System (AES) for a coal fired power plant using industry standards (IEEE-666, NEMA MG-1, ANSI C57 and C37 as well as relevant IEC).
Prerequisites: E&C-ENGR 466 or Department Approval.

E&C-ENGR 5567 Power Systems II Credits: 3
This course covers power system matrices, power flow analysis, Gauss-Seidel and Newton-Raphson techniques, fast-decoupled load flow, economic dispatch, transient stability and operation, and power system control.
Prerequisites: E&C-ENGR 358, E&C-ENGR 466.

E&C-ENGR 5568 Economics of Power Systems Credits: 3
Transmission loss formula coefficients, incremental costs and losses, economic scheduling of generation, and applications.
Prerequisites: E&C-ENGR 466, E&C-ENGR 467.

E&C-ENGR 5569 Reliability of Electric Power Systems Credits: 3
Development and use of mathematical models for the calculation and estimation of various measures of reliability in electric power systems, Reliability restoration times and cost assessment of generation, transmission, distribution and composite systems are analyzed.
Prerequisites: COMP-SCI 394R.
E&C-ENGR 5570 Principles of Digital Communication Systems Credits: 3
Principles of random processes, information sources and source coding, modulation and demodulation, block and convolutional error control coding, and equalization.
Prerequisites: COMP-SCI 394R (or equivalent), E&C-ENGR 380.

E&C-ENGR 5572 Antennas & Propagation For Wireless Systems Credits: 3
This course introduces the mathematical aspects of the basic antenna parameters such as vector potential, gain, directivity, impedance, radiation patterns, and develops a comprehensive theory of antenna arrays including the effects of mutual coupling. In-depth modeling studies for wire, aperture and microstrip antennas, is presented; diffraction of plane electromagnetic (TE and TM) waves by perfectly conducting half-planes and wedges- applications to site-specific propagation path modeling in wireless systems.
Prerequisites: E&C-ENGR 341R (or equivalent), E&C-ENGR 412 (or equivalent), written communication skills.

E&C-ENGR 5573 Advanced Electric Power Lab Credits: 3
Advanced applications of concepts experienced in Generating Plants, Substations and Power Plants of fundamentals and concepts of power systems to practical power plan and industrial applications. Operational limitations of all components of power system equipment. Single and Three Phase Circuits, Generators/Alternators, Transformers, Motors, and specialty items (Coronal mass Ejection, Ferroresonance, System Protection).
Prerequisites: E&C-ENGR 466 (or equivalent) and Consent of the Department.

E&C-ENGR 5577 Wireless Communications Credits: 3
Principles of the design and analysis of wireless communications, Study of propagation mechanisms, statistical characterization of wireless channels, diversity and MIMO, spread spectrum and CDMA, Orthogonal Frequency Division Multiplexing (OFDM).
Prerequisites: COMP-SCI 394R (or equivalent).

E&C-ENGR 5578 Multimedia Communication Credits: 3
Visual communication is dominating the Internet and mobile networks. This class covers topics on video signal processing, modeling, compression, and communication. Includes information theory foundations on source coding, lossless coding schemes, video coding framework, as well as the current status of video coding standards and multimedia communication systems.

E&C-ENGR 5579 Digital Signal Processing in Telecommunications Credits: 3
Applications of digital signal processing in telecommunications systems; oversampling and quantization, Delta-Sigma modulation, linear predictive speech coding, adaptive filtering, echo canceller, adaptive receivers and equalizers for wireless communication, digital cellular, CDMA.
Prerequisites: E&C-ENGR 474, E&C-ENGR 480.

E&C-ENGR 5580 Digital Signal Processing Credits: 3
Analysis and representation of discrete-time signals and systems including a discussion of discrete-time convolution, difference equations, the z-transform and the discrete Fourier transform. Similarities with and distinctions between discrete-time and continuous-time signals and systems. Digital network structures for implementation of both recursive (infinite impulse response) and nonrecursive (finite impulse response) digital filters. FFT (Fast Fourier Transform) algorithm for computation of the discrete Fourier transform. Graduate students will be expected to successfully complete a number of additional projects as compared with E&C-ENGR 480.
Prerequisites: E&C-ENGR 380.

E&C-ENGR 5582 Image Analysis and Retrieval Credits: 3
Image is an essential form of information representation and communication in modern society with many applications ranging from photography, entertainment, education, defence to medical. A good understanding of the vast amount of image content at signal, image formation, syntactic and semantic levels, would be essential to create new capability and enabling new applications. The course is project based, teaching both theory and practical algorithm and system solutions for image formation/representation, analysis/understanding, image features computing and aggregation, indexing, hashing, and retrieval, as well as applications in mobile visual search, augmented reality and image based navigation.
Prerequisites: E&C-ENGR 5580 or equivalent.

E&C-ENGR 5584 Advanced Digital Image Processing Credits: 3
Fundamentals of applied grayscale digital image processing, image sensing and acquisition and quantization, basic set and discrete convolution operations with images, intensity transformations and spatial domain filtering via convolutional masks (smoothing, Laplacian and gradient masks), frequency domain filtering via the two-dimensional discrete transform, two-dimensional sampling and Nyquist theory, frequency domain filtering using lowpass/highpass, rectangular, round, Guassian and Butterworth filters, image restoration using noise filtering via mean order-statistic and adaptive filters, bandpass, band reject and notch filters, Weiner filters, image deblurring filters, computed aided tomography (i.e. CAT scans), morphological image processing and image segmentation.
Prerequisites: E&C-ENGR 380 (Or equivalent undergraduate course in signal processing) and prior experience with MATLAB.

E&C-ENGR 5586 Pattern Recognition Credits: 3
Decision functions, distance measures, minimum distance classifiers, hard clustering methods, fuzzy clustering methods, statistical pattern recognition methods, Bayesian classifiers, error probabilities, estimation of density functions, perceptrons, least-mean-square algorithms, feature selection, dimensionality reduction and syntactic pattern recognition.
Prerequisites: COMP-SCI 394R (or STAT 436), a course in high-level programming language.
E&C-ENGR 5588 Communication Theory I Credits: 3
Generalized communication systems, signal processing, signals as random processes, optimum receivers.
Prerequisites: COMP-SCI 394R, a statistics course.

E&C-ENGR 5590 Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590AC Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590AD Special Topics in Electrical and Computer Engineering Credits: 1-4
Special Topics in Electrical and Computer Engineering
E&C-ENGR 5590AE Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590AN Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590AR Special Topics In Electrical And Computer Engineering Credits: 1-4
Special Topics in Electrical and Computer Engineering
E&C-ENGR 5590AS Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590AV Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590AW Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590BB Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590BE Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590BI Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590BP Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590CA Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590CD Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590CI Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590CL Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590CN Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590CS Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590CT Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590DC Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590DE Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590DS Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590EN Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590ER Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590ES Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590ET Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590FC Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590HF Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590IC Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590IE Special Topics Credits: 1-4
E&C-ENGR 5590IN Special Topics In Electrical And Computer Engineering Credits: 1-4
Special Topics In Electrical And Computer Engineering
E&C-ENGR 5590IP Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590IR Special Topics In Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590MC Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590ML Special Topics In Electrical And Computer Engineering Credits: 1-4
Special Topics In Electrical And Computer Engineering
E&C-ENGR 5590MS Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590MW Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590NA Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590NG Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590NM Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590NN Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590NR Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590NT Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590ON Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590OT Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590PB Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590PD Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590PG Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590PL Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590PL2 Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590PL3 Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590PQ Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590PR Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590PS Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590PV Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590RD Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590RE Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590RF Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590SC Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590SD Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590SI Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590SL Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590SP Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590ST Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590TC Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590VL Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590WC Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590WW Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590WX Special Topics in Electrical and Computer Engineering Credits: 1-3
E&C-ENGR 5590XX Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5597 Directed Readings Credits: 1-3
Readings in an electrical and computer engineering areas selected by the graduate student in consultation with a faculty member. Arrangements must be made prior to registration.
E&C-ENGR 5598 Research Seminar Credits: 1-3
Graduate research and/or readings in an electrical and computer engineering area selected by the graduate student in consultation with a faculty member. Arrangements must be made prior to registration.
E&C-ENGR 5599 Research Credits: 1-6
Independent investigation in field of electrical engineering to be presented in the form of a thesis.
E&C-ENGR 5600 Problems Credits: 2-5
Supervised investigation in electrical engineering to be presented in form of report.
E&C-ENGR 5606 Electromagnetic Scattering and Antenna Theory Credits: 3
Dyadic analysis; integral equations and Green's functions; field theorems-uniqueness, induction equivalence, reciprocity; image and Babinet's Principles; applications to antennas; method of stationary phase and applications to aperture antennas; array antennas and mutual coupling analysis; method of moments; asymptotic techniques and applications to EM scattering from wedges, cylinders, and spheres; RF propagation path loss modeling and conformal antennas.
Prerequisites: E&C-ENGR 412.

E&C-ENGR 5616 Parallel and Distributed Processing Credits: 3
Covers the fundamental issues involved in designing and writing programs for simultaneous execution. Semaphores and monitor constructs are covered to provide a basis for critical section programming. Expansion of these concepts provide a basis for the analysis and design of control systems for multiprocessor devices and computer networks.
Prerequisites: A systems programming course.

E&C-ENGR 5617 Neural Network Based Computing System Credits: 3
The course will consider computing systems based on neural networks and learning models, along with implementations and applications of such systems.

E&C-ENGR 5618 Artificial Intelligence Credits: 3
Concepts, theories, and models pertaining to neural nets, pattern recognition, learning systems, and programmed problem solving.

E&C-ENGR 5619 Theory of Automata Credits: 3
Sequential machines: Turing machines; deterministic and stochastic automata; applications of automata.

E&C-ENGR 5624 Digital Software Systems Design Credits: 3
Characteristics and parameters of various software subsystem including assemblers, compilers, utility programs, special programming packages, interpreters, and operating systems; and principles of organization into efficient systems.

E&C-ENGR 5633 Nanoelectronics II: Nanoscale Integration & Manufacturing Credits: 3
This course is continuation of Nanoscale Devices and circuits course offered in Fall 2016. In this course students will learn theory about semiconductor processing, and their applications. Limitations of existing process techniques will be discussed, and advances in both physical implementation and circuit/integration techniques will be introduced. Some example of topics that will be covered are: optical lithography, EUV lithography, nanoimprint, implantation, manufacturing aware circuit design, etc. The laboratory work will include modeling and simulation with state-of-the-art semiconductor processing and device simulation tools such as: SRIM, Sentaurus TCAD Process, Sentaurus TCAD Device, etc. Research intensive course.
Co-requisites: E&C-ENGR 5542.

E&C-ENGR 5635 VLSI Systems Design Credits: 3
Course discuss design of the MOSFETs (nFETs and pFETs), and high speed CMOS cascades in VLSI. It also covers the design of various arithmetic circuits, different fast adders, memories, and chip-level physical designs requirements in the VLSI subsystems are also the focus of this course. It uses Verilog HDL/VHDL as a tool to design VLSI systems.
Prerequisites: E&C-ENGR 5535 (or knowledge of VHDL).

E&C-ENGR 5642 Advanced VLSI Design Credits: 3
Course focuses on the issues and challenges of high performance VLSI circuits and systems. The course will be based on papers published in accredited journals and conference proceedings. The goals of this course: (1) Familiarize students with the current and emerging trends, issues and design alternatives of deep submicron and nanoscale IC technologies; (2) Help students acquire the knowledge and skills required for graduate study and research, and professional careers in IC industry; and (3) Teach students how to collect and survey technical materials, develop new research ideas, write research papers, and present technical contents in front of an audience.

E&C-ENGR 5644 Liapunov and Related Nonlinear Methods in Automatic Control Credits: 3
A study of nonlinear methods in automatic control including phase plane analysis, describing function techniques, basic definitions and theorems of Liapunov, methods of generating Liapunov functions, applications of Liapunov's methods, and Popov's methods.

E&C-ENGR 5645 Optimal Control Theory Credits: 3
Analysis and design of dynamic systems using optimal control theory parameter optimization, dynamic optimization, computational methods, differential games.

E&C-ENGR 5646 Stochastic Optimal Estimation and Control Credits: 3
Surveys random process theory; stochastic control and optimization; estimation and filtering based on Kalman-Bucy techniques; stochastic stability; adaptive and learning control systems.

E&C-ENGR 5660 Power-Systems Stability Credits: 3
Performance of synchronous machines under transient conditions, power system stability, system fault computations using symmetrical components; computer solutions of power system problems.

E&C-ENGR 5661 Solid State Energy Conversion Credits: 3
Solid state direct energy conversion; and design of thermoelectric generators and heat pumps.
E&C-ENGR 5662 Power Electronic Drives Credits: 3
Advanced study of dc and ac motor drives controlled by power electronic methods, including phase controlled rectifier de chopper, cycloconverter, variable frequency inverters.
Prerequisites: E&C-ENGR 5536.

E&C-ENGR 5664 Lightning and Switching Surges in Power Systems Credits: 3
Overvoltage, switching surge and lightning effects of a power system. Use of grounding and lightning arresters. Effects of surges off and on machines.
Prerequisites: E&C-ENGR 466 (or equivalent), E&C-ENGR 467 (or equivalent).

E&C-ENGR 5668 Advanced Computer Methods in Power System Analysis Credits: 3
Prerequisites: E&C-ENGR 466, strong background in FORTRAN or C.

E&C-ENGR 5670 Direct Current Power Systems Credits: 3
Characteristic and performance analysis of DC transmission lines and associated conversion systems.

E&C-ENGR 5672 Power Systems Relaying Credits: 3
Theory of relaying systems for power system protection, improvement of power system stability. Relay coordination; performance of relays during transient swings and out-of-step conditions.
Prerequisites: E&C-ENGR 466.

E&C-ENGR 5674 Machine Intelligence Credits: 3
Formal languages in relation to natural language processing; formal languages, graphs, and image processing; formal logic and automated theorem proving; natural language processing; aspects of problem solving and heuristic programming.

E&C-ENGR 5675 Introduction to the Modeling and Management of Uncertainty Credits: 3
Theoretical and practical issues in the modeling and management of uncertainty. Topics include probabilistic uncertainty, belief theory and fuzzy set theory. Applications to computer vision, pattern recognition and expert systems.

E&C-ENGR 5676 Advanced Electric Circuit Analysis Credits: 3
Specialized study of mathematical analysis as applied to solutions of circuit networks with fixed and variable parameters.

E&C-ENGR 5677 Network Synthesis Credits: 3
Surveys linear active and nonreciprocal circuit elements, reliability conditions, methods for synthesizing active networks, and practical applications.
Prerequisites: E&C-ENGR 5676.

E&C-ENGR 5680 Digital and Sample-Data Systems Credits: 3
Introduces sampling and quantization, design of digital and sample-data systems, digital filters, adaptive sampling and quantization.
Prerequisites: E&C-ENGR 480.

E&C-ENGR 5681 Applications Of Transforms Credits: 3
Applications of Laplace and other transform methods of solution of circuit and field problems.

E&C-ENGR 5682 Coding Theory II Credits: 3
Further study of error-correcting codes; ring and cyclic codes, linear switching circuits, burst error codes, codes for arithmetic units, etc.
Prerequisites: E&C-ENGR 5579.

E&C-ENGR 5684 Computer Vision Credits: 3
Image processing methods for segmentation, object representation, scene description and scene interpretation.
Prerequisites: E&C-ENGR 484.

E&C-ENGR 5688 Communication Theory II Credits: 3
Probability theory of analog and digital communication in the presence of random process noise. Encoding systems, detection systems, optimum receivers.
Prerequisites: E&C-ENGR 472.

E&C-ENGR 5690 Advanced Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5690EM Advanced Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5690ET Advanced Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5690ND Special Topics in Electrical and Computer Engineering Credits: 1-3
E&C-ENGR 5697 Advanced Directed Readings Credits: 1-5
Advanced readings in an electrical and computer engineering area selected by the graduate student in consultation with a faculty member. Arrangements must be made prior to registration.
E&C-ENGR 5698 Advanced Research Seminar Credits: 1-5
Advanced Graduate research and/or readings in an electrical and computer engineering area selected by the doctoral student in consultation with a faculty member. Arrangements must be made prior to registration.

E&C-ENGR 5699 Dissertation Research Credits: 1-9
Doctoral Dissertation

Information Technology Courses

INFO-TEC 222 Multimedia Production and Concepts Credits: 3
Multimedia production and concepts will give an overview of multimedia technology and communication theory needed to deliver information and to produce interactive presentations for the web, portable media, and for in-person presentations and demos. The course offers exposure to software, hardware, other multimedia technologies, authoring and copyright matters.

Prerequisites: COMP-SCI 101.

INFO-TEC 290 Special Topics Credits: 1-3
Selected topics in specific subject areas of Information Technology which are not part of the regular offerings.

INFO-TEC 321 Introduction to Computing Resources Administration Credits: 3
This introductory course is designed to give an overview of a wide variety of technical, interpersonal, documentation, and managerial skills needed to become an effective systems administrator.

Prerequisites: COMP-SCI 201R.

INFO-TEC 350 Object-Oriented Software Development Credits: 3
Application of object oriented programming languages as a means to implement object oriented designs. Polymorphism through inheritance and interfaces, design methods such as Responsibility Driven Design and such reusable design techniques as abstract classes and frameworks. Event-driven programming and the Java Swing classes for constructing interactive Graphical User Interfaces (GUIs), the basics of the Unified Modeling (UML) and elementary design patterns.

Prerequisites: COMP-SCI 303.

INFO-TEC 426 Practical Network Security Credits: 3
This course examines common threats to computer network security and discusses various techniques to mitigate those threats. The course material is supplemented with lab assignments that implement network security tools and use them to build a small secure network. It discusses information hiding, traffic monitoring and control, intrusion detection, and security policy. Note: NOT FOR GRADUATE CREDIT.

Prerequisites: COMP-SCI 420.

INFO-TEC 427 Network Analysis Credits: 3
This course focuses on routing in an autonomous system network using Cisco Systems equipment. It will include a review of the fundamental operations needed in AS routing and will then, through lecture and lab assignments, implement various network configurations using Cisco equipment. The concepts addressed will include router, switch and protocol implementations for Cisco Discovery Protocol, Spanning Tree Protocol, VLAN's, VLAN Trunking Protocol and standard Cisco network routing protocols, among others.

Prerequisites: COMP-SCI 420, INFO-TEC 321.

INFO-TEC 429 Introduction to Cybersecurity Credits: 3
This course introduces students to cybersecurity and its domains. The course will cover topics such as cryptography, software development security, access control, security architecture, security operations, disaster recovery, and physical and environmental security.

Prerequisites: INFO-TECH 321.

INFO-TEC 490 Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490A Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490C Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490DC Introduction to Data Compression Credits: 3
This course provides an introduction to information theory, first-order entropy, lossless methods such as Huffman coding, arithmetic coding, and dictionary methods; and lossy and transform coding including image, audio, and video formats. The emphasis in this course is on algorithmic understanding and applications rather than derivation from first principles. Not for graduate credit.

Prerequisites: MATH 210, COMP SCI 303, or equivalent.

INFO-TEC 490GP Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490IT Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.
INFO-TEC 490J Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490JU Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490MI Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490NA Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490NS Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490SD Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490WD Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 491 Internship Credits: 1-6
Students may participate in structured internships under the joint supervision of an employer and a faculty member. The student must carry out significant professional responsibilities that also have academic merit. The number of credit hours is based on the quality of the academic experience. Available for credit/no credit only, and students must be in good standing with a least 18 credit hours of CS/IT counting towards the degree.

Prerequisites: Departmental consent.
Bachelor of Information Technology

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

• Have the ability to apply knowledge of computing and mathematics appropriate to the discipline;
• Have the ability to analyze a problem, and identify and define the computing requirements appropriate to its solution;
• Have the ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs;
• Have the ability to function effectively on teams to accomplish a common goal;
• Have the understanding of professional, ethical, legal, security and social issues and responsibilities;
• Have the ability to communicate effectively with a range of audiences;
• Have the ability to analyze the local and global impact of computing on individuals, organizations, and society;
• Have recognition of the need for and an ability to engage in continuing professional development;
• Have the ability to use current techniques, skills, and tools necessary for computing practice;
• Have the ability to use and apply current technical concepts and practices in the core information technologies;
• Have the ability to identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems;
• Have the ability to effectively integrate IT-based solutions into the user environment;
• Have the understanding of best practices and standards and their application;
• Have the ability to assist in the creation of an effective project plan.

Program Description
The Bachelor of Information Technology is accredited by the Computing Accreditation Commission of ABET. http://www.abet.org.

The use of computers in commerce and industry keeps the college educated IT professional at the forefront of occupational demand. The Bachelor of Information Technology (B.I.T.) program prepares for a career path where the student contributes to the continued deployment of technology infrastructure (operating systems, browsers, applications, software, networking, etc.). It blends both CS, IT, and Business coursework and requires an internship for the completion of the degree. Please contact the DST Student Services Center for more information at (816)235-2399 or sce@umkc.edu.

Educational Objectives
The Bachelor of Information Technology degree is designed so that graduates will attain employment in an IT related field. Some graduates will achieve appropriate certifications and/or will pursue advanced study in business, IT or other fields. Graduates will be engaged in lifelong learning and thereby advance in their careers.
Career Implications
There remains a large and growing number of unfulfilled IT positions both nationwide and within the Kansas City area. B.I.T. graduates are typically employed as software developers, network specialists, web developers, information system operators, programmer analysts, digital media specialists and database administrators. The need of the future is for students with an analytic and problem solving mindset who are able to adapt quickly to an ever-changing environment.

Admission Requirements
High school students planning to apply to the School of Computing & Engineering are strongly encouraged to take a college preparatory program that emphasizes mathematics, science and communication skills.

First-time college student applicants to the undergraduate program in information technology will be admitted if they obtain:

1. An ACT mathematics score of at least 25 and
2. An ACT composite score of at least 24

First-time college student applicants who do not meet the above criteria but do meet UMKC general admission requirements will have their applications reviewed by a faculty committee for admission. Applicants who are not admitted to SCE but do meet UMKC general admission requirements may be admitted to University College.

Students without the prerequisite preparation must take the needed coursework before enrolling in courses required for the bachelor’s degree. Students seeking re-admission must have been in good academic standing when last enrolled. Otherwise, re-admission requires a formal review by the undergraduate program committee.

Transfer applicants must have at least 24 credits of transferable college credit, an overall 2.0 GPA on a 4.0 scale in all coursework, which includes repeated coursework, attempted at previous institutions. Transfer applicants without a 2.0 or higher college GPA must submit a petition for admission.

Program Requirements
The requirements for the BIT degree are categorized into several areas totaling at least 120 hours of study.

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Anchor I</td>
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<td>3</td>
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<tr>
<td>Anchor II</td>
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<tr>
<td>Anchor III (ANCH 308 Required; Satisfied in program requirements below)</td>
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<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
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<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
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<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
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<tr>
<td>Focus A</td>
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<tr>
<td>Focus B (Satisfied in program requirements below)</td>
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<tr>
<td>Focus C (May be satisfied by the Constitution requirement below)</td>
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<tr>
<td>Focus Elective (Satisfied in program requirements below)</td>
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</table>

Total Credits

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement
Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
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</tbody>
</table>
HISTORY 102  U.S. History Since 1877 (Focus C)
HISTORY 360R  Constitutional History of the United States
HONORS 230  Honors American Government (Focus C)
POL-SCI 210  American Government (Focus C)

Total Credits  3

1  Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

Major Requirements

A minimum grade of C is required in all courses offered in the School of Computing & Engineering, as well as in Math and Stat coursework.

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td><strong>Mathematics</strong></td>
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<tr>
<td>ALEKS Math Placement</td>
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<tr>
<td>MATH 110 (College Algebra; Typically not required due to ACT Admission Requirement)</td>
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<tr>
<td>MATH 120 (Precalculus; Typically not required due to ACT Admission Requirement)</td>
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<tr>
<td>MATH 210  Calculus I (Focus B) 1</td>
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<tr>
<td>STAT 235  Elementary Statistics (Focus B) 1</td>
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<tr>
<td><strong>Life and Physical Sciences</strong></td>
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<tr>
<td>One Life Science</td>
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<tr>
<td>One Physical Science</td>
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<td>To include at least one laboratory component</td>
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<tr>
<td><strong>General Education Synthesis</strong></td>
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<tr>
<td>COMP-SCI 449  Foundations of Software Engineering</td>
<td>3</td>
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<tr>
<td>COMP-SCI 451R  Software Engineering Capstone</td>
<td>3</td>
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<tr>
<td><strong>Anatomy of Business</strong></td>
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<tr>
<td>ACCTNG 210  Introduction To Financial Accounting</td>
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<tr>
<td>ECON 202  Introduction To Economics II</td>
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<tr>
<td>MKT 324  Marketing Concepts</td>
<td>3</td>
<td></td>
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<tr>
<td>DSO/M 326  Production/Operations Management</td>
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<tr>
<td>Select two of the following:</td>
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<tr>
<td>ACCTNG 211  Introduction To Managerial Accounting</td>
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<tr>
<td>ENT 315  Entrepreneurial Mindset and Opportunity Recognition</td>
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<tr>
<td>FIN 325  Financial Management 5</td>
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<tr>
<td>MGT 306  Legal, Ethical And Regulatory Environment Of Business</td>
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<tr>
<td>MGT 330  Understanding the Individual in the Organization 5</td>
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<tr>
<td><strong>Computer Science/Information Technology</strong></td>
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<tr>
<td>ANCH 308  Ethical Issues in Computing &amp; Engineering</td>
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<tr>
<td>COMP-SCI 101  Problem Solving and Programming I</td>
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<tr>
<td>&amp; 101L  and Problem Solving &amp; Programming I Lab</td>
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<tr>
<td>COMP-SCI 191  Discrete Structures I</td>
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<tr>
<td>COMP-SCI 201R  Problem Solving and Programming II</td>
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<tr>
<td>&amp; COMP-SCI 201L  and Problem Solving and Programming II - Lab</td>
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<tr>
<td>COMP-SCI 281R  Introduction to Computer Architecture and Organization</td>
<td>3</td>
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<tr>
<td>COMP-SCI 291  Discrete Structures II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COMP-SCI 303  Data Structures</td>
<td>3</td>
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</table>
Bachelor of Information Technology

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COMP-SCI 431</td>
<td>Introduction to Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 420</td>
<td>Introductory Networking and Applications</td>
<td>3</td>
</tr>
<tr>
<td>or COMP-SCI 421A</td>
<td>Foundations of Data Networks</td>
<td></td>
</tr>
<tr>
<td>COMP-SCI 456</td>
<td>Human Computer Interface</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 470</td>
<td>Introduction to Database Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>or COMP-SCI 371</td>
<td>Database Design, Implementation and Validation</td>
<td></td>
</tr>
<tr>
<td>INFO-TEC 222</td>
<td>Multimedia Production and Concepts</td>
<td>3</td>
</tr>
<tr>
<td>INFO-TEC 321</td>
<td>Introduction to Computing Resources Administration</td>
<td>3</td>
</tr>
<tr>
<td>CS/IT Electives (Upper Level)</td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

**Internship Requirement**

Take 3 hours of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO-TEC 491</td>
<td>Internship</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits: 91-94

1. Students must take and pass the Math Entrance Test called ALEKS before enrolling in this course.
2. See advisor for course options.
3. RooWriter must be taken before completing 90 credit hours. (go to https://umkc.edu/roowriter/ for more details)
4. Students with appropriate CS/IT business experience may petition to replace the internship requirement with a 3 credit hour senior CS/IT course.
5. Course required if pursuing a business minor.

**Code**

**Title**

**Credits**

General Electives

Minimum GPA: 2.0

Total Credit Hours: 120

---

**Tools for Planning and Filling Academic Requirements**

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Bachelor of Science: Computer Science

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

• Be able to apply knowledge of discrete structures and computer organization appropriate to the discipline.
• Be able to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
• Be able to communicate effectively with a range of audiences.

Program Description
The Bachelor of Science in Computer Science is accredited by the Computing Accreditation Commission of ABET, http://www.abet.org.

Please note that accreditation for the Bachelor of Arts in Computer Science (BACS), which we also offer, has not been requested.

This degree program serves to give the student excellent preparation for careers in computer science, for graduate study, or for fields where CS is an important ingredient. Students receive a strong technical background in computer science, which is coupled with a broad, general education. The BS degree prepares for a career path where the student contributes to the continued development of technology infrastructure (operating systems, browsers, applications, softwares, networking, etc). A BS/MS Option for completing both a BS in CS and a MS in CS in five years is available, (see below) (http://www.umkc.edu/umkc/catalog/html/sce/cs-ee/cs-fast-track.html). Furthermore, a minor in Computer Science is available as well. Please contact the DST Student Services Center for more information at (816)235-2399 or sce@umkc.edu.

The faculty of CSEE approved several changes effective in the fall of 2012 for the degrees of BA in CS, the BS in CS, and the Bachelor of IT in reaction to feedback received from constituents and an analysis of assessment data. These changes center on a modernization of the curriculum and help to better prepare students for careers in computer science and information technology. Students who started their degree program prior to the fall 2012 term have the option to complete the degree requirements in effect at the time they first started their program, switch to the requirements in effect when they graduate, or petition to combine aspects of both. Students should consult with an advisor for full details.

Educational Objectives
The undergraduate degrees in CS are designed so that graduates will attain employment and advance their careers in industry, government and academia. BS students will find employment in CS related fields, and BA students will find employment in fields where computing is an important ingredient. Some graduates will achieve appropriate certifications and/or pursue advanced study in computer science or other graduate fields. Graduates will be engaged in lifelong learning and thereby advance in their careers.
Career Implications

Computers and processors of all sizes and descriptions appear in every area of the public and private sectors. Consequently, employment prospects for computer science degree holders remain steady. Current projections have the demand for computer science graduates exceeding the supply for many years to come. The range of opportunities open to the new graduate in computer science is impressive.

Computer science graduates are employed as members of technical staff, software engineers, programming or systems analysts, and scientific or application programmers by some of the nation’s largest companies. These companies include internet based commerce and software based hi-tech industries, insurance, banks and financial institutions, computer and electronics manufacturers, the communications industry, the biomedical industry, the defense industry, and engineering firms.

Admission Requirements

High school students planning to apply to the School of Computing & Engineering are strongly encouraged to take a college preparatory program that emphasizes mathematics, science and communication skills.

First-time college student applicants to the undergraduate program in computer science will be admitted if they obtain:

1. An ACT mathematics score of at least 25 and
2. An ACT composite score of at least 24

First-time college student applicants who do not meet the above criteria but do meet UMKC general admission requirements will have their applications reviewed by a faculty committee for admission. Applicants who are not admitted to SCE but do meet UMKC general admission requirements may be admitted to University College.

Students without the prerequisite preparation must take the needed coursework before enrolling in courses required for the bachelor’s degree. Students seeking re-admission must have been in good academic standing when last enrolled. Otherwise, re-admission requires a formal review by the undergraduate program committee.

Transfer applicants must have at least 24 credits of transferable college credit, an overall 2.0 GPA on a 4.0 scale in all coursework, which includes repeated coursework, attempted at previous institutions. Transfer applicants without a 2.0 or higher college GPA must submit a petition for admission.

Program Requirements

Curriculum requirements for both of the Computer Science degrees are categorized into several areas totaling at least 120 hours of study.

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I ¹</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor II ¹</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor III (ANCH 308 Required; Satisfied in program requirements below)</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Focus A ¹</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Focus B (Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>DISC 300</td>
<td>Focus C (May be satisfied by the Constitution course requirement below)</td>
<td></td>
</tr>
<tr>
<td>Focus Elective (Satisfied by program requirements below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:
The following are the required courses for the major:

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</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

**Major Requirements**

A minimum grade of C is required in all Computer Science, Info Tech, Math, Stat, and Physics coursework.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mathematics</td>
<td></td>
</tr>
<tr>
<td>ALEKS Math Placement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 110 (Precalculus Algebra; Typically not required due to ACT Admission Requirement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 120 (Precalculus; Typically not required due to ACT Admission Requirement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 210</td>
<td>Calculus I (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 220</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 300</td>
<td>Linear Algebra I</td>
<td>3</td>
</tr>
<tr>
<td>STAT 235</td>
<td>Elementary Statistics (Focus B)</td>
<td>3</td>
</tr>
</tbody>
</table>

|          | Life and Physical Sciences                                 |         |
| PHYSICS 240 & PHYSICS 250 | Physics For Scientists and Engineers I and Physics For Scientists and Engineers II (Focus B) | 10      |

One Life Science Course: 4

|          | Synthesis Courses                                          |         |
| COMP-SCI 449 | Foundations of Software Engineering                       | 3       |
| COMP-SCI 451R | Software Engineering Capstone                            | 3       |

|          | Computer Science Requirements                              |         |
| ANCH 308 | Ethical Issues in Computing & Engineering                 | 3       |
| COMP-SCI 101 & 101L | Problem Solving and Programming I and Problem Solving & Programming I Lab | 4       |
| COMP-SCI 191 | Discrete Structures I                                    | 3       |
| COMP-SCI 201R & COMP-SCI 201L | Problem Solving and Programming II and Problem Solving and Programming II - Lab | 4       |
| COMP-SCI 281R | Introduction to Computer Architecture and Organization | 3       |
| COMP-SCI 291 | Discrete Structures II                                    | 3       |
| COMP-SCI 303 | Data Structures                                           | 3       |
| COMP-SCI 394R | Applied Probability                                      | 3       |
| COMP-SCI 404 | Introduction to Algorithms and Complexity                | 3       |
| COMP-SCI 421A or COMP-SCI 420 | Foundations of Data Networks or Introductory Networking and Applications | 3       |
| COMP-SCI 431 | Introduction to Operating Systems                         | 3       |
COMP-SCI 441  Programming Languages: Design and Implementation  3
COMP-SCI 461  Introduction to Artificial Intelligence  3
or COMP-SCI 465R  Introduction to Statistical Learning
COMP-SCI 470  Introduction to Database Management Systems  3
or COMP-SCI 371  Database Design, Implementation and Validation

**Major Electives**

COMP-SCI Electives (300 or 400 level)  9
COMP-SCI Adv Elective (400 level)  3

Total Credits  90

1 RooWriter should be taken immediately following completion of Discourse 200 and must be taken before attaining 90 credit hours. Go to https://umkc.edu/roowriter/ for more details
2 See academic advisor for list of courses.
3 Students must take the Math Placement called ALEKS before enrolling in STAT 235 and MATH 210.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Minimum GPA: 2.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Credit Hours: 120</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Specialty Areas**

Students pursuing the B.S. degree in Computer Science are required to take four additional elective courses (at the 300 or 400 level including at least one 400 level course), with which they can tailor their degree to their specific needs. Students have the option to pursue the emphasis areas in Bioinformatics or Software Engineering. An interest area in Computer and Telecommunications Networking is also available.

**Bioinformatics Emphasis**

The courses required for the emphasis area in Bioinformatics are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose 12 hours from the following:</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>BIOLOGY 108</td>
<td>General Biology I</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 108L</td>
<td>General Biology I Laboratory</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 109</td>
<td>General Biology II</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 109L</td>
<td>General Biology II Laboratory</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 202</td>
<td>Cell Biology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 206</td>
<td>Genetics</td>
<td></td>
</tr>
<tr>
<td>CHEM 211</td>
<td>General Chemistry I (Life Science Elective)</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 211L</td>
<td>Experimental General Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CHEM 212R</td>
<td>General Chemistry II</td>
<td></td>
</tr>
<tr>
<td>CHEM 212LR</td>
<td>Experimental General Chemistry II (Life Science Elective)</td>
<td>1</td>
</tr>
<tr>
<td>COMP-SCI 490</td>
<td>Special Topics (Introduction to Bioinformatics)</td>
<td></td>
</tr>
<tr>
<td>COMP-SCI 371</td>
<td>Database Design, Implementation and Validation</td>
<td></td>
</tr>
<tr>
<td>or COMP-SCI 470</td>
<td>Introduction to Database Management Systems</td>
<td></td>
</tr>
<tr>
<td>Life Science Elective</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

1 An advisor approved junior or senior level course in Biology, Chemistry, Physics, Life Sciences, or other similar discipline.

**Software Engineering Emphasis**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose 12 hours from the following:</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>INFO-TEC 350</td>
<td>Object-Oriented Software Development</td>
<td></td>
</tr>
<tr>
<td>COMP-SCI 349</td>
<td>Java Programming with Applications</td>
<td></td>
</tr>
</tbody>
</table>
Computer and Telecommunications Networking Interest Area

For the interest area in Computer and Telecommunications Networking, students may take CS advanced electives from the following list of courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Choose 12 hours from the following:</td>
<td>12</td>
</tr>
<tr>
<td>COMP-SCI 411</td>
<td>Introduction to Telecommunications Systems</td>
<td></td>
</tr>
<tr>
<td>COMP-SCI 420</td>
<td>Introductory Networking and Applications</td>
<td></td>
</tr>
<tr>
<td>COMP-SCI 421A</td>
<td>Foundations of Data Networks</td>
<td></td>
</tr>
<tr>
<td>COMP-SCI 423</td>
<td>Client/Server Programming and Applications</td>
<td></td>
</tr>
</tbody>
</table>

Courses offered as special topics (COMP-SCI 490) that are relevant to this concentration may also count as well as courses offered in Information Technology (such as INFO-TEC 426 and INFO-TEC 427) and Electrical and Computer Engineering.

Tools for Planning and Fulfilling Academic Requirements

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Students graduating from this program will:

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• Be able to communicate effectively with a range of audiences.

Program Description
Please note that accreditation for the Bachelor of Arts in Computer Science (BACS), has not been requested.

This degree program serves to give the student excellent preparation for careers in computer science or for fields where CS is an important ingredient. Students receive a strong technical background in computer science, which is coupled with a broad, general education. The BA degree prepares for a career path where the student contributes to advancing infrastructures tailored for specific areas, often outside the core areas of computer science. Furthermore, a Bachelor of Science in Computer Science as well as a minor in Computer Science are available.

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1. An ACT mathematics score of at least 25 and
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Transfer applicants must have at least 24 credits of transferable college credit, an overall 2.0 GPA on a 4.0 scale in all coursework, which includes repeated coursework, attempted at previous institutions. Transfer applicants without a 2.0 or higher college GPA must submit a petition for admission.

Program Requirements

Curriculum requirements for both of the Computer Science degrees are categorized into several areas totaling at least 120 hours of study.

Program Specific Recommendations for UMKC General Education (p. 2250) Core Coursework

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III (ANCH 308 Required; Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
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<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>Focus C</td>
<td>(May be satisfied by the Constitution course requirement below)</td>
<td></td>
</tr>
<tr>
<td>Focus Elective (Satisfied by program requirement below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

"Total credits" in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 18

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
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<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) 1</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 3
Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

**Major Requirements**

A minimum grade of C is required in all Computer Science, Math, and Stat coursework.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mathematics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALEKS Math Placement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 110 (College Algebra; Typically not required due to ACT Admission Requirement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 120 (Pre-Calculus; Typically not required due to ACT Admission Requirement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 210</td>
<td>Calculus I (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>MATH 220</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>STAT 235</td>
<td>Elementary Statistics (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Life and Physical Sciences</strong></td>
<td></td>
<td>7-10</td>
</tr>
<tr>
<td>One Life Science course</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One Physical Science course</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With a minimum of one lab</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Synthesis Course Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMP-SCI 449</td>
<td>Foundations of Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 451R</td>
<td>Software Engineering Capstone</td>
<td>3</td>
</tr>
<tr>
<td><strong>Computer Science Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANCH 308</td>
<td>Ethical Issues in Computing &amp; Engineering</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 101</td>
<td>Problem Solving and Programming I</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 101L</td>
<td>and Problem Solving &amp; Programming I Lab</td>
<td></td>
</tr>
<tr>
<td>COMP-SCI 191</td>
<td>Discrete Structures I</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 201R</td>
<td>Problem Solving and Programming II</td>
<td>4</td>
</tr>
<tr>
<td>&amp; COMP-SCI 201L</td>
<td>and Problem Solving and Programming II - Lab</td>
<td></td>
</tr>
<tr>
<td>COMP-SCI 281R</td>
<td>Introduction to Computer Architecture and Organization</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 291</td>
<td>Discrete Structures II</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 303</td>
<td>Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 431</td>
<td>Introduction to Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI Electives (300 or 400 level)</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>COMP-SCI Advanced Electives (400 level)</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**Foreign Language Requirement**

Students must take a two course sequence of one foreign language, or have taken a two year sequence at high school. If foreign language requirement is waived due to high school credit, then students need to add up to ten (10) credit hours of General Electives to total 120 credit hours total for the BA COMP-SCI degree

**Total Credits**

68-75

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1. Students must take the Math Placement called ALEKS before enrolling in this course.
2. RooWriter must be taken prior to enrollment in DISC 300 and Anchor 3 course. Go to [www.umkc.edu/roowriter](https://www.umkc.edu/RooWriter/logon.aspx) for more details.
3. A minimum of one lab in either from one of the following areas: Biology, Chemistry, Environmental Science, Geosciences, or Physics.
4. See academic advisor for list of course options.
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>31</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0

Total Credit Hours: 120

**Tools for Planning and Fulfilling Academic Requirements**

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student's officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
BS/MS Program in Computer Science

BS/MS CS in Five Years

The School of Computing and Engineering established the BS/MS program to offer students an opportunity to meet the full requirements of the existing BS and MS degree programs in a shorter time period than the separate degree programs by completing a B.S. degree within four years and then completing an M.S. degree in the fifth year.

Computer Science (BS)/(MS):

• Students admitted to the program will receive the SCE BS/MS Scholarship which will cover the difference between Graduate and Undergraduate tuition rates
• Students are required to maintain full-time undergraduate enrollment (minimum 12 hours/semester)
• Must be continuously enrolled from BS to MS programs (must enter graduate program the semester following completion of BS degree requirements)
• Students are required to maintain full-time enrollment (minimum 9 hours/semester) in the graduate phase of the program and complete the master's degree within a year of their bachelor's degree completion to continue to receive the BS/MS Scholarship

Admission Requirements for BS/MS Program:

Students must meet the following requirements to be eligible:

• The GRE will be waived for students who meet the qualifications above and are planning to enroll in the BS/MS program
• Students must indicate their interest and apply to the program no later than the end of their junior year
• Students must complete 30 hours at SCE prior to admission to the BS/MS program
• Students are expected to follow the recommended curriculum (although deviations are possible) and must maintain: UMKC cumulative GPA of 3.00 or higher

This program offers students an opportunity to meet the full requirements of the existing BS and MS degree programs in a shorter time period than the separate degree programs by completing a B.S. degree in Computer Science within four years, and then completing an M.S. degree in Computer Science in their fifth year. Please contact our department for additional information or clarification on the information below by calling (816) 235-1193, or sending an e-mail to mailto:csee@umkc.edu. (csee@umkc.edu)

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

• Be able to apply knowledge of discrete structures and computer organization appropriate to the discipline.
• Be able to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
• Be able to communicate effectively with a range of audiences.
• Develop solutions for advanced problems using appropriate skills and knowledge in computer science.
• Demonstrate advanced knowledge in an area of specialization.
• Recognize and apply state of the art techniques and tools in the field.
• Plan and conduct scholarly activities.
• Communicate effectively in both written and oral forms.
• Recognize the need for and ability to engage in life-long learning.
• Understand ethical and professional responsibilities.
• Work effectively in teams.

Requirements for Graduation

Credit Hour Requirements
The BS and MS program in Computer Science requires:
• 120 Undergraduate Credit Hours,
• 24 Graduate Credit Hours,
• 6 General Elective hours that can be satisfied at any level,
• 150 Total Credit Hours.

Academic Requirements
The academic requirements for both degrees are identical to the requirements for the two degrees when considered separately, with a few additions and exceptions.

1. Students enrolled in the plan must maintain a 3.0 cumulative GPA for all UMKC coursework.
2. Students must receive a minimum grade of C (2.0) in every undergraduate course attempted in the CSEE Department.
3. Students must receive a minimum grade of B (3.0) for every graduate course attempted in the CSEE Department.
4. Students should follow the recommended sample program in order to graduate within five years, but variations are possible.

For additional details, please contact our Department by phone (816) 235-1193 or by e-mail mailto:sce@umkc.edu. (sce@umkc.edu)

Tools for Planning and Fulfilling Academic Requirements
UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Minor in Computer Science

Student Learning Outcomes

Students will have the ability to apply knowledge of computing and mathematics as appropriate.

Students will have the ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.

Students will have the ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.

Students will have the ability to use current techniques, skills, and tools necessary for computing practice.

Program Requirements

For students to obtain a minor in Computer Science, they must satisfy all University degree requirements (see the General Undergraduate Academic Regulations and Information section in this catalog), satisfy the requirements as set forth by the major degree (major department, major academic unit) and obtain a GPA of 2.0 or higher in the eight courses specified below, with no individual computer science grade below a C (2.0).

There are no other requirements specifically required by the minor, although some of the courses do have prerequisites from outside of SCE. In particular, MATH 110 or higher is a prerequisite for COMP-SCI 101, COMP-SCI 191 and COMP-SCI 303.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP-SCI 101 &amp; 101L</td>
<td>Problem Solving and Programming I and Problem Solving &amp; Programming I Lab</td>
<td>4</td>
</tr>
<tr>
<td>COMP-SCI 191</td>
<td>Discrete Structures I</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 201R &amp; COMP-SCI 201L</td>
<td>Problem Solving and Programming II and Problem Solving and Programming II - Lab</td>
<td>4</td>
</tr>
<tr>
<td>COMP-SCI 281R</td>
<td>Introduction to Computer Architecture and Organization</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 291</td>
<td>Discrete Structures II</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 303</td>
<td>Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 3xx/4xx</td>
<td>Two Jr./Sr Level Electives</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>26</strong></td>
</tr>
</tbody>
</table>
Bachelor of Science in Electrical and Computer Engineering

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:
• Be able to apply knowledge of mathematics, science, and engineering
• Be able to design and conduct experiments, as well as to analyze and interpret data
• Be able to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
• Be able to function on multidisciplinary teams
• Be able to identify, formulate, and solve engineering problems
• Be able to understand professional and ethical responsibility
• Be able to communicate effectively
• Be able to understand the impact of engineering solutions in a global, economic, environmental, and societal context
• Be able to recognize of the need for, and an ability to engage in life-long learning
• Have knowledge of contemporary issues
• Be able to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Program Description
The Bachelor of Science in Electrical and Computer Engineering (ECE) is accredited by the Engineering Accreditation Commission of ABET http://www.abet.org/.

The ECE degree program is designed to provide the key elements of both an electrical engineering and a computer engineering curriculum. It also provides additional courses that involve the business and entrepreneurial aspects of engineering. Graduates of this program are prepared for larger breadth in job opportunities than are typically available in a traditional electrical engineering program. A BS/MS Program for completing both a BS in ECE and a MS in EE in five years is available (see below). For additional information, please contact the DST Student Services Center at (816)235-2399 or sce@umkc.edu.

Educational Objectives
The undergraduate degree in ECE is designed so that graduates will attain employment in electrical and/or computer engineering and advance their careers in this field or achieve success in other areas. Some graduates will become registered professional engineers and/or pursue advanced studies.
Career Implications

Job opportunities abound for electrical and computer engineering majors. In terms of starting salaries and the number of job offers, ECE graduates compare favorably with other engineering graduates. In addition, the ECE curriculum at UMKC equips the graduate with the analytical decision-making skills necessary to pursue diverse technical, managerial and entrepreneurial career opportunities.

Admission Requirements

High school students planning to apply to the School of Computing & Engineering are strongly encouraged to take a college preparatory program that emphasizes mathematics, science and communication skills.

First-time college student applicants to the undergraduate program in electrical and computer engineering will be admitted if they obtain:

1. An ACT mathematics score of at least 25 and
2. An ACT composite score of at least 24

First-time college student applicants who do not meet the above criteria but do meet UMKC general admission requirements will have their applications reviewed by a faculty committee for admission. Applicants who are not admitted to SCE but do meet UMKC general admission requirements may be admitted to University College.

Students without the prerequisite preparation must take the needed coursework before enrolling in courses required for the bachelor’s degree. Students seeking re-admission must have been in good academic standing when last enrolled. Otherwise, re-admission requires a formal review by the undergraduate program committee.

Transfer applicants must have at least 24 credits of transferable college credit, an overall 2.0 GPA on a 4.0 scale in all coursework, which includes repeated coursework, attempted at previous institutions. Transfer applicants without a 2.0 or higher college GPA must submit a petition for admission.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
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<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III (Satisfied in program requirements below)</td>
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<td></td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied by the Constitution course requirement below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus Elective (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 18

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>
Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

### Major Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Math Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALEKS Math Placement</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>MATH 210</td>
<td>Calculus I (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>MATH 220</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>COMP-SCI 394R</td>
<td>Applied Probability</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 241</td>
<td>Applied Engineering Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 341R</td>
<td>Applied Engineering Analysis II</td>
<td>3</td>
</tr>
<tr>
<td><strong>Life and Physical Sciences Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 211</td>
<td>General Chemistry I (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>or BIOLOGY 102</td>
<td>Biology and Living</td>
<td></td>
</tr>
<tr>
<td>CHEM 211L</td>
<td>Experimental General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>or BIOLOGY 102L</td>
<td>Biology and Living Laboratory</td>
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</tr>
<tr>
<td>PHYSICS 240</td>
<td>Physics For Scientists and Engineers I (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td>PHYSICS 250</td>
<td>Physics For Scientists and Engineers II (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td><strong>Higher Order Thinking Requirements</strong></td>
<td></td>
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<tr>
<td>E&amp;C-ENGR 216</td>
<td>Engineering Computation</td>
<td>4</td>
</tr>
<tr>
<td>E&amp;C-ENGR 420</td>
<td>Advanced Engineering Computation</td>
<td>2</td>
</tr>
<tr>
<td><strong>Electrical and Computer Engineering Requirements</strong></td>
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</tr>
<tr>
<td>ANCH 308</td>
<td>Ethical Issues in Computing &amp; Engineering (grade of C or better for major requirements)</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 130</td>
<td>Engineering Graphics</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 226</td>
<td>Logic Design</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 227</td>
<td>Logic Design Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>E&amp;C-ENGR 228</td>
<td>Introduction to Computer Design</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 229</td>
<td>Introduction to Computer Design Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>E&amp;C-ENGR 250</td>
<td>Engineering Mechanics and Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 276</td>
<td>Circuit Theory I</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 277</td>
<td>Circuit Theory I Lab</td>
<td>1</td>
</tr>
<tr>
<td>E&amp;C-ENGR 302</td>
<td>Electromagnetic Waves and Fields</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 303</td>
<td>Electromagnetic Waves and Fields Lab</td>
<td>1</td>
</tr>
<tr>
<td>E&amp;C-ENGR 330</td>
<td>Electronic Circuits</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 331</td>
<td>Electronic Circuits Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>E&amp;C-ENGR 334</td>
<td>Semiconductors and Devices</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 358</td>
<td>Introduction to Control Systems</td>
<td>3</td>
</tr>
<tr>
<td>or E&amp;C-ENGR 474</td>
<td>Introduction to Communication Systems</td>
<td></td>
</tr>
<tr>
<td>E&amp;C-ENGR 376</td>
<td>Circuit Theory II</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 377</td>
<td>Circuit Theory II Lab</td>
<td>1</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>E&amp;C-ENGR 380</td>
<td>Signals and Systems</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 381</td>
<td>Signals and Systems Lab</td>
<td>1</td>
</tr>
<tr>
<td>E&amp;C-ENGR 402</td>
<td>Senior Design I</td>
<td>2</td>
</tr>
<tr>
<td>E&amp;C-ENGR 403</td>
<td>Senior Design II</td>
<td>1</td>
</tr>
<tr>
<td>E&amp;C-ENGR 426</td>
<td>Microcomputer Architecture and Interfacing</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 427</td>
<td>Microcomputer Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>E&amp;C-ENGR 428R</td>
<td>Embedded Systems</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 429</td>
<td>Embedded Systems Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>E&amp;C-ENGR 466</td>
<td>Power Systems I</td>
<td>3</td>
</tr>
</tbody>
</table>

**Senior Electives**

- Take 3 elective courses at the 400 level in ECE (not already completed above). 
- Take one elective course at the 400 level in ECE, COMP-SCI, INFO-TEC, or PHYSICS (not already completed above)

**Total Credits**: 107

**Minimum GPA**: 2.0

**Minimum grade of C in all courses offered in the School of Computing & Engineering as well as Math and Physics.**

**Total Credit Hours**: 128

**Tools for Planning and Fulfilling Academic Requirements**

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
BS/MS Electrical and Computer Engineering/Electrical Engineering

BS/MS Program in Electrical and Computer Engineering

The School of Computing and Engineering established the BS/MS program to offer students an opportunity to meet the full requirements of the existing BS and MS degree programs in a shorter time period than the separate degree programs by completing a B.S. degree within four years and then completing an M.S. degree in the fifth year.

Electrical and Computer Engineering (BS)/(MS):

- Students are required to maintain full-time undergraduate enrollment (minimum 12 hours/semester)
- Must be continuously enrolled from BS to MS programs (must enter graduate program the semester following completion of BS degree requirements)
- Students admitted to the program will receive the SCE BS/MS Scholarship which will cover the difference between Graduate and Undergraduate tuition rates
- Students are required to maintain full-time graduate enrollment (minimum 9 hours/semester) and complete the masters degree within the year following the completion of their bachelor's degree to remain enrolled in the program and receive the BS/MS Scholarship.

Admission Requirements for BS/MS Program:

Students must meet the following requirements to be eligible:

- The GRE will be waived for students who meet the qualifications above and are planning to enroll in the BS/MS program
- Students must indicate their interest and apply to the program no later than the end of their junior year
- Students must complete 30 hours at SCE prior to admission to the BS/MS program
- Students are expected to follow the recommended curriculum (although deviations are possible) and must maintain: UMKC cumulative GPA of 3.00 or higher

Please contact our department for additional info or clarification by phone (816) 235-1193 or by e-mail mailto:csee@umkc.edu. (csee@umkc.edu)

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Requirements for BS/MS Graduation

Credit Hour Requirements

The BS/MS combination of a Bachelor of Science in Electrical and Computer Engineering and a Master of Science in Electrical Engineering requires:

- 127 Undergraduate Credit Hours
- 24 Graduate Credit Hours
- 151 Total Credit Hours.
Academic Requirements
The curricular requirements for both degrees are identical to the requirements for the two degrees when considered separately, with a few additions and exceptions.

1. Students enrolled in the plan must maintain a 3.0 cumulative GPA for all UMKC coursework.
2. Students must receive a minimum grade of C (2.0) for every undergraduate course attempted in the CSEE Department.
3. Students must receive a minimum grade of B (3.0) for every graduate course attempted in the CSEE Department.
4. Students should follow the recommended sample program in order to graduate within five years, but variations are possible.

For additional details, please contact our Department by phone (816) 235-1193 or by e-mail mailto:csee@umkc.edu (csee@umkc.edu)

Five Year Program Sample
Students should follow the sample program as listed for the BS in ECE degree and should apply for the graduate degree prior to enrolling for the fall semester of their fourth year. During their fifth year, they could enroll in 12 credit hours each semester or make use of the summer semester between their fourth and fifth year to take a course or special project, if offered.

Tools for Planning and Fulfilling Academic Requirements
UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Master of Science in Computer Science

Program Description

The University of Missouri-Kansas City has created an exciting and uniquely designed program of graduate study in computer science. Significant changes are always occurring within this discipline in recent years and our graduate program in computer science reflects those changes, providing in-depth education in the new technology and skills most in demand in this growing industry.

The UMKC graduate student has the unique opportunity to get a concentrated state-of-the-art education in some of the most dynamic, challenging and professionally significant specialty areas. This is made possible by unusual advantages which the UMKC program possesses:

- An interdisciplinary approach to new technology.
- Faculty who are each actively pursuing research in these areas.

Students can earn an M.S. degree in computer science with an emphasis or area of interest in:

- Bioinformatics
- Data Science
- Database and Information Management
- Networking and Telecommunications
- Software Engineering

Many courses are offered in these areas. Contact us for more information by phone: (816) 235-1193 or send an e-mail mailto:csee@umkc.edu (csee@umkc.edu)

Admission Requirements

The University of Missouri-Kansas City's graduate program in computer science will accept college and university graduates whose past performance indicates an ability to succeed in graduate study in computer science. This ability can be demonstrated by the following undergraduate preparation.

1. A sound background in computer science as indicated by an above-average understanding (e.g. a cumulative GPA in CS coursework of 3.0 or better with no single course grade lower than 2.0) of the content of the following courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP-SCI 101</td>
<td>Problem Solving and Programming I</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 191</td>
<td>Discrete Structures I</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 201R</td>
<td>Problem Solving and Programming II</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 201L</td>
<td>Problem Solving and Programming II - Lab</td>
<td>1</td>
</tr>
<tr>
<td>COMP-SCI 281R</td>
<td>Introduction to Computer Architecture and Organization</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 291</td>
<td>Discrete Structures II</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 303</td>
<td>Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 394R</td>
<td>Applied Probability</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 404</td>
<td>Introduction to Algorithms and Complexity</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 431</td>
<td>Introduction to Operating Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

2. A sound background in mathematics as indicated by an above average understanding (e.g. a GPA of 3.0 or better with no single course grade lower than 2.0) of calculus (minimum of 10 hours) and of the content of at least two additional upper-level courses in areas such as linear algebra, differential equations, abstract algebra, numerical analysis or mathematical logic.

3. An overall GPA of 3.0 or better in all undergraduate work.

4. Official results of the Graduate Record Exam (GRE) general test. The applicant must score in at least the 75th percentile on the quantitative portion of the GRE and it is recommended that the applicant score in at least the 30th percentile on the verbal portion of the GRE. Admission to our degree programs is competitive so higher scores are recommended.

5. For international students, a minimum test score of IELTS 6.5 or iBT 79 is needed. A higher score makes the application competitive for DISA (Dean's International Student Award) consideration.

6. Prospective students who want to be considered for acceptance to the M.S. degree program should submit the following documents:

   a. Transcripts for all graduate and undergraduate work completed so far; syllabi of these courses (or a URL to these) is strongly suggested.
   b. Copies of academic and scholarly diplomas received.
Master of Science in Computer Science

c. GRE scores and, for international students, TOEFL scores, as well as a statement of purpose, i.e. a one- or two-page essay in which the prospective students indicate their career objectives.

It is possible that a prospective student has obtained a solid understanding of either computer science or mathematics through work or other experience rather than formal study. These students must submit a detailed description of such experience and ask a supervisor to write a letter of reference supporting the application.

Applications will be reviewed by the master's committee when all documentation is received.

U.S. citizens or permanent residents may apply online at www.umkc.edu/admissions or submit application forms and required supporting materials to:

Mailing Address
University of Missouri-Kansas City
Office of Admissions
120 Administrative Center
5100 Rockhill Road
Kansas City, MO 64110-2499

Their telephone number is (816) 235-1111 and their e-mail address is admit@umkc.edu.

International students may apply online at www.umkc.edu/isao (http://www.umkc.edu/isao) or fax application to (573) 884-4894 and send all supporting documents to:

Mailing Address
University of Missouri-Kansas City
Office of International Student Affairs
5100 Rockhill Road
Kansas City, MO 64110-2499

Their telephone number is (816) 235-1113 and their e-mail address is isao@umkc.edu.

Prospective students can request additional information or request information regarding their application by contacting UMKC at the above addresses or by sending e-mail to: csee@umkc.edu.

Starting the Program

When accepted into the program, the student's first contact is with the computer science principal graduate advisor or with members of the CSEE graduate degree program committee during the orientation session. The most immediate concern is for the courses to be taken in the first semester. The principal graduate advisor will help the student select those initial courses. At this initial meeting, a review will be made of the student's status in the program and the student will be required to provide a tentative program of study within the first semester. Such a program should reflect the deficiency and prerequisite courses that have been prescribed and may have to be taken prior to taking courses for graduate credit.

Within the first semester, the student will be assigned a graduate advisor (faculty) who will then become the primary contact person for that student until a thesis advisor (for thesis option) is selected. The CS co-chair of the CSEE graduate degree program committee or his/her designee will notify the student of the identity of the specific graduate advisor. It will be the responsibility of students, in conjunction with their advisors/chairs, to devise a program of study using the degree requirements worksheet and the course planning worksheet. This should be submitted to the graduate committee, usually by the end of the second semester. The CSEE graduate degree program committee is in charge of handling procedural issues related to the M.S. program in computer science. Any request for exception to rules, regulations or policies should be directed to this committee.

Deficiencies

The CSEE graduate degree program committee reviews and evaluates all applications for admissions to the M.S. degree programs. Frequently, they review applications from students whose past academic record show strong positive indications for success as a graduate student, yet have not satisfied all courses needed for full admission. Students with an undergraduate degree in computer science from an ABET accredited program are well prepared. Others may have deficiencies in their preparation. The committee may offer these students admission to the program on a conditional basis and compile a list of "deficiency courses". The successful completion of these courses with a grade of B or better will be a condition of full admission to the program. The student is then required to complete all such deficiencies as a contractual obligation at the earliest opportunity.

The committee creates this list based on the transcripts and syllabi submitted by the applicant. However, it is possible that applicants have indeed satisfied one or more of their listed deficiencies. In these cases, the student should contact their academic advisor as soon as possible in the first semester to initiate a petition to waive the deficiencies in question. The written petition with all the needed supporting documentation (such as course syllabus) attached, must be submitted no later than six weeks (two weeks for summer) after the start of the first semester of enrollment. Any petition received after the deadline will be denied and returned without review. The decision of the committee is final and can be one of three:
• The waiver is granted.
• The waiver is denied and the student is allowed to take an examination.
• The waiver is denied and the student must pass the class with a B (3.0) or higher (usually the course of action if the student does not pass the examination).

The committee's decision is final, so it is important that students consult with their advisor to ensure that all the proper documentation supporting the waiver is submitted.

If the student is allowed to take an examination, it must take place no later than the second semester of enrollment. The student may take the exam only once. If the student does not perform satisfactorily on the exam, then the student must enroll in the course to satisfy the deficiency requirement.

All deficiencies shall be satisfied within two semesters of admission. If deficiencies are not satisfied within this time period, enrollment will be limited to deficiency courses until all deficiencies have been satisfied.

**Graduate Course Prerequisites**
Note that there are graduate level courses that have an undergraduate course as prerequisite and that not all undergraduate courses can be taken for graduate credit.

**Student Learning Outcomes**
Students graduating from this program will:

• Develop solutions for advanced problems using appropriate skills and knowledge in computer science.
• Demonstrate advanced knowledge in an area of specialization.
• Recognize and apply state of the art techniques and tools in the field.
• Plan and conduct scholarly activities.
• Communicate effectively in both written and oral forms.
• Recognize the need for and ability to engage in life-long learning.
• Understand ethical and professional responsibilities.
• Work effectively in teams.

**Core Requirements**
All students are required to complete a core curriculum of:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP-SCI 5592</td>
<td>Design and Analysis of Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>Select two of the following:</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>CSEE 5110</td>
<td>Network Architecture I (formerly offered as COMP-SCI 5520)</td>
<td></td>
</tr>
<tr>
<td>COMP-SCI 5551</td>
<td>Advanced Software Engineering</td>
<td></td>
</tr>
<tr>
<td>COMP-SCI 5566</td>
<td>Introduction to Bioinformatics</td>
<td></td>
</tr>
<tr>
<td>COMP-SCI 5570</td>
<td>Architecture of Database Management Systems</td>
<td></td>
</tr>
<tr>
<td>COMP-SCI 5565</td>
<td>Introduction to Statistical Learning</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>COMP-SCI 5540</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>Principles of Big Data Management</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>COMP-SCI 5542</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>Big Data Analytics and Applications</td>
<td></td>
</tr>
</tbody>
</table>

**CS-Emphasis and CS-Areas of Interest**
All students are required to complete courses in a CS-emphasis and/or area of interest. The approved areas and their associated courses are:

**Bioinformatics Emphasis -**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP-SCI 5565</td>
<td>Introduction to Statistical Learning</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5566</td>
<td>Introduction to Bioinformatics</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5567</td>
<td>Machine Learning for Data Scientists</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5590NN/E&amp;C-ENGR 5316</td>
<td>Special Topics (Artificial, Neural and Adaptive Systems)</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5590SL</td>
<td>Special Topics in Electrical and Computer Engineering</td>
<td>1-4</td>
</tr>
</tbody>
</table>
Data Science Emphasis

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP-SCI 5525</td>
<td>Cloud Computing</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5540</td>
<td>Principles of Big Data Management</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5542</td>
<td>Big Data Analytics and Applications</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5543</td>
<td>Real-time Big Data Analytics</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5565</td>
<td>Introduction to Statistical Learning</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5567</td>
<td>Machine Learning for Data Scientists</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5570</td>
<td>Architecture of Database Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5574</td>
<td>Large Scale Semistructured Data Management</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5590PG</td>
<td>Special Topics In Computer Science (Probabilistic Graphical Models)</td>
<td>3</td>
</tr>
</tbody>
</table>

And others

Total Credits: 27

Database and Information Management Area of Interest [not transcripted] -

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP-SCI 5570</td>
<td>Architecture of Database Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5571</td>
<td>Distributed Database Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5572</td>
<td>Mobile Computing</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5573</td>
<td>Information Security and Assurance</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5574</td>
<td>Large Scale Semistructured Data Management</td>
<td>3</td>
</tr>
</tbody>
</table>

And others

Total Credits: 15

Networking and Telecommunications Emphasis -

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSEE 5110</td>
<td>Network Architecture I</td>
<td>3</td>
</tr>
<tr>
<td>CSEE 5111</td>
<td>Network Architecture II</td>
<td>3</td>
</tr>
<tr>
<td>CSEE 5112</td>
<td>Computer Network Design and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CSEE 5113</td>
<td>Network Routing</td>
<td>3</td>
</tr>
<tr>
<td>CSEE 5130</td>
<td>Queuing Theory and Applications</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5523</td>
<td>Capacity Planning for Service-Oriented Architectures</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5525</td>
<td>Cloud Computing</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5570</td>
<td>Principles of Digital Communication Systems</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5577</td>
<td>Wireless Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

And others

Total Credits: 27

Software Engineering and System Emphasis -

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP-SCI 5531</td>
<td>Advanced Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5551</td>
<td>Advanced Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5552A</td>
<td>Formal Software Specification</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5553</td>
<td>Software Architecture and Design</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5554</td>
<td>Software Tools and Programming Environments</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5555</td>
<td>Software Methods and Tools</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5560</td>
<td>Knowledge Discovery and Management</td>
<td>3</td>
</tr>
</tbody>
</table>

And others

Total Credits: 21
If a student desires an emphasis or area of interest other than these, a petition must be submitted to the graduate committee requesting that an emphasis or area of interest be recognized for the student’s specific degree plan. It should specifically state which courses the student wants to include in this emphasis or area of interest and it should explain why these courses together form a coherent group and how these courses fit the student’s academic goals. Students must petition before including other courses in their program of study.

Please note that many of our bioinformatics courses also count towards a MS in Bioinformatics, administered in the Department of Informatic Medicine and Personalized Health in the School of Medicine. Please contact Dr. Stan Edlavitch for more information, 1000 East 24th Street, 5th Floor, Phone: 816-235-6617, Email: edlavitchs@umkc.edu.

Degree Requirements

To earn an M.S. degree in computer science, the student must satisfy both the general master of science degree requirements of the University of Missouri-Kansas City and the requirements of the CSEE Department for either the thesis or non-thesis option as outlined below.

Specific Requirements for the Thesis Option (30 cr. hrs.):
1. Complete a minimum of 24 hours of approved COMP-SCI coursework for graduate credit with a cumulative GPA of at least 3.0.
2. Additionally, complete a minimum of six additional graduate COMP-SCI hours, including at least three hours COMP-SCI 5599. The total number of hours of COMP-SCI 5597 or COMP-SCI 5599 should not exceed six.
3. Contact a thesis advisor in the semester in which the student completes 12 hours of graduate work.
4. Present evidence of research abilities in the form of a master’s thesis resulting from enrollment in at least three hours of COMP-SCI 5599.
5. Pass a general oral examination which may cover all the work covered in the student’s graduate program.
6. Satisfy the requirements listed under the common requirements, see below.

Specific Requirements for the Non-Thesis Option (30 cr. hrs.):
1. Complete a minimum of 27 hours of approved coursework for graduate credit with a cumulative GPA of at least 3.0.
2. Additionally, complete another 3 hours of approved course work, or 3 hours of approved COMP-SCI 5597. Only 3 hours of COMP-SCI 5597 can be applied toward the degree.
3. Contact an advisor after completing 12 hours of graduate work to complete the program of study.
4. Satisfy all common requirements, see below.

Common Requirements and Limitations for both MS-CS Thesis Option and Non-Thesis Option:
1. Satisfy the core requirement:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP-SCI 5592</td>
<td>Design and Analysis of Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>Select two of the following:</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>CSEE 5110</td>
<td>Network Architecture I</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5551</td>
<td>Advanced Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5566</td>
<td>Introduction to Bioinformatics</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5570</td>
<td>Architecture of Database Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5540</td>
<td>Principles of Big Data Management (formerly offered as COMP-SCI 5590PB)</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMP-SCI 5542</td>
<td>Big Data Analytics and Applications</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMP-SCI 5565</td>
<td>Introduction to Statistical Learning (formerly offered as COMP-SCI 5590CI)</td>
<td>3</td>
</tr>
</tbody>
</table>

2. Complete a minimum of nine hours (if thesis) or twelve hours (if non-thesis) in one CS-emphasis or CS-area of interest and a minimum of six hours in another CS-emphasis or CS-area of interest.

3. Each student must have a plan of study approved by both the student’s supervisory committee and the graduate officer before the end of the semester in which the student completes 12 credit hours of graduate work.
4. No more than six credit hours total from any graduate coursework taken outside the CSEE department and from COMP-SCI 411, COMP-SCI 421A, COMP-SCI 423, COMP-SCI 457, COMP-SCI 470, and COMP-SCI 494R can be used to satisfy degree requirements. Each of these courses must be completed with a grade of "B" (3.0) or higher.

5. Courses cannot be identical to courses already taken for a prior degree.

6. No more than three hours of COMP-SCI 5597 can be used to satisfy degree requirements. All COMP-SCI 5597 hours to be applied to the master of science in Computer Science degree requirements must be approved by the CSEE Master's Committee at least six weeks before classes begin.

7. No more than one course grade below "B" or 3.0 may be applied toward the degree requirements.

Thesis Option
Master's degree candidates in computer science who decide to do the thesis option are required to demonstrate knowledge and maturity in the discipline by completing at least three hours of COMP-SCI 5599. Students may enroll in more than three hours of COMP-SCI 5599, however, only six hours combined from COMP-SCI 5597 and COMP-SCI 5599 may be applied toward the degree. The research program will be defined by the student in conjunction with the student's thesis committee. Under the direction of the thesis advisor, the student will investigate a topic of current interest in computer science and prepare a master's thesis on that topic.

The final requirement for conferral of the M.S. degree is defense of the thesis, where the supervisory committee is the examining body. The thesis must be submitted in complete typewritten form to the advisor and supervisory committee at least six weeks before the date the advanced degree is to be conferred. Also, the supervisory committee must have access to the thesis at least one week before the date of the defense. Students must comply with all rules and regulations governing theses outlined in the general catalog under General Graduate Academic Regulations and Information.

Directed Readings Courses
Up to three hours of COMP-SCI 5597 is allowed toward a master of science. Such a course must be approved in advance (i.e., before the student takes the course) by the professor supervising the course and the graduate committee. The following information must be furnished:

- Title of the course.
- Detailed syllabus for the course.
- Textbook and references.
- The manner in which the course will be conducted (i.e. meetings, assignments, etc.).
- The manner in which the students are assessed (i.e. how many exams, presentations, reports, etc.).
- The course which it replaces, if appropriate.
- Name(s) of the instructor(s).
- Name(s) of the student(s).
- Reasons for offering this course in a directed readings format.

Transfer Credit
Not more than six hours of graduate credit may be transferred from another recognized graduate school or from another academic unit within UMKC. Transfer credit may be applied toward the master’s degree requirements on the approval of the student's graduate advisor and the Master's Committee. No credit hours may be transferred when those hours have been used toward the completion of any other degree program, graduate or undergraduate. The total amount of transfer credit and credit from approved COMP-SCI 400-level classes shall not exceed six hours.

BS/MS Computer Science Program
See the BS/MS section under Computer Science in the undergraduate catalog for information about the program (p. 862).
Master of Science in Electrical Engineering

Program Description

The University of Missouri-Kansas City has created an exciting and uniquely designed program of graduate study leading to the Master of Science in Electrical Engineering. This degree offers several options: thesis or non-thesis, with the latter available with an electric power focus area. In the thesis option, the student has the opportunity to engage in research that builds upon coursework to reach the forefront in the chosen area. This degree option prepares graduates for a wide variety of future opportunities, whether it is in corporate research, product development, management or entrepreneurial endeavors. It also prepares graduates for doctoral studies. The overall goal is to put graduates into a position to be leading technology developers and innovators. The MSEE degree program provides the student with opportunities to study topics such as wireless communications, signal processing, computer architectures, digital systems, VLSI design, embedded system design, low-power chip design, image processing, computational electromagnetics, antenna theory, computer networking and neural networks. Alternately, the student can select the focus area emphasizing electric power, designed to easily fit into the schedule of full-time working engineers. The various emphasis/focus areas have been developed in consultation with industry, engineering firms and utilities. Contact info: (816) 235-1193, csee@umkc.edu.

Admission Requirements

Applicants for master’s level graduate studies in electrical and computer engineering should have a GPA of at least 3.0 on a 4.0 scale for the last 60 semester hours of relevant undergraduate coursework in Electrical Engineering and/or Computer Engineering. However, if the GPA is below 3.0 but more than 2.75, and if other academic indicators promise success in the program, rules may still allow probationary admission. The following documents are required for consideration for admission:

1. Completed application form for graduate (masters) admission.
2. Official transcripts of all college work.
3. Official results of the Graduate Record Examination (GRE) general test. The applicant must score at least 75th percentile in the quantitative portion of the GRE; a 30th percentile score in the verbal portion of the GRE is recommended.
4. For international applicants a minimum test score of 79 (IBT) or 6.5 (IELTS) is necessary. (The older TOEFL and CBT scores will no longer be acceptable.)
5. Two letters of recommendation are needed for applicants with an overall GPA less than 3.0 in the last 60 hours of their undergraduate degree program.

The complete application package is then carefully reviewed by the graduate admissions committee. The decision to admit an applicant to the graduate (MSEE) degree program with or without DISA (Dean’s International Scholarship Award) rests on this graduate admissions committee. The chair of the graduate committee communicates the recommendations of the graduate committee to the CSEE department chair, who in turn formally notifies the applicant of the decision.

Applications will be reviewed by the master’s committee when all the necessary documents are received. For full consideration for the semester indicated and priority for scholarship applications, it is recommended that completed applications be received by the following dates:

- For fall semester admission (semester starts in August):
  - U.S. students/permanent residents: June 1.
  - International students: January 15.
- For spring semester admission (semester starts in January):
  - U.S. students/permanent residents: November 1 of the preceding year.
  - International students: October 1 of the preceding year.

U.S. citizens or permanent residents may apply online at www.umkc.edu/admissions or submit application forms and required supporting materials to:

Mailing Address
University of Missouri-Kansas City
Office of Admissions
120 Administrative Center
5100 Rockhill Road
Kansas City, MO 64110-2499

Their telephone number is (816) 235-1111 and their e-mail address is admit@umkc.edu.

International students can apply online at www.umkc.edu/isao or fax application to 573-884-4894 and send all supporting documents to:

Mailing Address
International Student Affairs Office
University of Missouri-Kansas City
Student Success Center, G-04
5000 Holmes Street
Kansas City, MO 64110-2499

Their telephone number is (816) 235-1113 and their e-mail address is isao@umkc.edu.

Prospective students can request additional information or request information regarding their application by contacting UMKC at the above addresses or by sending e-mail to: csee@umkc.edu.

**Acceptance or Denial**

After thoroughly considering an applicant’s record, one of the following actions will be taken:

**Normal Acceptance**

The student is accepted unconditionally.

**Normal Acceptance with Pre-program Requirements**

This category applies to an otherwise qualified applicant who has a bachelor of science degree from an approved program, but not in electrical engineering, computer engineering, or a similarly named engineering discipline. The student will be notified in writing of any make-up requirements specified by the master’s committee.

**Probationary Acceptance**

Applicants with marginal credentials may be admitted conditionally. They will have to receive a B or better in each course in the first semester of graduate coursework. In addition, make-up requirements may be set forth by the master’s committee.

**Non-Acceptance**

The student is not admitted. The student will be notified in writing of the admission denial. The letter may specify under what conditions a future application would be more favorably considered.

The master’s committee is in charge of handling procedural issues related to the M.S. program in electrical engineering. Any request for exception to the rules should be handled as described below related to petitioning procedures.

**Starting the Program**

When accepted into the program, the student’s first contact is with the electrical engineering principal graduate advisor. At this initial meeting, a review will be made of the student’s status in the program and the student will be required to provide a tentative program of study within the first semester. Such a program should reflect the prerequisite courses that have been prescribed and that may have to be taken prior to taking courses for graduate credit.

The most immediate concern is for the courses to be taken in the first semester. The principal graduate advisor will help the student select those initial courses. Within the first semester, the student will be assigned an academic advisor who will be the primary contact for the student until the student graduates under the non-thesis option. If the student decides to follow the thesis option, a thesis advisor will replace the academic advisor. In either case, it is the responsibility of the student to devise, after consultation with their advisors, a program of study using the degree requirements and the course planning worksheet. This should be submitted to the graduate officer, usually by the end of the second semester. The master’s committee is in charge of handling procedural issues related to the M.S. program in electrical engineering. Any request for exception to the rules should be handled as described below related to petitioning procedures.

**Student Learning Outcomes**

Upon graduating, students will have demonstrated that they can apply the core technologies from their chosen concentrations or focus areas within electrical engineering and/or computer engineering. They will have developed an analytical mindset and acquired a skill set with engineering tools to design and implement solutions to overcome engineering challenges in society. They will also have had an opportunity for in-depth course work in the areas of Computer Engineering, VLSI and Embedded Systems, R.F./Electromagnetics and Mixed-Signal Systems, Telecommunications, Networking, Digital Signal and Image processing, Power Systems Engineering.

**Degree Requirements**

**Concentration Areas**

All students are required to complete courses in a concentration or focus areas. The approved EE-concentration (or focus) areas and the associated courses are listed below. All curricular designations are E&C-ENGR, unless indicated.
### Computers, VLSI, and Embedded Systems

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>E&amp;C-ENGR 5534</td>
<td>Computer Arithmetic</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5535</td>
<td>Hdl-Based Digital Systems Design</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5528</td>
<td>Advanced Embedded Systems</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5542</td>
<td>Introduction to VLSI Design</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5635</td>
<td>Vlsi Systems Design</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5642</td>
<td>Advanced VLSI Design</td>
<td>3</td>
</tr>
</tbody>
</table>

And others

### RF/Electromagnetics and Mixed Signal Systems

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>E&amp;C-ENGR 5513</td>
<td>Advanced Principles of RF/Microwave Engineering</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5518</td>
<td>Advanced Radar Systems &amp; Techniques</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5533</td>
<td>Analog Integrated Circuit Design</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5537</td>
<td>Mixed-Signal Integrated Circuit Design</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5572</td>
<td>Antennas &amp; Propagation For Wireless Systems</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5606</td>
<td>Electromagnetic Scattering and Antenna Theory</td>
<td>3</td>
</tr>
</tbody>
</table>

And others

### Communications and Networking

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>E&amp;C-ENGR 477</td>
<td>Introduction to Wireless Networking</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5570</td>
<td>Principles of Digital Communication Systems</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5577</td>
<td>Wireless Communications</td>
<td>3</td>
</tr>
<tr>
<td>CSEE 5110</td>
<td>Network Architecture I</td>
<td>3</td>
</tr>
<tr>
<td>CSEE 5112</td>
<td>Computer Network Design and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CSEE 5113</td>
<td>Network Routing</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5318</td>
<td>Dynamical Systems and Complex Networks</td>
<td>3</td>
</tr>
</tbody>
</table>

And others

### Signal & Image Processing, and Biomedical Applications

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>E&amp;C-ENGR 5580</td>
<td>Digital Signal Processing</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5316</td>
<td>Artificial Neural and Adaptive Systems</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5586</td>
<td>Pattern Recognition</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5590BP</td>
<td>Special Topics In Electrical And Computer Engineering (Biomedical Signal Processing)</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5590BB</td>
<td>Special Topics in Electrical and Computer Engineering (Machine Learning with Biomedical Applications)</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5590IP</td>
<td>Special Topics In Electrical And Computer Engineering (Digital Image Processing)</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5590B</td>
<td>Special Topics In Electrical And Computer Engineering (Biomedical Imaging)</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5590CI</td>
<td>Special Topics in Electrical and Computer Engineering (Computational Intelligence)</td>
<td>3</td>
</tr>
</tbody>
</table>

And others

### Focus Areas in Electric Power

The department recognizes a focus area in **Electric Power**. The available courses in this *focus* area are as listed below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>E&amp;C-ENGR 436</td>
<td>Power Electronics I</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5536</td>
<td>Power Electronics II</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5556</td>
<td>Instrumentation and Control</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5558</td>
<td>Automatic Control System Design</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5560</td>
<td>Electric Power Distribution Systems</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5567</td>
<td>Power Systems II</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5568</td>
<td>Economics of Power Systems</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 5569</td>
<td>Reliability of Electric Power Systems</td>
<td>3</td>
</tr>
</tbody>
</table>
Degree Requirements

Beginning Fall 2013 all MSEE students (both thesis and non-thesis options) are required to complete the following course requirements:

1. The student has to complete the requirement of 4 courses from one of the 5 areas (4 concentration and one focus area). The list of these fundamental courses from each concentration/focus area is given below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>E&amp;C-ENGR 5642</td>
<td>Advanced VLSI Design (Computers, VLSI and Embedded Systems)</td>
<td>3</td>
</tr>
<tr>
<td>or E&amp;C-ENGR 5528</td>
<td>Advanced Embedded Systems</td>
<td></td>
</tr>
</tbody>
</table>

Communications and Networking

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>E&amp;C-ENGR 5570</td>
<td>Principles of Digital Communication Systems</td>
<td>3</td>
</tr>
<tr>
<td>or E&amp;C-ENGR 5577</td>
<td>Wireless Communications</td>
<td></td>
</tr>
</tbody>
</table>

RF/Electromagnetics & Mixed Signal Systems

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>E&amp;C-ENGR 5513</td>
<td>Advanced Principles of RF/Microwave Engineering</td>
<td>3</td>
</tr>
</tbody>
</table>

Signal & Image Processing, and Biomedical Applications

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>E&amp;C-ENGR 5580</td>
<td>Digital Signal Processing</td>
<td>3</td>
</tr>
</tbody>
</table>

Focus Areas in Electric Power

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>E&amp;C-ENGR 5567</td>
<td>Power Systems II</td>
<td>3</td>
</tr>
</tbody>
</table>

2. The student now has to further choose 2 courses (with the E&C-ENGR designator) from the list in the above concentration/focus areas. (There is room for flexibility on how these ECE courses may be chosen.)

3. The student now has the following options to exercise for either thesis and non-thesis option areas:

   a. Student may take all the remaining 4 courses that are cross-listed with a CSEE designation and does not need any approval from the graduate (MSEE) committee (non-thesis option).

   b. Student can take all the remaining 4 courses outside the MSEE degree program in which case they have to be approved by the graduate (MSEE) committee (non-thesis option).

   c. Student can take up to 2 courses, and depending on advisor’s input, one of these two courses can be a directed reading course (thesis option).

Note: a MSEE thesis is a total of 6 credit hours (typically equivalent to 2 instructional/lecture courses).

For any option (thesis or non-thesis) the total number of credit hours needed for completion of the MSEE degree program is 30.

The preceding change in requirements towards completion of the MSEE degree program was approved and voted by the ECE graduate faculty on December 10, 2012. The changes to the degree program requirements were then further approved by the CSEE faculty in January 2013. These changes will be effective Fall 2013.

Thesis Option

The Comprehensive Final Examination is required of all candidates for the Master of Science degree under the thesis option. It is arranged by the graduate faculty advisor. It is to be conducted prior to the deadline date established by the Graduate School for the semester of intended graduation. Prior to the date of the examination, each member of the committee is furnished a copy of the candidate’s final thesis for review and discussion at the time of the final examination.

If pursuing the thesis option, the thesis must be submitted in complete typewritten form to the advisor and supervisory committee at least six weeks before the date the advanced degree is to be conferred. Also, the supervisory committee must have access to the thesis at least one week before the date of the defense. Students must comply with all rules and regulations governing theses outlined in the general catalog under General Graduate Academic Regulations and Information.
Directed Readings
Up to three hours of E&C-ENGR 5597 is allowed toward the Master of Science in electrical engineering. Such a course must be approved in advance (i.e., before the student takes the course) by the professor supervising the course and the graduate committee. The following information must be furnished:

- Title of the course.
- Detailed syllabus for the course.
- Textbook and references.
- The manner in which the course will be conducted (i.e. meetings, assignments, etc.).
- The manner in which the students are assessed (i.e. how many exams, presentations, reports, etc.).
- The course which it replaces, if appropriate.
- Name(s) of the instructor(s).
- Name(s) of the student(s.)
- Reasons for offering this course in a directed readings format.

BS/MS Electrical and Computer Engineering/Electrical Engineering
See the BS/MS section under Electrical and Computer Engineering in the undergraduate catalog for information about the Program.
Doctoral Studies in Computer Science or Electrical Engineering

The Department of Computer Science Electrical Engineering also participates in the Ph.D. program of the University of Missouri-Kansas City. This program is administered through the School of Graduate Studies at the University of Missouri-Kansas City and requires a student to select both a primary discipline and a co-discipline. Many doctoral students choose both primary and co-disciplines in our department or the School of Computing and Engineering, but other disciplines can be taken as well. Three such disciplines are housed in our department:

- Computer Science
- Electrical and Computer Engineering
- Telecommunication and Computer Networking

For more information, please refer to the School of Graduate Studies in this catalog.

Financial Assistance for Doctoral Students

Graduate assistantships are available to prospective doctoral students, but are highly competitive. Currently, most full-time Ph.D. students in the CSEE department are supported either as a graduate assistant or as graduate research assistant, or as graduate teaching assistant.

Doctoral students already in the program are eligible to apply for several fellowships available from the School of Graduate Studies. Check the School of Graduate Studies Web site at www.umkc.edu/sgs/financial.asp (http://www.umkc.edu/sgs/financial.asp) for additional information.
Dual Degree Programs

The School of Computing and Engineering collaborates with other institutions in our dual-degree program which leads to undergraduate degrees in both a liberal arts major and a professional engineering, computer science or information technology degree. Students enter UMKC SCE following three (or four) years at their first institution. Students who follow the guidelines and meet the admission requirements will earn a degree from their first institution and a degree from UMKC following two years of study at SCE.

Students who complete the dual degree program experience the benefits of a liberal arts education, allowing them to become better communicators, develop strong study skills and explore additional academic interests, while also finishing a professional degree program.

Requirements

Students must complete the following requirements prior to enrolling at UMKC. Additional guidance regarding specific curriculum is available for dual degree students.

- Completion of a minimum of 60 credit hours of coursework
- Cumulative GPA greater than 3.00
- Calculus through differential equations
- One year of calculus-based physics
- One semester of general chemistry
- One course in computer science
- One constitution course in US or Missouri government
- Courses to satisfy the General Education requirements.

Current Dual-degree Partnerships

- Baker University, Baldwin, KS
- Blackburn College, Carlinville, IL
- Eureka College, Eureka, IL
- Fontbonne University, St. Louis, MO
- Maryville University, St. Louis, MO
- Missouri Western State University, St. Joseph, MO
School of Dentistry

School of Dentistry (http://www.umkc.edu/virtualtour/sod.asp)
650 E. 25th Street
(816) 235-2100
Fax: (816) 235-2157
(816) 235-2080 (Admissions)
(800) 776-8652 (Toll-free admissions)
(816) 235-2050 (Division of Dental Hygiene)
dentistry@umkc.edu
http://www.dentistry.umkc.edu/

Dean:
Marsha A. Pyle contact information (https://cf1.umkc.edu/intapps/lookup/?LastName=pyle)

Associate Dean for Academic Affairs:
Pamela R. Overman contact information (https://cf1.umkc.edu/intapps/lookup/?LastName=overman)

Director of Business Affairs:
Jeffrey L. Primos contact information (https://cf1.umkc.edu/intapps/lookup/?LastName=primos)

Associate Dean for Clinical Programs:
Linda Wells contact information (https://cf1.umkc.edu/intapps/lookup/?LastName=wells)

Assistant Dean for Community Relations and Communication:
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• General Information and History (p. 911)
• Vision and Mission Statements (p. 912)
• Facilities (p. 914)
• Research Programs (p. 913)
• Degrees Offered (p. 919)
• Academic/Student Support Services (p. 915)
• Academic Standards (p. 916)
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Ahmed Zarrough Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=zarrough); clinical assistant professor; B.D.S. (Tripoli University Faculty of Dentistry); Doctor of Science, Certificate of Advanced Graduate Studies in Advanced Education in General Dentistry (Boston University).
Undergraduate Degrees:
• Division of Dental Hygiene
  • Dental Hygiene Clinical Entry Level program
  • Dental Hygiene Degree Completion Program

Graduate Degrees:
• Master of Science in Oral and Craniofacial Sciences
• Master of Science in Dental Hygiene Education
• Oral and Craniofacial Sciences Interdisciplinary Ph.D.
• Advanced Education Programs
  • Advanced Education in General Dentistry
  • Endodontics
  • Orthodontics and Dentofacial Orthopedics
  • Periodontics

Professional Programs:
• Doctor of Dental Surgery Program

Biological Sciences Courses
BIO-SCI 5700 Biomaterials Teaching Credits: 2
Through this course, students will acquire teaching experience in graduate and undergraduate biomaterials.

BIO-SCI 5706 Growth and Development I Credit: 1
A course designed to teach the general principles of normal and abnormal physical, psychological and social growth and development of children and adolescents. The growth and development of the craniofacial structures is emphasized. The diagnosis of malocclusions is stressed. Consideration is given to possible approaches to their treatment.

BIO-SCI 5707 Growth and Development II Credits: 1-2
A comprehensive study of the genetical aspects of growth and development with special analysis of the molecular control of these processes by both intrinsic and epigenetic factors.
Prerequisites: BIO-SCI 5706.

BIO-SCI 5710 Genetics and Biochemistry of Cranial Facial Biology Credits: 2
Biochemistry of oral structures and the effect of oral diseases on these structures. This course may not be used to satisfy Cell Biology and Biophysics or Molecular Biology and Biochemistry discipline-specific requirements for the Interdisciplinary Ph.D. programs.

BIO-SCI 5739 Biomaterials for the Dental Specialist Credit: 1
Discussion of basic biomaterials principles and terminology including explanation of physical, mechanical and surface chemical properties, metallurgy, polymer chemistry, ceramics and composites. Clinical examples of how these principles apply to Prosthodontics, Endodontics and Orthodontics will be presented. Students cannot take both this course and BIO-SCI 5742 for credit.

BIO-SCI 5740 Oral Pathology I Credits: 2
A study of the clinical and histopathologic features of oral diseases, including inflammatory, degenerative, metabolic, and neoplastic diseases and developmental disturbances.

BIO-SCI 5742 Biomaterials for the Restorative and General Dentist Credits: 2
A thorough discussion of basic biomaterials principles and how they apply to the practice of general and restorative dentistry. Students cannot take both this course and BIO-SCI 5739 for credit.
BIO-SCI 5743 Advanced Seminar in Dental Biomaterials Credits: 1-2
The use and behavior of dental biomaterials in Pediatric Dentistry, Prosthodontics, Orthodontics, and Restorative Dentistry will be discussed in depth. Current basic and clinical literature related to these areas will be discussed and research information to improve dental practice will be presented. 
Prerequisite: BIO-SCI 5739 (or BIO-SCI 5742).

BIO-SCI 5747 Research Instrumentation Used in Dental Biomaterials Credits: 2-4
A discussion and laboratory use of instrumentation employed in dental biomaterials research. Practical hands-on experience will include calibration and use of specific research equipment including the Instron, metallurgical mounting and polishing equipment, measuring microscope, metallograph, and contact angle goniometer.

BIO-SCI 5750 Special Problems in Dental Biomaterials Credits: 2-4
The student will select or be assigned a special research problem including appropriate literature reviews of a special topic in dental biomaterials. Emphasis will be placed on the correlation between basic and clinical research. The design and conduct of clinical research will be discussed.

BIO-SCI 5751 Elements of the Scientific Method Credits: 1-2
Through individualized instruction with thesis committee chair, student will conduct a literature review in preparation for developing a research question leading to the thesis research proposal. Students will select and rotate through a minimum of four laboratories in the Department of Oral Biology conducting a short research project in each. At the end of the semester, a report is required reviewing the research project and the instrumentation in each laboratory. Students are also required to attend the weekly Department of Oral Biology Seminar Series and the monthly Professional Development Seminar Series. Research presentations cover a variety of biological, engineering and psychological disciplines relevant to oral science education and the oral health care profession. Presentations will be by faculty, students, and invited guest lecturers.

BIO-SCI 5752 Research Methods in Oral and Craniofacial Sciences Credits: 1-5
Student will write the thesis research proposal in consultation with committee chair and members plus obtain appropriate IRB and/or IACUC approvals. For the MS degree qualifying exam, the student will write the research proposal, present the research proposal at a committee meeting, and answer related questions. Following the successful completion of the qualifying exam, the research proposal is the basis of the MS thesis project. As the student identifies a research focus for the dissertation project, they will begin reviewing the literature.

BIO-SCI 5759 Special Problems in Pharmacology Credits: 2
Pharmacologic and therapeutic problems of special interest in the practice of dentistry.

BIO-SCI 5760 Physiology of Oral Mineralized Tissues Credits: 2
A study of the physiology of the oral hard tissues with emphasis on the mechanisms of the growth, remodeling, and healing of maxillomandibular bones and on the mechanism of dentinogenesis. This course may not be used to satisfy Cell Biology and Biophysics or Molecular Biology and Biochemistry discipline-specific requirements for the Interdisciplinary Ph.D. program.

BIO-SCI 5780 Teaching Of Dentistry Credits: 1-2
A consideration of the problems of teaching in dental schools. Each department of the School of Dentistry will report on its teaching methods. The student will observe lectures and laboratory teaching in each department.

BIO-SCI 5790 Directed Research In Oral and Craniofacial Sciences Credits: 1-6
Student utilizes beginning research skills to design, conduct and report an individual research project under the direction of the faculty.

BIO-SCI 5799 Research And Thesis Credits: 1-9
The satisfactory completion of an original research project. Results of the research and critical review of the pertinent literature are incorporated into a thesis. Credit is awarded after the student's thesis is successfully defended and accepted by the School of Graduate Studies.

BIO-SCI 5801 Readings in Immunology Credits: 1-3
A detailed study of special topics in immunology. Specific topics to be arranged with the instructor. This course may be repeated by doctoral students for a maximum of 3 credit hours.
Prerequisites: LS-MCRB 435.

BIO-SCI 5802 Immunopathology Credits: 2
A detailed study of selected topics in immunopathology with emphasis on physicochemical barriers such as cutaneous and mucosal immune systems.
Prerequisites: LS-MCRB 435.

BIO-SCI 5805 Molecular Biology of Oral Microflora Credits: 2-3
Lecture and discussion. The course will provide an overview of the ecology of oral microbial flora and its role in oral health and disease. Students will examine the taxonomy and ecology of normal and pathogenic oral microbial flora, acquisition of the oral microbiota and the formation of dental plaque as a biofilm. The course will also explore other aspects of microbial biology, such as: bacterial virulence factors and pathogenesis; host defense mechanisms; systemic complications of periodontal disease; antibiotics and antibiotic resistance. The second part of the course will review the effect of recent advances in molecular biology and protein biochemistry on oral diagnosis and treatment.

BIO-SCI 5830 Structural Characterization of Dental Biomaterials Credits: 3
A detailed study of the techniques commonly used to determine the composition and structure of dental biomaterials. Surface and near-surface characterization techniques will be emphasized. The student will be expected to complete laboratory projects on the scanning and transmission electron microscopies available in the School of Dentistry.
**Dentistry Courses**

DENT 6305 Operative Dentistry I Lecture Credit: 1
An introduction to the prevention and principles of the restorative treatment of dental caries.

DENT 6305L Operative Dentistry I Laboratory Credits: 2
Restorative procedures discussed in DENT 6305 are performed on laboratory manikins.

DENT 6306 Transitions: An Introduction to the Profession and Practice of Dentistry Credits: 0.5
This course is the first in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the knowledge, skills and values of ethics, professionalism and practice management. The courses use self-assessment and strategic planning as foundations and lead the students through identification of personal and professional aspirations, and culminate in building each student's competence in dental practice management.

DENT 6307 Transitions: Introduction to the Profession & Practice of Dentistry II Credits: 0.5
This course is the second in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course builds on strategic planning foundation to gain an understanding of personal financial management in the context of personal and professional goals in the field of dentistry.

DENT 6310C Patient Care I Credits: 3
This course introduces the dental student to the foundation knowledge and skills and values for the provision of oral health care. This includes infection control, cubicle set-up and breakdown, dental assisting, patient/operator positioning, patient vital signs, radiographic techniques, patient communication and basic concepts of oral health and disease. Students will assist third and fourth year students in various clinical areas after appropriate preparation, and will provide oral hygiene instruction for elementary age students.

DENT 6312 Dental Behavioral Science I Credits: 1-2
An introduction to the basic principles of behavioral science as they relate to oral self-care and professional practice. Topics include basic principles of human behavior, adherence, motivational interviewing, dental fears, chronic orofacial pain, and conflict management. Students will complete an in-depth motivational case report and a communication competency exam with selected patients.

DENT 6313 Applied Biochemistry Credits: 4
This is a course geared to the biomedical foundation knowledge of dental students. The course is composed of six sections focused on clinically important topic areas each cumulating with a clinical presentation. Course content will intentionally emphasize new knowledge areas in cancer, inflammation, genetic diseases, metabolic diseases, mineralized tissues in health and disease, oral health, hormone actin, and blood coagulation/wound healing.

**Prerequisites:** an Undergraduate Biochemistry course.

DENT 6314C Patient Care II Credits: 2
This course builds on the skills introduced in DENT 6310C with a review and the continuation of the clinical rotations. In addition, students will learn the steps of a basic oral diagnosis, and will demonstrate their understanding with graded peer exams and by performing selected portions of a diagnosis on two clinic patients with the assistance of a 3rd or 4th year dental student.

DENT 6315C Patient Care III Credits: 3
This course introduces preventive theory necessary to provide patient care. Students are introduced to fundamental clinical procedures including dental deposits, gingival assessment, identification and classification of periodontal diseases, and periodontal probing. The information learned in this course continues in fall, second year (Patient Care IV) where student are introduced to basic periodontal instrumentation skills to assess and treat simple patients.

DENT 6316 Dental Morphology Credits: 3
This lecture/laboratory course introduces the student to the anatomy of the oral cavity and structures of the stomatognathic system. A thorough review of dental anatomy and dental terminology of the primary and permanent dentition will be presented. The students' knowledge of dental morphology will be reinforced by constructing wax models of permanent dentition.

DENT 6317 Fundamentals of Occlusion and Fixed Prosthodontics Credits: 3
This lecture laboratory course will review the fundamental principles of dental occlusion, the anatomy and function of the stomatognathic system, and foundational knowledge of fixed prosthodontics.

DENT 6319 Ethics and Professionalism Credit: 1
An introduction to basic concepts of ethics and professionalism. Systems of ethical decision making are introduced and applied in the context of oral health care and interprofessional practice. Students will explore their own ethical values and apply this knowledge to issues in professional education.

DENT 6328 Clinical Decision Making in Dentistry Credits: 1-2
An experiential course that uses current controversies to facilitate development of skills needed for making valid decision in clinical dentistry. Students will apply basic principles of database searching, research design and methodology to the critical analysis of contemporary dental literature. This one-hour course will: 1) Provide you with sufficient information to perform week on the portions of the national boards that deal with research design and methodology; and, 2) give you skills sufficient to search for, locate, and evaluate valid information related to clinical questions in contemporary dentistry.
DENT 6350 Introduction To The Histopathology Of Oral Tissues Credits: 2
A comparison of the microscopic anatomy of healthy and diseased oral tissues.

DENT 6352 Patient Care IV Credits: 1-3
This course is a continuation of DENT 6310C, DENT 6314C, and DENT 6315C which introduces preventive theory and the instrumentation skills necessary to provide patient care. Students are introduced to fundamental clinical procedures including plaque control, gingival assessment, and periodontal probing. Review of radiology, radiographic technique and interpretation, assisting skills, diagnosis and periodontal instrumentation will be implemented in this course.

DENT 6390 Dental Research Experience Credit: 1
This independent study course focuses upon experience gained in both an area of dental research as well as the process of research in working with an established dental researcher.

DENT 6402 Transitions: Introduction to the Profession and Practice of Dentistry III Credits: 0.5
This course is the third in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course builds on strategic planning foundation established in year one to gain an understanding planning for development of a dental practice.

DENT 6403 Transitions: Introduction to the Profession & Practice of Dentistry IV Credits: 0.5
This course is the fourth in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course continues the strategic planning framework as the dental practice business plan is developed. The focus for this course is on managing the finances of a dental practice.

DENT 6410 Operative Dentistry II Lecture Credit: 1
A continuation of DENT 6305. Principles of cavity preparation, materials and techniques are stressed.

DENT 6410L Operative Dentistry II Laboratory Credits: 2
A continuation of DENT 6305L. Restorative procedures are performed on laboratory manikins and extracted teeth.

DENT 6411 Operative Dentistry III Lecture Credit: 1
A continuation of DENT 6410.

DENT 6412 Introduction to Oral Surgery & Pain Management I Credit: 1
This course introduces students to foundational concepts of oral surgery and pain management. The course consists of lectures, demonstration and pre-clinical practice and simulation in the safe and effective use of local anesthetics in dentistry and basic intraoral surgical procedures. This course includes patient assessment for intraoral procedures, and instrumentation and techniques required to anesthetize a patient and extract teeth. Students will participate in practical experiences to begin to build skills in the necessary techniques to manage patient’s pain and perform basic surgical procedures.

DENT 6414 Pathology I Lecture Credits: 4
The general etiology of disease; circulatory and metabolic disorders; degenerative processes; inflammation; infection and immunity; tumors; and organ system pathology.

DENT 6415 Pathology II Credits: 2
A study of developmental defects, inflammatory diseases, and neoplasia of the oral region.

DENT 6416 Complete Removable Prosthodontics Credit: 1
This course will introduce the dental student to concepts and procedures involved in the rehabilitation of the completely edentulous patient. Information presented will include proper clinical examination techniques, an evaluation of the findings and their impact on treatment and treatment options. The student will become familiar with the clinical steps involved in the fabrication of complete dentures and the rationale supporting these procedures. Laboratory steps as they relate to clinical treatment procedures will also be discussed. There will be additional information presented regarding single complete dentures, immediate dentures, overdentures, implant-retained complete dentures, and rebasing and relining techniques.

DENT 6416L Complete Removable Prosthodontics I Laboratory Credits: 2
This course will introduce the student to the clinical and laboratory steps involved in the fabrication of complete dentures. Students will learn how to manipulate the materials involved as well as indications for their usage. The course will be structured to closely resemble the clinical experience in concept and techniques where feasible. The goal is to teach the skills necessary to manage edentulous patients and also to teach in detail the entire process of complete denture fabrication. This will enhance overall dental skills and provide a knowledge base with which to critically evaluate laboratory procedures and results. This laboratory course provides the student the opportunity to acquire the foundational skills, which must be mastered before clinical competency, can be attained. A goal of the course is to provide the opportunity for the student to acquire the hand/eye skills, which are necessary to treat the edentulous patient in a clinical setting.

DENT 6417 Removable Partial Prosthodontics Credit: 1
The study of the terminology, design, theory, and basic procedures in removable partial denture construction in addition to diagnosis and treatment planning will be stressed through the lectures.
DENT 6417L Removable Partial Prosthodontics Laboratory Credits: 2
In the laboratory the students will learn to plan, design, and prepare the mouth for a prosthesis. They will demonstrate understanding of concepts and methods by applying them to the solution of problems. The student will: develop critical thinking and problem solving related to diagnosis, planning and treatment; make decisions based on current empirical and published evidence; make custom trays for final impression, and record bases and wax rims for recording jaw relationship.

DENT 6420 Periodontics I Credits: 2
It is the scope of this course to introduce the basic disease mechanisms involved in the evolution of the inflammatory periodontal lesion; i.e., the interaction of the host tissues with the oral microbial flora. The course will cover the entire range of possible periodontal diseases, ranging from simple marginal gingivitis to AIDS related necrotizing ulcerative periodontitis. Further, the course will continually reinforce the science of periodontology and its overwhelming relationship to the clinical practice of periodontics.

DENT 6422 Fixed Prosthodontics I Lecture Credit: 1
This course is designed to provide the foundation knowledge needed by the novice to formulate clinical judgments in the areas of treatment planning, tooth preparation, and the selection and use of dental biomaterials for the restoration of single teeth with fixed prosthodontic restorations. The topics covered also include provisional restorations, impressions materials and technique, dental cements, and laboratory aspects involved in the fabrication of cast gold crowns.

DENT 6422L Fixed Prosthodontics I Laboratory Credits: 2
The second course in the fixed prosthodontic curriculum is designed to provide foundation knowledge needed by the novice to formulate clinical judgments in the areas of treatment planning, tooth preparation, and the selection and use of dental biomaterials for the restoration of missing teeth with fixed partial dentures and implants.

DENT 6423 Fixed Prosthodontics II Lecture Credit: 1
The second course in the fixed prosthodontic curriculum is designed to provide foundation knowledge needed by the novice to formulate clinical judgments in the areas of treatment planning, tooth preparation, and the selection and use of dental biomaterials for the restoration of missing teeth with fixed partial dentures and implants.

DENT 6423L Fixed Prosthodontics II Laboratory Credits: 2
The second laboratory course in fixed prosthodontics is focused on the replacement of missing teeth with fixed partial dentures and implant restoration. Projects build the skills to begin development of clinical competence in fixed partial dentures and implant restorations.

DENT 6424 Dental Management of the Medically Complex Patient Credits: 2
This course focuses on the understanding of medical conditions and compromised states that patients present with, enabling the clinician to develop dental treatment plans that are safe and compatible with their medical status.

DENT 6426 Oral Radiology Lecture Credits: 2
Radiation physics, radiation biology, quality assurance, imaging principles, radiation hygiene, radiographic interpretation and techniques of intra-oral survey are presented.

DENT 6429 Dental Behavioral Science II Credit: 1
This course builds upon the foundational material with a focus on dealing with challenging patients and managing professional stress. Students will complete an in-depth anxiety management project and communication competency exam with selected patients.

DENT 6431 Pediatric Dentistry I Lecture Credit: 1
The overall goal of this didactic course is to provide the student with the fundamental knowledge necessary to provide comprehensive dental care to pediatric patients. In addition, this course strives to develop an attitude towards learning such that the student will seek opportunities to further his/her knowledge and skills in pediatric dentistry subsequent to graduation. Finally, this course is intended to sensitize students to their responsibility as health care providers for the children in their community.

DENT 6435 Endodontics I Lecture Credit: 1
An introductory course in endodontics emphasizing pulp and periapical biology and pathology. Extra emphasis will be placed on endodontic diagnosis of non-odontogenic facial pain, problems with anesthesia in endodontics and treatment planning.

DENT 6436 Orthodontics: Growth And Development Credit: 1
Certain malocclusions and dental deformities can occur due variations in growth and normal developmental process. In order to treat and understand these problems, an in-depth and through understanding of craniofacial growth and development is necessary. Understanding how and when the face and head is actively growing will enable the clinician to redirect facial growth to reduce the severity of forming skeletal/ dental malocclusions. Since orthodontic treatment may involve the modification and/ or manipulation of skeletal growth, it is important not only to understand dental development but also physical, physiologic and psychosocial development. This course is designed to address these needs.

DENT 6439 Medical Emergencies in the Dental Office Credit: 1
The purpose of this course is to comprehensively review the management of common medical emergency situations that a dentist is likely to encounter in the dental office. In this course, the students will gain a thorough understanding of the preventive measures and appropriate response to medical emergencies including the appropriate use of the Emergency Medical System. Moreover, pertinent information regarding the patho-phiology associate with common medical emergencies will be discussed.
DENT 6440 Introduction to Oral Surgery & Pain Management II Credit: 1
This course builds on the fundamental concepts in oral surgery and pain management presented in Dent 6412 to prepare students for patient care in oral surgery and management of pain for provision of dental care. The lectures will focus on treatment needs of the medically compromised surgical patient, ability to safely and adequately deliver local anesthesia, non-pharmacological management of pain as well as OTC and prescription medications for pain management. The course will also focus on appropriate case selection for a general dentist. In the pre-clinical lab portion of the course, students will participate in exodontia simulation and local anesthesia administration.

DENT 6442 Endodontics II Lecture Credit: 1
A continuation of the study of endodontics emphasizing non-surgical endodontology, surgical endodontology and post-endodontic treatment.

DENT 6442L Endodontics Laboratory Credits: 2
The preparation and filling of root canals of extracted teeth in the laboratory setting.

DENT 6460C Review of Pre-Clinical Dentistry Credits: 0.5
A combination of online lectures, selected readings and independent study designed to reinforce and integrate concepts contained in the pre-clinical dental curriculum.

DENT 6501C Intro to Comprehensive Patient Care Credits: 1-10
The purpose of this course is to introduce the student to the clinical environment and to familiarize him/her with comprehensive patient care. In addition, it allows the student to develop and interpret basic diagnostic aids that enable him/her to arrive at a diagnosis and treatment outline, the beginning steps of comprehensive care. Patient care is provided following the outlined treatment plan. The student will apply the principles/concepts of patient care. Students begin treatment of a "family" of patients under faculty supervision.

DENT 6502 Grand Rounds I Credit: 1
Students prepare to develop and present oral reports typically given at professional meetings such as case presentations, table clinics, research reports or presentations of new techniques (such as in Table Clinic requirements or Senior Grand Rounds). This course will expand on the student's basic knowledge of critical review of scientific literature and information literacy. Cases and problems in dentistry and oral health will be the context for identification and application of current valid scientific literature. This course seeks to foster an attitude of critical analysis and commitment to lifelong learning.

DENT 6509C Comprehensive Patient Care I Credits: 1-10
Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist. This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skills through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6510C Comprehensive Patient Care II Credits: 1-10
Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist. This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skills through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6514 Pathology III Lecture Credit: 1
Continued study of pathological conditions of the oral region with emphasis on clinical signs and symptoms.

DENT 6515 Periodontics II Credit: 1
The overall goal of this course is to help the pre-doctoral students to recognize periodontal disease and treatment plan the needed periodontal therapy. Specific goals are to enhance the student's knowledge of the surgical aspects of periodontal therapy, and the relationship of periodontal disease and its treatment to the overall dental treatment plan.

DENT 6518 Transitions: Introduction to the Profession & Practice of Dentistry V Credit: 1
This course is the fifth course in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course continues the strategic planning framework and focuses on practice building strategies.

DENT 6520 Transitions: Introduction to the Profession & Practice of Dentistry VI Credit: 1
This course is the sixth course in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course continues with the strategic planning framework and focuses on the skills, knowledge and attitudes necessary for the day to day leadership of a dental practice.

DENT 6521 Oral Surgery III Credit: 1
This course is a continuation of the principles and techniques in Oral Surgery Pain Management II, but now relates to more advanced forms of oral surgical patient care. The areas to be covered are the diagnosis, treatment planning and management of impacted teeth, surgical complications, pre-prosthetic surgery, maxillary sinus in disease/dentoalveolar surgery, odontogenic infections, odontogenic cysts and odontogenic tumors afflicting the maxillofacial structures.

DENT 6521C Periodontics Clinical I Credits: 1-2
Clinical application of those principles taught in preceding terms.
DENT 6522 Oral Surgery IV Credit: 1
This course is a continuation of DENT 6521 Oral Surgery III. This course is structured to help the student acquire a basic understanding of the advanced aspects of the specialty of Oral and Maxillofacial Surgery. This includes the process of diagnosis, surgical and adjunctive management of diseases, deformities and malformations of the oral cavity, jaws and associate structures. Moreover, this course also covered principles and techniques of sedation used in oral and maxillofacial surgery.

DENT 6524 Principles of Oral Medicine and Diagnosis Credit: 1
This course expands upon the student doctor's knowledge of oral medicine, diagnosis, and pathology, and its interrelationship at times with systemic disease. Dental management, treatment and the appropriate use of consultations and referrals are emphasized.

DENT 6526 Orthodontics I Credit: 1
Orthodontics is a course designed to introduce the student to the field of orthodontics. The lecture will introduce the student to basic orthodontic terminology, description, diagnosis, and mechanotherapy. This course will prepare the student for the clinical treatment of patients needing limited tooth movement.

DENT 6526L Orthodontics I Laboratory Credits: 2
This is a course designed to introduce the student to the field of orthodontics. The laboratory enables the student to master the materials of orthodontics in order to complete diagnostic records, to construct fixed and removable appliances, and to be familiar with tooth movement mechanics. This course will prepare the student for clinical treatment of patients needing limited tooth movement.

DENT 6527 Pharmacology and Therapeutics I Credits: 2
An introduction into the mechanisms of action, pharmacodynamics and relevant pharmacokinetics for drugs prescribed and used by patients seen by the dentist. The course is administrated through the Blackboard Course Management System and will involve live and/or recorded lectures directed at "mastery learning" of introductory pharmacology where students receive objectives, attend class, and complete reading assignments expected to assist in achieving a high level of mastery.

DENT 6531C Oral Diagnosis Clinical I Credits: 1-2
Clinical application of diagnostic principles. Students will complete a diagnostic competency examination on a selected patient.

DENT 6534 Advanced Prosthodontics Credit: 1
This course reviews advanced principals in Fixed and Removable Prosthodontics. Using evidenced based concepts, information will be presented to aid the student clinician make well informed clinical choices which will help prepare them for the use of prosthodontic techniques in the practice of general dentistry. A variety of materials, devices, and concepts will be presented. Making intelligent choices in the selection and use of these restorative materials and concepts will be a focus.

DENT 6537 Oral Oncology Credits: 0.5
A lecture course on oral oncology will deal with the biologic aspects of cancer; the detection of oral cancer and the different modalities of treatment of cancer; the dental aspects both from surgical reconstruction and prosthetic reconstruction following cancer surgery; and management of the patient prior to, during, and following radiation therapy to the head and neck and during chemotherapy for systemic cancer.

DENT 6538 Orthodontics II Credit: 1
This course will present a variety of topics related to orthodontics, such as: normal development, abnormal occlusal deviations during the developing permanent dentition, diagnosis and treatment planning of orthodontic problems, biomechanical principles in orthodontics, adolescent vs. adult orthodontics, periodontal health during orthodontic treatment, complications associated with orthodontic treatment and controversial aspect of orthodontics. You should also be able to recognize which kind of cases exceed the scope of limited treatment and may require intervention by a specialist.

DENT 6542C Operative Dentistry Clinical I Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6551CR Oral Surgery Clinical Credits: 2
This is a course for application of principles taught in didactic courses (DENT 6412, DENT 6439, DENT 6440, DENT 6521, DENT 6522, and DENT 6610) and the Oral Surgery Rotations. Oral Surgery Clinical is designed to prepare the dental student with the necessary didactic and clinical skills to properly evaluate patients and provide Oral Surgery care in a safe effective and caring manner and to evaluate competency in two areas: managing medical emergencies and oral surgical skills expected of a general dentist.

DENT 6556 Radiographic Interpretation Credit: 1
This is a comprehensive multidisciplinary course in radiologic interpretation of normal anatomy, anomalies, dental caries, periodontal disease, periapical pathology and infections of the maxilla and mandible.

DENT 6558C Treatment Planning I Credit: 1
DENT 6559 Diagnosis and Management of Orofacial Pain Credit: 1
Essential conceptual, clinical and technical information and skills necessary in the diagnosis and treatment of Orofacial Pain States. Diagnostic protocols and radiographic procedures and their integration as it relates to painful head and neck conditions are presented in depth. Differential diagnosis and special diagnostic techniques are also addressed. Behavioral factors associated with the development of chronic pain and complicating the management of pain states are identified and discussed.
DENT 6562C Removable Prosthodontics Clinical Credit: 1
This course reflects the clinical aspects of Removable Prosthodontics. The application of didactic learning and foundational skills is practiced and evaluated. By treating multiple and varied patients needing complete dentures and those needing removable partial dentures, the student should become competent to diagnose and treat the routine and uncomplicated edentulous and partially edentulous patient with removable prostheses.

DENT 6564 Pharmacology and Therapeutics II Credits: 2
This course will provide the background necessary for the dentist to become knowledgeable about the drugs their patients may be taking and their related medical conditions. Lecture topics include the diseases and medical conditions commonly seen in dental patients on an outpatient basis. The course presents the effects, mechanisms of action, dosage forms, and relevant pharmacokinetics for the drugs used in the management of these diseases. The course will cover the important side-effects of precautions of drugs that are pertinent to the dental patient for their safe management.

DENT 6566 Bridge Course Credits: 2
This course is designed as a lecture and clinical course to provide a transition into the clinical phase of the dental curriculum for the third year dental student.

DENT 6591C Professional Development I Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6592C Professional Development II Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6593C Professional Development III Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6595 Introduction To Implant Dentistry Credit: 1
To provide the undergraduate student with a solid background into the role of implant dentistry in their profession. Advances in technique and materials which are responsible for improved predictability will be presented. Emphasis will be on patient selection, treatment planning and basic restorative techniques. The student will be able to initiate uncomplicated dental implant procedures with this information and will be prepared to enter into more advanced continuing education and graduate programs in this subject.

DENT 6600 Review Of Clinical Dentistry Credits: 1-2
A summative review of the basic areas of clinical dentistry.

DENT 6601C Endodontics Clinical Credits: 1-2
Clinical application of principles taught in preceding terms.

DENT 6602 Grand Rounds II Credit: 1
This course is a continuation of Grand Rounds I and its aim is similar to Grand Rounds I: expand on the dental student's basic knowledge of critical review of scientific literature and information literacy. Students will present a Table Clinic at Midwest Dental Conference and prepare a proposal for their senior Grand Rounds presentation.

DENT 6603 Grand Rounds III Credit: 1
The fourth year Grand Round course is an independent study courses designed to develop the evidence-based research skills required to keep abreast of current concepts in dentistry; develop case documentation skills necessary for continued professional development, and develop professional public speaking skills.

DENT 6604 Grand Rounds IV Credit: 1
The fourth year Grand Round course is an independent study courses designed to develop the evidence-based research skills required to keep abreast of current concepts in dentistry; develop case documentation skills necessary for continued professional development, and develop professional public speaking skills.

DENT 6605 Review Of Clinical Dentistry II Credits: 0.5
A review of foundation knowledge for clinical dentistry.

DENT 6606C Pediatric Dentistry Clinical I Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6607C Pediatric Dentistry Clinical II Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6608C Pediatric Dentistry Clinical III Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6609C Comprehensive Patient Care III Credits: 1-10
Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist. This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skills through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.
DENT 6610C Comprehensive Patient Care IV Credits: 1-10
Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist. This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skill through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6611C Fixed Prosthodontics Clinical I Credits: 1-2
Clinical application of principles taught in preceding terms.

DENT 6613 Periodontal Treatment Planning Credit: 1

DENT 6614 Dentistry For The Special Patient Credits: 1-2
The purpose of this course is to acquaint the student with the dental treatment of three populations of patients who you may encounter in your dental career (and often have trouble finding adequate care). They include patients who are developmentally disabled, the elderly, and the medically-compromised. The course will present management techniques for in-office treatment and appropriate referral of those patients best treated in another setting. This course builds upon the skills and knowledge gained in previous courses in many disciplines, to provide an interdisciplinary experience with special patient populations. A required rotation at the Regional Center for the Developmentally Disabled gives practical experience to topics covered in lecture.

DENT 6614C Comprehensive Patient Care V Credits: 1-10
Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist. This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skill through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6615 Transitions: Introduction to the Profession & Practice of Dentistry VII Credit: 1
This is the seventh course in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course continues with the strategic planning framework and focuses on the development of a dental practice business plan.

DENT 6616 Transitions: Introduction to the Profession and Practice of Dentistry VIII Credits: 0.5
This course is a continuation of a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course allows fourth year dental students to apply concepts and principles presented in the previous practice management courses in the Innovation Center and in small group seminars. A series of small group seminars will allow for in-depth discussion of professional issues.

DENT 6617 Pediatric Dentistry Seminar Credits: 0.5
This course is designed to allow fourth year students to build on the concepts presented in DENT 6431. Using a seminar format, students will review pediatric dentistry concepts with emphasis on clinical application.

DENT 6621C Periodontics Clinical II Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6625 Oral Surgery Clinical II Credit: 1
Oral Surgery II is a continuation of Oral Surgery I and is designed to certify students’ competency in oral surgery, including managing patient pain and anxiety, i.e. nitrous oxide-oxygen sedation

DENT 6626 Clinical Treatment Planning Credit: 1
This course builds on the didactic courses and clinical experiences in treatment planning. Each student will demonstrate competency in comprehensive treatment planning to earn credit in the course.

DENT 6633 Introduction To Dental Public Health Credit: 1
Discussion of contemporary issues in community health and community oral health with emphasis on preparing students for their roles as professional members of their communities.

DENT 6634 Community-Based Dental Education (CODE) I Credit: 1
The purpose of this course is to expose third and fourth year dental students to alternative methods of dental care delivery to populations at high risk for dental disease. Specifically the course places junior and senior students in an existing network of community health centers and rural outreach sites

DENT 6635 Community-Based Dental Education (CODE) II Credit: 1
Prerequisites: DENT 6634, Completion of Third Year.

DENT 6636C Oral Radiology Clinical Credit: 1
Clinical application of those principles taught in preceding terms with emphasis on use of a variety of film holding devices. Radiographic quality assurance and darkroom maintenance will be reviewed during this course.

DENT 6642C Operative Dentistry Clinical II Credits: 1-2
Clinical application of those principles taught in preceding terms.
DENT 6650 Applied Ethics Credits: 0.5
Four or five case studies will be used during seminars. Basic ethical principles from DENT 6306 will be applied to the case studies. Two of the cases will involve ethical issues, and one of the cases will add community dentistry issues. Other cases will be used as generated or suggested by each seminar group.

DENT 6656C Orthodontic Clinical I Credit: 1
The purpose of this course is to allow each student to develop the skills, knowledge and values to diagnose potential or actual malocclusions and manage patient who need orthodontic intervention.

DENT 6690 Independent Study in Dentistry Credits: 1-6
This course provides students the opportunity to undertake independent study projects in specific areas of dentistry. Course may be repeated.

DENT 6691C Professional Development IV Credits: 1-3
Clinical application of those principles taught in preceding terms.

DENT 6692C Professional Development V Credits: 1-2
Clinical application of those principles taught in preceding terms.

**Dental Hygiene Courses**

**DENT-HYG 3000 Dental Morphology And Occlusion Credits: 2**
This course is designed to provide the dental hygiene student with a sound knowledge base in dental morphology and occlusion through discussion and laboratory experiences. Students will learn to identify anatomical structures of each tooth and be able to communicate these findings effectively with colleagues and patients in both verbal and written forms. Throughout the course, the clinical application and relevance of dental morphology in the practice of dental hygiene will be emphasized. Special consideration will be given to root morphology as it relates to periodontal instrumentation. Activities will include: identification of extracted teeth, terminology exercises, dental charting experiences and identifying classifications of occlusion.

DENT-HYG 3020 Dental Radiology Credits: 2
Lecture and clinical practice of dental radiographic procedures. Topics included are radiation hygiene, taking and developing radiographs, processing and mounting films, and radiographic interpretation. Clinical experience is required throughout the remaining semesters.

**DENT-HYG 3030 Introduction to Histopathology of Oral Tissues Credits: 2**
A comparison of the microscopic anatomy of healthy and diseased oral tissues. The major goal of this course is to integrate basic sciences (embryology, descriptive histology, and cell biology of oral tissues) with clinical sciences. The gap between the basic and clinical sciences is not always easy to bridge; this course is designed to bridge the “gap.” This course provides students with an introduction to oro-facial histology and embryology and pathology that may arise from the tissues of the head, neck, and oral cavity.

**Prerequisites:** Dental hygiene student.

DENT-HYG 3080 Introduction to the Preventive Practice of Dental Hygiene Credits: 4
This course will introduce theories and rationales for basic clinical dental hygiene care (infection control, oral examination and fundamentals of instrumentation) in diverse populations. Practical application of specific clinical skills will be introduced in the classroom and applied in the clinical setting.

DENT-HYG 3080L Preclinical Dental Hygiene Credits: 2
This course emphasizes the practical application of the fundamental concepts and principles of patient care in a diverse society discussed in DENT-HYG 3080. Emphasis is placed on patient assessment and techniques of instrumentation for examination and dental hygiene treatment. After the student has mastered basic skills, he/she will begin to provide direct dental hygiene services.

DENT-HYG 3200 General and Oral Pathology Credits: 2-3
An introduction to the principles of general pathology and organ system pathology including inflammation, immunity and diseases of immune origin, genetic diseases, neoplasia with emphasis on oral cancer, and diseases of selected organ systems including pulmonary, cardiovascular, hematopoietic, endocrine, skeletal, gastrointestinal, hepatic, pancreatic and other systems as time permits.

DENT-HYG 3210 Applied Nutrition and Biochemistry Credits: 2
This course introduces biochemistry and nutrition, encouraging identification of sources and application of specific nutrients for health. Contents familiarize students with roles of nutrition and places emphasis on the hygienist's role as nutritional educator- utilizing skills of recognition, prevention and treatment of related disease(s) and support of good oral health. Topics build on previous knowledge of chemistry, biology and physiology in application to health, coupled with deficient/optimal nutrition. Students will utilize motivational interviewing pertaining to counseling to help patients assign values, prioritize, and meet agreed upon goals. The format will include face-to-face lectures, online supplements, short labs, and group assignments/presentations.

**Prerequisites:** CHEM 211 and CHEM 211L; LS-PHYS 217.

DENT-HYG 3220 Dental Biomaterials Credits: 2
This course is designed to provide the dental hygiene student with a sound knowledge base in the science and manipulation of dental biomaterials. Through lectures and laboratory session, the student’s ability to make clinical judgments regarding the application of dental biomaterials and the ways in which materials react to the oral environment will be enhanced.
DENT-HYG 3260 Principles Of Periodontics Credits: 2
This course in Periodontics will cover the biological and clinical aspects of periodontal health and pathology. An introduction to the supporting structures of the teeth will provide the foundation of understanding pathogenesis, histopathology and subsequent therapeutic treatment of periodontal diseases. The dental hygienist's role in recognition, prevention and treatment of periodontal diseases and maintenance of periodontal health is examined.

DENT-HYG 3280C Dental Hygiene Clinic I Credits: 3
Students will further develop clinical skills and techniques learned in DENT-HYG 3080L and previous courses by providing services to patients.

DENT-HYG 3285 Seminar In Dental Hygiene I Credits: 2-3
This course expands on theory and background presented in DENT-HYG 3080. Topics include expanding dental hygiene skills required for the care of patients and continued development of problem solving abilities and critical thinking skills as they relate to the provision of dental hygiene care. Provide students with a more insightful view of the role of the dental hygienist in the delivery of comprehensive patient care.

DENT-HYG 3300 Radiographic Interpretation Credits: 0.5
The purpose of the course is to introduce interpretation of radiographic anomalies and pathology just prior to the clinical experience. Since there was little time for an emphasis on radiographic interpretation during your second year radiology course, this lecture and participation course supplement clinic instruction in diagnosis of the patient's oral needs and formulation of a treatment plan. Upon completion of this course, the student should be able to recognize simple pathology and radiographic anomalies.

DENT-HYG 3320 Oral Health Behavior Change Credits: 3
The purpose of this hybrid course is to prepare the junior dental hygiene student to effectively assess and individualize preventive oral health care through the use of brief motivational interviewing. The course will include evidenced based information in dental caries and caries risk assessment, caries preventive measures, introduction to periodontal disease, dental stains, and management of xerostomia, halitosis, and dentinal sensitivity, oral healthcare products and how to care for an oral appliance. The student will subsequently apply course concepts to facilitate patient behavior change in the clinical setting. Recommended preparation: a course in General Psychology.

DENT-HYG 3340 Principles Of Public Health Credits: 2
This course introduces the student to principles of public health, the field of epidemiology, health care delivery systems, public health terminology and teaching methodologies to use in culturally diverse community settings. Students will have the opportunity to assess a target population, plan, implement and evaluate appropriate programs. Students will also apply theories and skills of communication and education while preparing and presenting oral health education programs for various population groups.

DENT-HYG 4001 Clinical Oral Radiology Credit: 1
Clinical application of radiology principles taught in preceding terms. To provide clinical skills to safely make and interpret radiographic images for the provision of oral health care.

DENT-HYG 4020 Local Anesthesia And Pain Control Credits: 3
This course is designed to prepare dental hygiene students for the safe, effective administration of local anesthesia and nitrous oxide sedation. Included are content areas in anatomy, physiology, pharmacology, and emergency management as they relate to the administration of local anesthetics, nitrous oxide, and pain control. Laboratory sessions are structured to develop actual experiences in administration of local anesthetics and nitrous oxide. Various mechanisms for pain control are also covered. Methods of presentation include lecture, large group discussion, laboratory and clinical participation.

DENT-HYG 4040 Foundations of Teaching Credits: 2
This course provides an introduction to the evidence-based best practices in course design for students who are preparing for a career in teaching and for those who simply wish to learn more about classroom instruction. Students will explore outcomes centered course design and practical and effective instructional strategies. Content application activities include syllabus development, writing objectives, constructing lesson plans, preparing presentations and developing course management sites.

DENT-HYG 4050 Periodontics II Credit: 1
This course in Periodontics will provide and introduction to Phase II and III therapy. Periodontal decision making will be emphasized. The dental hygienists’ role in recognition, prevention and treatment of periodontal diseases and maintenance of periodontal health is further examined.
Prerequisites: DENT-HYG 3260.

DENT-HYG 4060C Dental Hygiene Clinic II Credits: 2
The student will continue to develop competency in basic dental hygiene skills. Principles of periodontal techniques, such as non-surgical periodontal therapy, supportive treatment procedures and comprehensive patient care in a diverse society will be emphasized. The student will be asked to demonstrate professional management skills and productivity.

DENT-HYG 4065 Seminar in Dental Hygiene II Credit: 1
This seminar course is offered in conjunction with DENT-HYG 4060C, and expands upon theory and background presented in other dental hygiene courses within the curriculum which will involve further development of their critical thinking/problem solving skills regarding patient care. Students will be provided with further instruction regarding advanced instrumentation, cultural diversity, motivational interviewing and other technological advancements utilized in dental hygiene care.
Co-requisites: DENT-HYG 4060C.
DENT-HYG 4080 Introduction to Research and Evidence Based Decision Making Credits: 2
This is a lecture/discussion course with assigned exercises in the research process and evaluating scientific studies. Students will apply basic principles of research design and methodology to the critical analysis of contemporary oral health related literature focusing on the review and evaluation of literature as it relates to the practice and profession of dentistry and dental hygiene with the intent of utilizing an evidence-based approach to care.

DENT-HYG 4100 Pharmacology Credits: 3
An overview and introduction to the major drug groups and common drugs taken by dental outpatients. Course includes the basic principles and general theories of drug action, basic pharmacokinetics, their mechanisms of action and therapeutic uses and the relative dental significance of each.

DENT-HYG 4110 Introduction to Research Methodologies Credits: 2
This is a lecture/discussion course with assigned exercises in the research process and evaluating scientific studies. Students will learn the basic principles involved in research design and methodology and will apply those principles to the critical analysis of contemporary health related literature. Focus on the review and evaluation of literature as it relates to the practice and profession of dentistry with the intent of utilizing an evidence-based approach to care will be stressed.

DENT-HYG 4115 Practicing in the Dental Hygiene Public Health Safety Net Credits: 3
The course is designed to increase the knowledge base of the practicing dental hygienist in the area of public health dentistry, including health promotion, disease prevention, current legislation, evidence based treatment, school based portable dentistry, coalitions, treating the geriatric and disabled populations, as well as how to write and secure.

DENT-HYG 4120C Dental Hygiene Clinic III Credits: 4
The student will continue to develop competency in intermediate dental hygiene skills. Principles of periodontal techniques, such as root planning, pain control and supportive techniques will be stressed. Comprehensive treatment planning and implementation of comprehensive care to a diverse patient population will be the focus of this course. Continued development of professionalism, management and critical thinking skills will be emphasized.

DENT-HYG 4125 ECP III Training Course Credits: 2
The ECP III Training Course is designed to prepare a registered dental hygienist to apply for the Kansas Extended Care Permit III. Hygienists with the ECP III certificate can practice under the sponsorship of a dentist in a variety of public health settings including schools and long term care facilities in Kansas.

DENT-HYG 4130 Introduction to Instructional Technologies and Online Learning Credit: 1
The web-based multimedia course will examine the mediated communication process using Internet tools and is designed to help the incoming student become prepared to succeed in their degree program using online technologies. Students will exam the changes and challenges associated with mediated synchronous and asynchronous technologies. The course will be delivered in four different modules.

DENT-HYG 4150 Portfolio Capstone Credit: 1
The capstone course serves as the culminating experience for students in the BSDH Degree Completion Program. During the Capstone course, students will create a coherent and cohesive body of work reflective of attainment of the competencies for the BSDHDC program—in the form of an e-Portfolio.

DENT-HYG 4210 Practice Management Credits: 3
Current relevant issues impacting dental hygiene practice are discussed. Dental practice economics, communicating and management in a diverse society are included. Also included in this course is the study of jurisprudence as it relates to the practice of dental hygiene.

DENT-HYG 4240 Ethics In Professional Practice Credit: 1
Study of ethics and ethical issue related to the practice of dental hygiene within a diverse society. Includes application of ethical principles to real-life situations.

DENT-HYG 4260 Senior Seminar Credits: 2
This course serves as a means of synthesizing information from all courses in the dental hygiene curriculum and applying content to patient cases and practice management issues. Case-based learning (CBL) will be utilized to review significant content areas as well as to introduce subjects not previously encountered during previous clinical experiences. Case based/problems based learning (PBL) with faculty facilitation will assist students in managing patient cases. This course is also designed to assist in preparing senior dental hygiene students for the written and clinical examinations required for licensure.

DENT-HYG 4260C Dental Hygiene Clinic IV Credits: 4
The student will have the opportunity to reach competency in all clinical skills. Emphasis will be placed on decision-making, problem-solving, critical thinking, appointment and time management. The course will focus on comprehensive dental hygiene care to a diverse population.

DENT-HYG 4320 Special Patient Care Practicum Credits: 2-4
Through outside agency affiliation, students will have the opportunity of applying the course content from Principles of Public Health, Dental Health Education and DHE-Practicum. Sites for participation include hospitals, nursing homes, and residential and day activity centers for developmentally disabled.
The course is designed for the dental hygiene student who desires independent study of a particular problem or area of interest in dental hygiene. These experiences may lead the students into clinical activities or design and implementation of dental health educational programs. The student will have the opportunity to work with various community health professionals in the Kansas City area. The student will need reliable transportation and should expect some experiences to require travel. Possibilities for practicum experiences are broad and will be defined after an initial assessment of the student's interest and goals. An individual learning contract will be written following the assessment. The student will be required to meet as a group periodically throughout the semester.

**DENT-HYG 4350 Periodontal Therapy Practicum Credits: 1-4**

This course is designed for the dental hygiene student who desires increased experience with periodontal skills. The course involves practical experience in the graduate periodontics clinic working with a periodontology resident. Two clinic sessions per week; one seminar scheduled weekly.

**DENT-HYG 4360 Practice Management Practicum Credits: 3**

Current relevant issues impacting dental hygiene practice are discussed. Dental practices, economics, communication and management are included. Practical application of course would include the development of a dental office operating manual.

**DENT-HYG 4380 Research Practicum Credits: 2-4**

This course provides an opportunity to apply the content in the previous course Introduction to Research Design. The protocol identified may be a basic science, clinical or community dental hygiene problem. The field experience may deal with a basic or applied, descriptive or explanatory research question.

**DENT-HYG 4500 Seminar on Issues in Higher Education for Health Professionals Credits: 2-4**

This course is designed to introduce the student to matters encountered in higher education specific to dental hygiene education. Weekly readings, assignments, and sessions will familiarize the student in topics such as: writing resumes and cvs, case-based learning, accreditation, promotion and tenure, and assessment.

**DENT-HYG 4600 Evidence Based Decision Making in the Clinical Practice of Dental Hygiene Credits: 2-4**

This course is designed for the graduate and degree completion dental hygiene student and expand on the student's basic knowledge of the dental hygiene process of care. Utilization of evidence based decision making skills will be explored in an effort to incorporate current scientific literature, personal clinical experience and patient preferences as it relates to the delivery of comprehensive patient care. Skills taught in this course will enhance background knowledge related to the dental hygiene process of care and help to foster an attitude of critical analysis and lifelong learning.

**DENT-HYG 4620 Introduction to Educational Methodology Credits: 3**

This course is designed to introduce the student to basic educational methodologies and to provide participants with a better understanding of the teaching/learning process. The course includes units on instructor/student relationships, educational approaches, educational ethics and professionalism, the scholarship of teaching and learning and curriculum theory.

**DENT-HYG 4625 Dental Hygiene Administration Credits: 2**

This course is designed for the post-certificate dental hygiene student. Major topic areas include accreditation of dental hygiene programs, the impact of National and State Board examinations on curriculum planning, selective admissions policies and procedures, faculty evaluation, promotion and tenure and students' rights.

**DENT-HYG 4630 Practicum in Dental Hygiene Administration Credits: 2-4**

Under the supervision of the Director of Dental Hygiene, the student will gain actual experiences in the daily administration of a dental hygiene program. The student may contract for responsibilities such as admissions, budget preparations, course scheduling, report writing and student academic counseling.

**DENT-HYG 4635 Practicum In Clinical Supervision Credits: 2-4**

Under the supervision and permission of the Dental Hygiene Clinical Supervisor, the student will gain actual experience in the duties involved in coordinating the clinical education of a dental hygiene student. The student may contract for responsibilities such as, coordinating mock board examinations, maintaining student clinical records, developing faculty and student clinic schedules and report writing.

**DENT-HYG 4640 Student Teaching and Conference I Credits: 2-4**

Under the direction of a supervising professor, the student may select teaching experience in the classroom areas of their choice. The student develops behavioral course objectives, comprehensive lesson plans, test and examination items, classroom presentations, and prepares student evaluations in the selected classroom teaching areas. The student may select teaching assignments in one of the developed externship student teaching programs. Conferences will be held in conjunction with the course.

**Prerequisites:** DENT-HYG 4040, DENT-HYG 4620.

**DENT-HYG 4650 Student Teaching and Conference II Credits: 2-4**

The student will continue to develop teaching skills in laboratory and/or classroom areas as selected by the student under the direction of a supervising professor.

**Prerequisites:** DENT-HYG 4640.

**DENT-HYG 4660 Independent Study in Dental Hygiene Credits: 1-4**

This course is designed for the dental hygiene student who desires independent study of a particular problem or area of interest in dental hygiene education.
DENT-HYG 4680 Dental Hygiene Clinical Instruction I Credits: 2-4
Continued development of competency as a clinical instructor under the supervision of the dental hygiene faculty. Requires a half-day in clinic student instructor.
**Prerequisites:** DENT-HYG 4640.

DENT-HYG 4685 Dental Hygiene Clinical Instruction II Credits: 1-4
A continuation of DENT-HYG 4680. Under the supervision of the dental hygiene faculty, students may continue to develop skills as a dental hygiene clinical instructor.
**Prerequisites:** DENT-HYG 4680.

DENT-HYG 5500 Introduction to Educational Methodology Credits: 3
This course is designed to introduce the student to basic educational methodologies and to provide participants with a better understanding of the teaching/learning process. The course includes units on instructor/student relationships, educational approaches, educational ethics and professionalism, the scholarship of teaching and learning and curriculum theory.

DENT-HYG 5502 Foundations of Teaching Credits: 2
This course provides an introduction to the evidence-based best practices in course design for students who are preparing for a career in teaching and for those who simply wish to learn more about classroom instruction. Students will explore outcomes centered course design. Content application activities include syllabus development, writing objectives, constructing lesson plans, preparing presentations, developing course management sites, and test development.
**Prerequisites:** Must be a student enrolled in the MSDHE program.

DENT-HYG 5510 Student Teaching and Conference I Credits: 2-4
Student teaching experience in classroom areas as selected by the student under the direction of a supervising professor. The student develops behavioral course objectives, test and examination items, classroom presentations, and prepares student evaluations in the selected classroom teaching areas. The student may select teaching assignments in one of the developed externship student teaching programs. Conferences will be held in conjunction with the course.
**Prerequisites:** DENT-HYG 4040, DENT-HYG 5500.

DENT-HYG 5512 Student Teaching and Conference II Credits: 2-4
This course is designed to provide the graduate dental hygiene student with additional experience in classroom teaching. Student teaching experiences will be selected by the student under the direction of and in conference with a supervising professor.

DENT-HYG 5516 Special Issues in Higher Education for Health Professional Credits: 3
This course is designed to introduce the student to matters encountered in higher education specific to dental hygiene education. Weekly readings, assignments, and sessions will familiarize the student in topics such as: writing resumes and cvs, motivational interviewing, accreditation, promotion and tenure, and social media.

DENT-HYG 5530 Clinical Instruction and Conference I Credits: 2-4
Students will actively participate in clinical instruction under the supervision of a dental hygiene faculty member. Topics relative to clinical teaching will be discussed in weekly seminars. Students will be encouraged to apply knowledge gained in DENT-HYG 4620 and DENT-HYG 5500 during clinical instructional experiences. Additionally the student must participate in at least 5 day of clinic per week to equal another credit hour of course work.

DENT-HYG 5532 Clinical Instruction and Conference II Credits: 2-4
This course is a continuation of DENT-HYG 5530. Under the supervision of the dental hygiene faculty, the student will continue to develop skills as a dental hygiene clinical instructor.
**Prerequisites:** DENT-HYG 5530.

DENT-HYG 5553 Evidence Based Decision Making in the Clinical Practice of Dental Hygiene Credits: 2-4
This course is designed for the graduate and degree completion dental hygiene student and will expand on the student’s basic knowledge of the dental hygiene process of care. Utilization of evidence based decision making skills will be explored in an effort to incorporate current scientific literature, personal clinical experience and patient preferences as it relates to the delivery of comprehensive patient care. Skills taught in this course will enhance background knowledge related to the dental hygiene process of care and help to foster an attitude of critical analysis and life-long learning.

DENT-HYG 5560 Practicum in Clinical Supervision and Management Credits: 2-4
Practical experience in functioning as a Clinic Supervisor. Clinical managerial projects will be assigned according to students’ interests and goals by agreement between student and instructor.

DENT-HYG 5565 Advanced Special Patient Care Practicum I Credits: 1-4
This course is designed to familiarize the student with general principles of cancer therapy and the role of the dental team in the multidisciplinary care of patients undergoing oncology treatments. Special emphasis will be placed on the treatment of the patient with head and neck cancer, and preventive and palliative dental interventions for control of the orl complications associated with all cancer therapies. Cancer prevention issues and the psychosocial and economic impact of cancer diagnosis will also be discussed.
DENT-HYG 5566 Advanced Special Patient Care Practicum II Credits: 1-4
This course will provide the graduate dental hygiene student with the opportunity to explore the relationship of an oncology dental program to medical health care facilities.

DENT-HYG 5570 Administrative Practicum Credits: 1-4
Practical experience in administration. The student selects areas of responsibility based on their goals and interests in administration. Possible areas of involvment are: recruitment, admissions, curriculum and course development, course scheduling, grant and report writing and student advising.

DENT-HYG 5575 Practicing in the Dental Hygiene Public Safety Net Credits: 3
This course is designed to increase the knowledge base of practicing dental hygienists in the area of public health dentistry, including health promotion, disease prevention, current legislation, evidence based treatment, school based portable dentistry, coalitions, treating the geriatric and disabled populations, as well as how to write and secure grant monies. In addition, the course will expose dental hygienists to a variety of public health settings in which they can practice with an Extended Care Permit (in KS) or the Dental Hygiene Designation (in MO). Information on how to apply for the permits will also be shared.

DENT-HYG 5576 Extended Care Permit (ECP) III Training Course Credits: 2
The Extended Care Permit (ECP) III Training Course is designed to prepare a registered dental hygienist to apply for the Kansas Extended Care Permit III. Hygienists with the ECP III certificate can practice under the sponsorship of a dentist in a variety of public health settings including schools and long term care facilities in Kansas.

Prerequisites: Must be a student enrolled in the MSDHE program.

DENT-HYG 5585 Portfolio Capstone Course Credit: 1
This capstone course serves as the culminating experience for students in the MS in Dental Hygiene Education (MS in DHE). During the Capstone course, students will create a coherent and cohesive body of work reflective of attainment of the competencies for their respective programs - in the form of an e-Portfolio. This course should be taken in the semester of anticipated completion/graduation of the MS In DHE program.

DENT-HYG 5590 Independent Study Credits: 1-4
Independent study of a particular topic or area of interest to the student in dental hygiene/dentistry and/or higher education.

DENT-HYG 5595 Writing in Science Credits: 1-2
This seminar course is designed to provide advanced education students in the health professions the skills necessary to write and communicate in science. Course activities and topics include: critical analysis of the literature, literature summary tables, structure and organization of documents, style and usage, drafting, revising and finishing. Participants will practice the craft of scientific writing not only as the writer but also as the reader providing correction and reorganization where appropriate. While this course examines many writing tasks, exercise culminate with the development of a research protocol or scientific article.

DENT-HYG 5599 Research And Thesis Credits: 1-6
This course is designed to support the research process from protocol development through data collection and report of results. Research committee chairperson typically serves as the course director.

Endodontics Courses
ENDO 5701 Endodontology 1 Credits: 1-6
This course is designed to introduce the first year endodontic postgraduate student to the field of advanced endodontics. It will provide introductory information and guidance which will serve as a basis for follow on course work in ENDO 5702 through ENDO 5706.

ENDO 5702 Endodontology 2 Credits: 1-6
This course is designed to continue the transition of the general dentist into a first year endodontic postgraduate student in the field of advanced endodontics. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.

ENDO 5703 Endodontology 3 Credits: 1-6
This course is designed to complete the transition of the general dentist into a first year endodontic postgraduate student in the field of advanced endodontics. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.

Prerequisites: ENDO 5701, ENDO 5702.

ENDO 5704 Endodontology 4 Credits: 1-6
This course is designed to transition the first year into a second year postgraduate student in the field of advanced endodontics. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.

Prerequisites: ENDO 5701, ENDO 5702, ENDO 5703.

ENDO 5705 Endodontology 5 Credits: 1-6
This course is designed to continue the transition of the general dentist into a more proficient second year postgraduate student in the field of advanced endodontics. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.

Prerequisites: ENDO 5701, ENDO 5702, ENDO 5703, ENDO 5704.
ENDO 5706 Endodontontology 6 Credits: 1-6
This course is designed to complete the transition of the general dentist into a fully independently practicing endodontist. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.
Prerequisites: ENDO 5701, ENDO 5702, ENDO 5703, ENDO 5704, ENDO 5705.

ENDO 5721 Endodontontology 7 Credits: 1-6
This course is designed to complete the transition of the general dentist into a fully independently practicing endodontist. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.
Prerequisites: ENDO 5706.

ENDO 5722 Endontology 8 Credits: 1-6
This course is designed to complete the transition of the general dentist into a fully independently practicing endodontist. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.
Prerequisites: ENDO 5721.

ENDO 5723 Endodontontology 9 Credits: 1-6
This course is designed to complete the transition of the general dentist into a fully independently practicing endodontist. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.
Prerequisites: ENDO 5722.

General Practice Courses

G-PRAC 5710 Principles Of Pedodontics For General Practice Credits: 2
A lecture course presenting the basic concepts of diagnosis and treatment of the child in a general dental practice.

G-PRAC 5716 Special Problems In General Practice Dentistry I Credits: 1-6
Courses designed to provide the student with opportunities to work with consultants and specialists on the faculty of the dental school on cases which require the attention of a specialist.

G-PRAC 5717 Special Problems In General Practice Dentistry II Credits: 1-6
Prerequisites: G-PRAC 5716.

G-PRAC 5718 Special Problems In General Practice Dentistry III Credits: 1-6
Prerequisites: G-PRAC 5717.

G-PRAC 5721 General Practice Clinic I Credits: 1-10
G-PRAC 5722 General Practice Clinic II Credits: 1-10
G-PRAC 5723 General Practice Clinic III Credits: 1-10
G-PRAC 5728 Dental Implantology Credit: 1
The course is designed to include the following topics: history of implantology, implant materials and designs, fibroosseous and osseo-integration theories, bioinert and bioactive retention, indication and case selection, technique methodology, anatomical considerations and reasons for failure, prosthetic considerations using several systems and necessary radiographic aids, surgical stent and laboratory with simulated insertion of an implant.

G-PRAC 5740 Interdisciplinary Seminar I Credit: 1
The integration of common areas of concern in the clinical disciplines of Oral and Maxillofacial Surgery, Orthodontics, Pediatric Dentistry, Periodontics and Prosthodontics as they relate to patient cases. Cases are presented that present problems in at least two clinical disciplines in the areas of Diagnosis, Treatment Programming or Therapy. The current literature is reviewed and the case discussed.

G-PRAC 5741 Interdisciplinary Seminar II Credits: 1-6
Prerequisites: G-PRAC 5740.

G-PRAC 5742 Interdisciplinary Seminar III Credit: 1
Prerequisites: G-PRAC 5741.

G-PRAC 5743 Interdisciplinary Seminar IV Credit: 1
Prerequisites: G-PRAC 5742.

G-PRAC 5899 Required Graduate Enrollment Credit: 1

Oral Biology Courses

OR-BIO 5699 Dissertation Research Credits: 1-12
Ph.D. dissertation research.

OR-BIO 5702 Biomechanics of Mineralized Tissue Credits: 3
The physical principles underlying mineralized tissue biomechanics will be presented at multiple hierarchies. Details of bone, tooth and joint (with a special emphasis on the TMJ) anatomy and function will be outlined as related to mechanical loading.
OR-BIO 5899 Required Graduate Enrollment Credit: 1

**Oral Surgery Courses**

OR-SURG 5700 Principles Of Oral Surgery I Credit: 1
A conference on diagnosis, treatment planning, surgical technique.

OR-SURG 5701 Principles of Oral Surgery II Credit: 1
Prerequisites: OR-SURG 5700.

OR-SURG 5702 Principles of Oral Surgery III Credit: 1
Prerequisites: OR-SURG 5701.

OR-SURG 5703 Principles of Oral Surgery IV Credit: 1
Prerequisites: OR-SURG 5702.

OR-SURG 5704 Clinical Oral Surgery I Credit: 1
The clinical application of the principles of diagnosis, treatment planning, and surgical techniques.

OR-SURG 5705 Clinical Oral Surgery II Credit: 1
Prerequisites: OR-SURG 5704.

OR-SURG 5706 Clinical Oral Surgery III Credit: 1
Prerequisites: OR-SURG 5705.

OR-SURG 5707 Physical Diagnosis For The Oral & Maxillofacial Surgeon I Credit: 1
Basic physical diagnosis and review of systems as it relates to the practice of Oral and Maxillofacial Surgery.

OR-SURG 5708 Physical Diagnosis For The Oral & Maxillofacial Surgeon II Credit: 1
Advanced physical diagnosis and review of systems as it relates to the practice of Oral and Maxillofacial Surgery.

OR-SURG 5709 Physical Diagnosis For The Oral & Maxillofacial Surgeon III Credit: 1
Oral and Maxillofacial Surgery and the medically compromised patient.

OR-SURG 5710 Physical Diagnosis For The Oral & Maxillofacial Surgeon IV Credit: 1
Prerequisites: OR-SURG 5709.

OR-SURG 5711 Physical Diagnosis for the Oral & Maxillofacial Surgeon V Credit: 1
Prerequisites: OR-SURG 5710.

OR-SURG 5712 Physical Diagnosis for the Oral & Maxillofacial Surgeon VI Credit: 1
Prerequisites: OR-SURG 5711.

OR-SURG 5713 Advanced Physical Diagnosis For Oral & Maxillofacial Surgeon I Credit: 1
Advanced physical diagnosis and review of systems as it relates to the practice of Oral and Maxillofacial Surgery.

OR-SURG 5714 Advanced Physical Diagnosis for Oral & Maxillofacial Surgeon II Credit: 1
Prerequisites: OR-SURG 5713.

OR-SURG 5716 Special Problems In Oral And Maxillofacial Surgery I Credit: 1
OR-SURG 5717 Special Problems In Oral And Maxillofacial Surgery II Credit: 1
OR-SURG 5719 Special Problems - Oral & Maxillofacial Surgery IV Credit: 1
Special Problems - Oral Maxillofacial Surgery IV

OR-SURG 5720 Oral Surgery Hospital Residency I Credit: 1
Two calendar years of hospital residency in an affiliated teaching hospital. The residency provides additional training in major oral surgery and didactic education in oral surgery and science areas, including anesthesiology, diagnosis, pathology, and radiology.

OR-SURG 5721 Oral Surgery Hospital Residency II Credit: 1
Prerequisites: OR-SURG 5720.

OR-SURG 5722 Oral Surgery Hospital Residency III Credit: 1
Prerequisites: OR-SURG 5721.

OR-SURG 5723 Oral Surgery Hospital Residency IV Credit: 1
Prerequisites: OR-SURG 5722.

OR-SURG 5724 Oral Surgery Hospital Residency V Credit: 1
Prerequisites: OR-SURG 5723.
OR-SURG 5725 Oral Surgery Hospital Residency Vi Credit: 1
Prerequisites: OR-SURG 5724.

OR-SURG 5727 Major Oral Surgery I Credit: 1
A comprehensive study of major oral surgery. Lectures are correlated with surgical exercises which are performed in the anatomy laboratory.

OR-SURG 5728 Major Oral Surgery II Credit: 1
Prerequisites: OR-SURG 5727.

OR-SURG 5729 General Anesthesiology And Pharmacology I Credit: 1
The pharmacological principles of the various anesthetic agents and allied medications.

OR-SURG 5730 General Anesthesiology and Pharmacology II Credit: 1
Prerequisites: OR-SURG 5729.

OR-SURG 5731 Clinical General Anesthesiology And Pharmacology I Credit: 1
The clinical application of various anesthetic and pharmacological agents.

OR-SURG 5732 Clinical General Anesthesiology and Pharmacology II Credit: 1
Prerequisites: OR-SURG 5731.

OR-SURG 5733 Clinical General Anesthesiology and Pharmacology III Credit: 1
Prerequisites: OR-SURG 5732.

OR-SURG 5734 Clinical/Major General Anesthesiology And Pharmacology I Credit: 1
The clinical/major surgical application of various anesthetic and pharmacological agents.

OR-SURG 5735 Clinical/Major General Anesthesiology and Pharmacology II Credit: 1
Prerequisites: OR-SURG 5734.

OR-SURG 5736 Clinical/Major General Anesthesiology and Pharmacology III Credit: 1
Prerequisites: OR-SURG 5735.

OR-SURG 5737 Pediatric General Anesthesiology And Pharmacology I Credit: 1
The pharmacological principles of various anesthetic agents and allied medications in the pediatric patient.

OR-SURG 5740 Oral & Maxillofacial Surgery Independent Study Credits: 1-6
An advanced study and/or elective course in Oral and Maxillofacial Surgery related field(s) which enhances the compulsory curriculum.

OR-SURG 5752 Seminar In Oral Surgery I Credit: 1
A discussion of current literature and research relating to oral surgery.

OR-SURG 5753 Seminar in Oral Surgery II Credit: 1
Prerequisites: OR-SURG 5752.

OR-SURG 5754 Seminar In Oral Surgery III Credit: 1

OR-SURG 5755 Seminar in Oral Surgery Iv Credit: 1
Prerequisites: OR-SURG 5754.

Orthodontics Courses

ORTHOD 5704 Orthodontics And Dentofacial Orthopedics I Credits: 1-6
Orthodontic theory, treatment techniques and treatment of patients; includes current and historical concepts.

ORTHOD 5705 Orthodontic and Dentofacial Orthopedics II Credits: 1-6
Prerequisites: ORTHOD 5704.

ORTHOD 5706 Orthodontics and Dentofacial Orthopedics III Credits: 1-6
Prerequisites: ORTHOD 5705.

ORTHOD 5707 Orthodontics and Dentofacial Orthopedics Iv Credits: 1-6
Prerequisites: ORTHOD 5706.

ORTHOD 5708 Orthodontic and Dentofacial Orthopedics V Credits: 1-6
Prerequisites: ORTHOD 5707.

ORTHOD 5709 Orthodontic and Dentofacial Orthopedics Vi Credits: 1-6
Prerequisites: ORTHOD 5708.
ORTHOD 5710 Orthodontic and Dentofacial Orthopedics VII Credits: 1-6  
**Prerequisites:** ORTHOD 5709.

ORTHOD 5711 Orthodontics and Dentofacial Orthopedics VIII Credits: 1-6  
**Prerequisites:** ORTHOD 5710.

ORTHOD 5726 Cephalometric I Credits: 2  
An introductory lecture and laboratory course in the principles of radiographic cephalometry and integrated cephalometric analysis.

ORTHOD 5727 Cephalometric II Credits: 2  
An advanced lecture and laboratory course with emphasis on the use of a computer in cephalometric analysis.

**Periodontics Courses**

PERIO 5700 Periodontic Residency I Credits: 1-2  
Didactics, Seminars in Basic Periodontics with Clinical Practice.

PERIO 5701 Periodontal Residency I Credits: 1-6  
Clinical Periodontics with Related Didactics and Seminar. This first year course introduces the incoming advanced education student to the principles and techniques in the field of advanced periodontics.

PERIO 5702 Periodontal Residency II Credits: 1-6  
Clinical Periodontics with Related Didactic and Seminar. This first year course continues the instruction of the advanced education student to the principles and techniques in the field of advanced periodontics.  
**Prerequisites:** PERIO 5701.

PERIO 5703 Periodontal Residency III Credits: 1-6  
Clinical periodontics, with related didactics and seminar. This first year course continues the instruction of the advanced education student to the principles and techniques in the field of advanced periodontics, and builds upon the material taught in previous courses as well as introduces new information.

PERIO 5704 Periodontal Residency IV Credits: 1-6  
Clinical periodontics with related didactics and seminar. This second year course is designed to transition the first year student into a second year advanced education student and builds upon the material taught in previous courses as well as introducing new information.  
**Prerequisites:** PERIO 5701, PERIO 5702, PERIO 5703.

PERIO 5705 Periodontal Residency V Credits: 1-6  
Clinical Periodontics with Related Didactics and Seminar. This second year course continues the instruction of the advanced education student to the principles and techniques in the field of advanced periodontics, and builds upon the material taught in previous courses as well as introducing new information.  
**Prerequisites:** PERIO 5704.

PERIO 5706 Periodontal Residency VI Credits: 1-6  
Clinical Periodontics with Related Didactics and Seminar. This second year course is designed to build upon the in-depth knowledge base of the advanced education student, as well as introducing new information, transitioning the student into a more proficient student in advanced periodontics.  
**Prerequisites:** PERIO 5705.

PERIO 5707 Periodontal Residency VII Credits: 1-6  
Clinical Periodontics with Related Didactics and Seminar. This third year course serves to transition the student into a clinician who by repeated action exhibits in depth levels of knowledge and skill. It builds upon material previously taught.  
**Prerequisites:** PERIO 5706.

PERIO 5708 Periodontal Residency VIII Credits: 1-6  
Clinical Periodontics with Related Didactics and Seminar. This third year course builds upon information previously taught and completes the transition of the student into a proficient specialist in Periodontology.  
**Prerequisites:** PERIO 5707.

PERIO 5709 Periodontal Residency IX Credits: 1-6  
Clinical Periodontics with Related Didactics and Seminar. This third year course is designed to build upon the in-depth information and knowledge base previously taught and completes the transition of the student into a proficient specialist in periodontology.  
**Prerequisites:** PERIO 5708.

PERIO 5719 Implantology Credits: 2  
This 2 credit hour seminar is designed for a student in the Advanced Education Program in Periodontology to develop in-depth knowledge of the concepts and theories of implant dentistry as they relate to periodontist. It will provide basic and advanced information and guidance which will serve to complement course work in PERIO 5702 through PERIO 5709, and the clinical implant dentistry experience offered in the program, at a minimum to a level of competency.
PERIO 5720 General Anesthesia Credit: 1
A rotation to the Department of Anesthesiology of K.C. Veterans Administration Medical Center. Students become familiar with operating room procedures, medical emergencies, venipuncture, airway maintenance and pharmaco-physiology of sedative, analgesic and anesthetic agents as well as drug interactions.

PERIO 5730 Biology Of The Periodontium Credits: 1-2
Biology of the Periodontium covers the embryology, histology, ultrastructure and biochemistry of stratified squamous epithelium, fibrous connective tissue, bone and cementum. These four tissues are studied in health and during inflammatory disease and healing of surgical wounds. Major emphasis is placed on immune system interactions with bone and fibrous connective tissue components during inflammatory periodontal disease.

PERIO 5799 Research And Thesis Credits: 1-6
PERIO 5899 Required Graduate Enrollment Credit: 1

**Research Methodology-Dentistry Courses**

RES-ME 5700 Introduction To Research Methodology Credits: 2-3
This lecture/discussion course will facilitate student's understanding of terminology and key concepts of research methodology and design. Assigned exercises are designed to demonstrate application of research design principles, and to increase advanced education students' competency in evaluating and planning scientific studies. This knowledge is indispensable for conducting meaningful research in advanced education certificate, masters of doctoral level programs.

RES-ME 5703 Thesis Writing Credit: 1
The methods of preparing, organizing, and presenting research findings using scientific writing format will be reviewed for completing a thesis. This course is required for the Master of Science degrees in Oral Biology and Dental Hygiene Education.

RES-ME 5704 Introduction to Biostatistics Credits: 2-3
A lecture/seminar course required for students pursuing a master's degree. This course focuses on an in-depth coverage of statistical designs commonly found in dental research, statistical techniques associated with these designs, application to them via the use of a computer based statistical software analysis package, and the interpretation of statistical tests.

**Prerequisites:** RES-ME 5700.

RES-ME 5706 Dissertation Writing Credit: 1
Scientific writing format appropriate for preparing a dissertation will be reviewed. This course is required for the Interdisciplinary Ph.D. degree in Oral Biology.
General Information and History

General Information

All statements in this section are announcements of present policies, requirements (admission and academic progress), curricula, fees and services. They are subject to change at any time without prior notice. They are not to be regarded as offers to contract.

History

The UMKC School of Dentistry traces its roots to 1881, when the Kansas City Dental College was founded as a department of the Kansas City Medical College. In 1919 the Kansas City Dental College merged with Western Dental College to form the Kansas City Western Dental College. It became the School of Dentistry of the University of Kansas City in 1941. In 1963 the school became the School of Dentistry at UMKC.

Continuous and distinguished service for more than 125 years has established the School of Dentistry as an important institution in the region and throughout the nation.

Over the years, the school's educational standards and opportunities have increased as the school has consistently demonstrated its ability to educate well-qualified dentists and dental hygienists to contribute to the improvement of oral health. As an affirmation of this, the D.D.S., the graduate certificate programs: advanced education in general dentistry, periodontics, oral and maxillofacial surgery, endodontics, and orthodontics and dentofacial orthopedics, and the B.S. in dental hygiene are fully accredited by the Commission on Dental Accreditation of the American Dental Association.

The school is situated on the Health Sciences Campus, where Truman Medical Center, Children's Mercy Hospital and the UMKC Schools of Medicine, Nursing and Health Studies, and Pharmacy are also located.
Vision, Mission and Goal Statements

Mission Statement
UMKC School of Dentistry serves as a leader in the advancement of oral healthcare through exceptional educational programs, scientific inquiry, patient care and service to society.

Vision Statement
UMKC School of Dentistry will be a model oral healthcare education institution that maintains the highest ethical and scientific standards of care, serving patients and the profession in an evolving healthcare environment.

Goals
The School of Dentistry is a center for dental education, research service clinical care.

The goals of the school are to:

• Enhance the School’s culture to advance our mission.
• Evaluate the organizational structure in advancing our mission.
• Maintain and improve the School’s physical infrastructure to advance our mission.
• Provide educational programs that develop competent, compassionate, engaged life-long learners who will become oral health practitioners, researchers and educators.
• Achieve national/international recognition for excellence in oral health research.
• Promote a life-long service commitment to the profession, the community, and society.
• Provide outstanding care to our patients.

Core Values

Excellence
We will achieve excellence by:

• Developing professionals through rigorous academic education and practical training.
• Performing teaching and research that incorporates best-practice techniques, setting goals that are achievable and measurable, as well as by seeking feedback from our students, colleagues and community.
• Adhering to high standards of evidence-based dentistry and clinical judgment through collaboration and leadership.

Compassion
We will practice compassion by:

• Taking a genuine interest in the needs of those we serve in order to help them live healthy and productive lives through the services we deliver.
• Interacting with others as servant leaders.
• Promoting an environment of shared strength through humility and gratitude for our shared talents.

Integrity
We will act with integrity by:

• Demonstrating that ethical behavior is a lifelong habit of honest and sincere action that benefits the profession and society.
• Fulfilling our social contract to perform our work and serve our communities with the veracity and honor that undergird our profession.
• Committing ourselves to the highest moral and ethical standards that will hold us accountable to our own actions and those of our institution, our colleagues, our students, and our community.

Justice
We will act justly by:

• Being sensitive to the complexities inherent in the diversity of our community.
• Striving to allocate the School’s limited resources in a manner that best meets the needs of our students, patients, faculty, and staff.
• Doing what is right through our exercise of collegiality, respect, and fairness in all our interactions.
Research Programs

Research plays a prominent role in the School of Dentistry. The Interdisciplinary Ph.D. program, M.S. degree programs (Oral & Craniofacial Sciences and Dental Hygiene Education) as well as the advanced dental programs all have strong research components. The intent of these programs is to expose the student to basic and translational research, and clinical application. Research and the scientific method are formal parts of the educational program of all dental school students, contributing to their education, as well as serving to advance science and dentistry. There is significant external grant funding supporting the research efforts. Many of the researchers who have obtained these grants serve as mentors for dental students participating in the Summer Scholars Program. In this selective program, a limited number of students participate in a nine-week research experience in the mentor’s area of research interest and present their project results at a national meeting.
Facilities

Clinic
The dental and dental hygiene clinics have more than 280 operatories with separate areas for pediatric dentistry, oral surgery and radiology. The clinic also contains an Innovation Clinic equipped with different operatory equipment provided by various dental manufacturers so students can test out various care delivery systems. Newer technology, such as electric handpieces, integrated ultrasonic units, Cerec acquisition and milling units, digital radiology (both plates and sensors), NOMAD units and axiUm (electronic patient record program) are available in the general clinic for use by students. The school uses an evidence-based approach to the disposables and supplies used in the clinic and recently incorporated a different impression system and started fabricating milled complete dentures.

The school is also home to Advanced Education Programs in Periodontics, Orthodontics, Endodontics and General Dentistry as well as joint programs in Oral Surgery and Pediatric Dentistry.

Classrooms
Three large lecture halls and five smaller classrooms/seminar rooms. All lecture halls are equipped with networked computers and modern projection systems.

Laboratories
Two dental preclinical simulation facilities with fully equipped working stations; an anatomical model laboratory.

Library
Located on the third floor of the School of Dentistry, the Dental Library supports the curricular, scholarly and research activities of the students, faculty and staff of the School of Dentistry. There are seating areas to accommodate varying study habits and forty-eight computer stations available for student work. Twenty-eight computers are arranged in a computer lab available for hands-on training. Housed within the library, physical collections include over four hundred journal titles and over seventeen thousand monographs.

Resources extend beyond the library walls through electronic resources offering nearly three hundred online databases, over two hundred online journal titles specific to Dentistry and thousands of journals in related Health Sciences, Chemistry, and Engineering that pertain to dental research and practice. The Dental Library is one of four libraries on the UMKC campus. All UMKC students have full access to all UMKC libraries, as well the opportunity to establish user accounts to the Linda Hall Library, the world’s foremost independent research library devoted to science, engineering and technology, located adjacent to the Volker campus.

Community Affiliations
Teaching relationships exist with many area community health centers, area hospitals, including Children’s Mercy Hospital, Saint Luke’s Hospital, Truman Medical Center and other community organization such as University Academy.

Miscellaneous
The school also supports a full-service Biomedical Communication Department that contributes significantly to its educational and administrative missions. The Health Sciences Bookstore supplies all textbook, and some supply needs of the student body; it is housed on the Health Sciences Campus.

Dental student spend time providing care in the Kansas City metro area and at Community Health Centers around the state.
Academic/Student Support Services

Academic Support Services
The School of Dentistry provides a comprehensive academic support program which includes time management, study strategies, and test taking skills. An interceptive system of continuous academic monitoring is in effect. Students who may be experiencing academic difficulty during a term are identified and advised. This results in an individualized plan of action to overcome any deficiencies. In addition, personal counseling assistance is available to all students who state or demonstrate a need.

Office of Student Programs
The Dental School’s Office of Student Programs is concerned with four primary areas of focus and responsibility:

• Admissions/recruitment
• Diversity Programming
• Student records
• Student support services

The majority of student services are provided by this office. In other cases, the student is referred to the appropriate University student affairs offices if necessary. Student Support Services provide financial aid (initial assistance and referral), counseling services (initial assistance and referral), a housing file and referral, and other services.

Financial Aid
Financial assistance is available from a number of sources, primarily those programs supported by federal legislation (such as the Federal Direct Loan programs and Health Professions Student Loan). Information on most financial aid programs available to School of Dentistry students may be found in the School of Dentistry section of the Financial Aid Charts at http://www.umkc.edu/finaid/. Additional information may be gathered from

Office of Student Programs
School of Dentistry
(816) 235-2080

or from

University of Missouri-Kansas City
Financial Aid and Scholarships Office
101 AC
5100 Rockhill Road
Kansas City, MO 64110-2499
(816) 235-1154

or from

University of Missouri-Kansas City
Financial Aid and Scholarships Office
1418 Health Sciences Building (HSB)
2464 Charlotte
Kansas City, MO 64108-2718
(816) 235-6783

The student should apply for aid as soon as possible after acceptance into the particular program of study.
Professional education in the health sciences manifests characteristics that are unique among advanced educational programs. Academic Standards of the School of Dentistry are established to ensure that the public, whose health will be entrusted to graduates of its programs, will receive care of professionally acceptable quality and that the care will be provided in an ethical and professional manner.

Standards of Scholarship

A. A predoctoral dental or pre-baccalaureate dental hygiene student must maintain at least a 2.5 grade point average each semester in their program. Failure to attain a 2.5 in any semester will result in the student being placed on probation for the next semester. In order for a semester to count toward removing a student from probation, the student must be enrolled full time - at least five hours in summer or 12 hours in fall or spring.

All students who are placed on probation should review their academic progress with the Chair of the Academic Standards Committee or the Coordinator of Academic Support Services and may be asked to appear before the Committee. A second consecutive semester of a below 2.5 grade point average will result in dismissal from the predoctoral or pre-baccalaureate dental hygiene program. A total of three semesters with GPA’s below 2.5 will result in dismissal from the students’ program. Two semesters separated by a summer session in which the student is enrolled in less than five graded hours will count as consecutive semesters. Two semesters separated by a leave of absence will count as consecutive semesters.

B. The failure of any course (receiving a grade of F or No Credit) will necessitate additional work to remove or replace the F or No Credit. This will consist of repeating the course the next time it is offered at the School of Dentistry or completion of a remediation plan. The course of action that is offered a student will be determined by the Academic Affairs Dean in consultation with the course director. If a course is repeated at UMKC, the student will receive whatever grade he or she earns in the repeated course. Both grades will appear on the student’s transcript and will be included in the student’s grade point average. With the approval of the course director, the Academic Affairs Dean may approve a plan to repeat a comparable course at another school.

If a remediation plan is to be developed, the plan will be developed by the course director with the approval of the Academic Affairs Dean. Remediation plan examples include:

1. Independent study for a number of weeks followed by an examination.
2. Remedial summer laboratory project followed by pre-clinical laboratory examination/s.
3. A series of written exercises followed by an examination.
4. Clinical mentoring followed by competency assessment
5. Other appropriate instructional assignments

If a student successfully completes a remediation plan his or her grade of F or No Credit will be changed to a grade of D (no credit to credit). A failure or No Credit in the remediated or repeated course/s will result in dismissal from the program.

A failed course may result in an altered curriculum plan which may result in an extension of the student’s academic program. This altered curriculum will be arranged with the approval of the Academic Affairs Dean in consultation with the course director/s. Students who fail (F or NC) more than one course in any semester will be dismissed from their academic program.

C. A DDS student who fails a National Dental Board Examination three times will be dismissed from the DDS program.

D. UMKC has a Latin Honors system of recognition of graduating undergraduate and first professional students. This recognizes those students who, in the opinion of the faculty, have met the Standards of Professional Conduct, as well as the Academic Standards of the School of Dentistry for each program. Effective Fall 2012, the GPA requirements for Latin Honors for dental hygiene students are as follows: Summa Cum Laude: 3.975-4.0 GPA; Magna Cum Laude: 3.950-3.974 GPA; Cum Laude: 3.900-3.949 GPA as of the end of the fourth term of the dental hygiene program. The academic requirements for dental students for Latin Honors are as follows: Summa Cum Laude: graduating in the top 5% of the class; Magna Cum Laude: graduating in the top 6-10%; Cum Laude: graduating in the top 11-20% (based on the GPA at the end of the ninth term of study in the dental program. All dental students so recognized must attain at least a GPA of 3.75 or beyond. This will be noted on the graduate’s transcript and diploma.

E. Academic standards for advanced education students will be established and monitored through the Advanced Education Committee.

Standards of Professional Conduct

Students* in the dental, dental hygiene and advanced education programs at the University of Missouri-Kansas City School of Dentistry are expected to conduct themselves in accordance with the high ethical standards required of health care professionals. Graduates will be required to take responsibility for the health and well-being of their patients and as such are expected to demonstrate patterns of behavior that are consistent with professional standards and deserving of the public’s trust. The Standards of Professional Conduct are drawn from the Principles of Ethics and Code of Professional Conduct of the American Dental Association, and the American Dental Hygienists’ Association Code of Ethics. Students should aspire to meet the high ideals of their professions which may exceed their legal duties, but must meet the minimum standards expressed in the School of Dentistry’s Standards of Professional Conduct.

A. Dental and dental hygiene students must achieve and consistently demonstrate concern for patients, peers, and others. Dental and dental hygiene students have a duty to ensure:
1. That patients are treated according to the School of Dentistry’s Standards of Care, and their preferences and desires must be considered in treatment decisions.

2. Patient confidentiality in the entire range of the provider-patient relationship which includes dental records.

3. That no harm or potential harm is done to the patient either through intent, ignorance, lack of preparation for the patient encounter, lack of skill, or personal impairment of any kind.

4. That no patient is “abandoned” which is defined as discontinuance of care without just cause and without giving the patient adequate notice and the opportunity to obtain the services of another provider.

5. That the patient’s welfare (i.e. the provision of competent and timely delivery of dental care within the bounds of clinical circumstances as presented by the patient such as needs, desires and values) is paramount and takes precedence above all else. This also includes the obligation to a) identify and report perioral signs of abuse and neglect and to consult with faculty to report suspected cases to proper authorities as required by law; and, b) report instances of faulty treatment whether intentional or not, to the appropriate faculty member.

6. That all people including patients, staff, faculty and all other individuals are treated fairly, with dignity and respect, and without prejudice.

7. All standards and requirements of patient care established by the School of Dentistry are followed at all times.

B. Dental and dental hygiene students’ behavior must exemplify the highest moral and ethical standards. The following represent conduct that is incompatible with these standards:

1. Any behavior that tends to gain an unfair advantage for any student in an academic matter. This includes, but is not necessarily limited to, the following guidelines:

   a. No student shall cheat. Cheating includes but is not limited to unauthorized copying from the work of another student, using notes or other materials not authorized during an examination, giving or receiving information or assistance on work when it is expected that a student will do his/her own work, or engaging in any similar act that violates the concept of academic integrity. Cheating may occur on an examination, test, quiz, laboratory work, report, out of class assignment or any other work submitted by a student to fulfill course requirements and presented as solely the work of the student. Cheating also involves knowingly giving any unauthorized aid to another student during the course of an examination (classroom, laboratory, or clinical) and acquiring by any means knowledge of the contents of an examination yet to be given.

   b. No student shall represent the work of another as their own. This includes fraudulently claiming credit for any classroom, clinical, laboratory, or other procedure or assignment performed by an unauthorized person, including a fellow student.

   c. No student shall commit plagiarism-representing the words of another as their own on work submitted to fulfill course requirements. Submitting, as one’s own, work done by or copied from another includes work done by a fellow student, work done by a previous student, or work done by anyone other than the student responsible for the assignment.

   d. No students shall facilitate academic dishonesty-intentionally or knowingly helping or attempting to help another to commit an act of academic dishonesty.

   e. No student shall falsify or misuse university records or documents. Such misuse includes falsification of patient records, the unauthorized use of computer accounts, alteration of passwords, violation of library procedures or other intentional misuse or destruction of educational materials.

   f. No student shall create a disruption in the learning process through behaviors that are not conducive to an academic and patient care environment.

C. Dental and dental hygiene students must achieve and consistently demonstrate acceptable levels of personal hygiene and dress.

Anyone who has reasonable cause to believe that a student has acted unethically is obligated to bring the matter to the attention of the assistant dean for student programs or his/her designee who will follow the process identified in the Preliminary Procedures section of the UMKC School of Dentistry Honor Council Due Process Procedures for Violations of the Standards of Professional Conduct, to determine whether there has been a violation and whether charges should be brought. Deficiencies in conduct as listed in the School of Dentistry Standards of Professional Conduct, or as outlined in Section 200.010, Standards of Conduct, of the University of Missouri Collected Rules and Regulations, by a dental or dental hygiene student shall be reported to the assistant dean for student programs or his/her representative, who will initiate the process as listed under “Preliminary Procedures.”
Grading System

The grading and grade-point system used by all academic programs in the School of Dentistry is defined by the University. It is outlined in the General Graduate Academic Regulations and Information section of this catalog.

Incomplete Grades
An instructor may give an incomplete grade (I) to a student who, because of illness or other valid reasons beyond the student’s control, has been unable to complete the work in a course. A student who receives an incomplete, and who subsequently does not elect to withdraw from the course, must complete the required work by a date specified by the instructor. Failure to complete required work by this date is cause for the incomplete to be changed to an F (failure without credit). This is exclusive of those courses that are considered directed individual studies, internships, special topics, practicums, and research and thesis courses.

An incomplete is appropriate when enough work in the course has been completed that the student can finish the remaining work without re-enrolling in the course in question or attending additional classes. Otherwise students should initiate withdrawal (but only with permission).

Students may not re-enroll in a course for which an incomplete remains on their records.
Degrees Offered

The School of Dentistry offers a four-year professional program leading to the doctor of dental surgery (D.D.S.) degree, and the bachelor of science degree in dental hygiene (B.S.). The School offers graduate programs leading to a master of science degree in oral and craniofacial sciences or in dental hygiene education (M.S.) (http://dentistry.umkc.edu/Future_Students/DHMasterScience.shtml), and advanced education certificates in recognized dental clinical specialties. In addition, the school participates in UMKC’s Interdisciplinary Ph.D. program (p. 990) through the discipline of oral and craniofacial sciences. Please refer to the School of Graduate Studies section of the catalog for information on admission criteria and degree requirements for the Ph.D program.
Outreach Programs

In keeping with its goal of developing a sense of professional and societal responsibilities, and an awareness of community needs and problems in its students, the school offers numerous outreach opportunities. Dental and dental hygiene students provide oral health care in over 30 community-based health centers. The dental school also maintains affiliations with groups invested in oral health promotion, including University Academy, Kansas City Free Health Clinic, Give Kids a Smile, Missouri and Kansas Missions of Mercy, and Students Take Action.
Advanced Education Programs

Chair, Advanced Education Committee:
Mary P. Walker, DDS, PhD, Associate Dean for Research and Graduate Programs

The School of Dentistry offers curricula leading to advanced education dental certificates in each of four clinical dental specialty areas (Endodontics, Orthodontics and Dentofacial Orthopedics, and Periodontics) and a certificate in Advanced Education in General Dentistry (AEGD). In addition, the School of Dentistry offers curricula leading to Master of Science graduate degrees in either Oral and Craniofacial Sciences or Dental Hygiene Education. The School participates in the Interdisciplinary PhD program through the Department of Oral and Craniofacial Sciences (OCS). The OCS department research focus areas are: Biomaterials/Bioengineering of Biological Tissues & Replacements, Mineralized Tissue Biology and Translational and Clinical Research.

Application Information & Deadlines

Application Information

All applicants to the advanced education certificate programs (Advanced Education in General Dentistry, Endodontics, Orthodontics and Dentofacial Orthopedics, and Periodontics) require the Postdoctoral Application Support Services (PASS) application available at www.adea.org (http://www.adea.org). All sections of the PASS application should be completed fully. Official dental school transcripts should be submitted directly to PASS. A minimum dental school 3.0 GPA is required for applicants to all Advanced Education programs. National dental board scores should be reported in the PASS “institutional evaluation” form. Since the NBDE scores are reported on the “Institutional Evaluation,” official scores do not need to be sent to UMKC.

The GRE is required for all applicants applying to the Orthodontics program and is highly recommended for those applying to the Periodontics program. (For any Periodontics or Endodontics selected applicants interested in applying later for concurrent enrollment in the OCS MS program, the GRE will be required.) Applicants to the Endodontics program are required to take the Advanced Dental Admission Test (ADAT). The ADAT is preferred but not required for Advanced Education in General Dentistry; and for the Periodontics program, ADAT is not required, but optional. Across programs, scores should be self-reported on the PASS application. Official GRE scores should be submitted to directly to UMKC (GRE code is 6872). Be aware that approximately three weeks are required by the service to process PASS applications and deliver them to the designated programs. The length of this processing period should be considered by the candidate in order to meet relevant application deadlines. An applicant copy of the PASS application should not be sent to UMKC.

Applicants applying to any of the advanced education programs must be a U.S. citizen or permanent resident. Applicants must also submit evidence of graduation from a school of dentistry accredited by the American Dental Association or the Canadian Dental Association.

Residents accepted into the Endodontics, Orthodontics, and Periodontics programs must successfully complete a U.S. regional or equivalent Canadian clinical licensure exam prior to or no later than the end of the first year of residency.

All applicants are required to submit the Institutional Evaluation AND Professional Evaluation Form (PEF) as part of their completed PASS application. A minimum of three professional evaluators (dental faculty) are required to submit evaluations for the PEF. Additional letters of recommendation should not be sent to UMKC.

Additional information, as identified below, must be submitted directly to the UMKC School of Dentistry, Office of Student Programs, 650 East 25th Street, Kansas City, MO 64108.

- Official transcripts from degree granting undergraduate and graduate institution(s). Additionally, if a large number of pre-dental prerequisites were taken outside the degree granting institution, those transcripts should be submitted too. (Applicants do not need to submit dental school transcripts since they are provided to us through PASS).
- A copy of permanent resident card (if applicable).
- A copy of dental license (if applicable).
- A UMKC application and application fee are required of all applicants. Upon receipt of your PASS materials you will be emailed a link to the general UMKC application

Additional resumes, CVs, personal photos, or information not received as part of the PASS application will be destroyed upon receipt.

The advanced education certificate programs in Periodontics or Orthodontics & Dentofacial Orthopedics participate in the National Matching Services (MATCH) process. Candidates to these programs must also register for this service within the ADEA PASS applicant portal (www.adea.org (http://www.adea.org)). There are two phases of the MATCH process, each with its deadline date for receipt of Rank Order List forms from applicants. The Phase I deadline (typically toward the end of November each year) is for applicants to the Periodontics or Orthodontics & Dentofacial Orthopedics program.

General admissions questions concerning advanced education programs should be directed to the Office of Student Programs at (816) 235-6322. However, specific questions regarding any advanced education program should be directed to the pertinent program director. Advanced education program directors along with their telephone numbers are identified in a subsequent section.
**Application Deadline**

Application deadline dates for advanced dental certificate programs are as follows:

<table>
<thead>
<tr>
<th>Program</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Education in General Dentistry</td>
<td>October 1</td>
</tr>
<tr>
<td>Endodontics</td>
<td>August 1</td>
</tr>
<tr>
<td>Orthodontics</td>
<td>September 1</td>
</tr>
<tr>
<td>Periodontics</td>
<td>August 1</td>
</tr>
</tbody>
</table>

The deadline date for receipt of applications at the school is one year before the anticipated enrollment in program.

**Financial Assistance**

Please be advised that the information provided here is of a general nature only.

Newly admitted advanced dental education students (such as AEGD, Endodontics, Orthodontics, and Periodontics) will receive information regarding financial aid. Students who are interested in obtaining financial aid are advised to contact the Hospital Hill Financial Aid Office for more details and guidance.

Hospital Hill Financial Aid Office - Location Address: 1418 Health Sciences Building on UMKC Hospital Hill Campus.  
Office Hours: 8:00am-5:00pm Monday-Thursday  
(816) 235-6783  
FinAidHospitalHill@umkc.edu

There are three types of financial aid for advanced education students:

1. Federal Stafford Unsubsidized Loans
2. Federal Graduate PLUS Loans
3. Private Student Loans

Separate financial aid applications are required for the summer term and for the fall/spring terms. Students apply for loans via the FAFSA website [www.fafsa.gov](http://www.fafsa.gov). It advised that students consult the Hospital Hill Financial Aid Office for the priority application deadline and guidance in the application process.

**Enrollment Fees**

Typical credit hour enrollment for advanced education students is 5 credits in the Summer semester and 6 credit hours in the Fall and Spring semesters. This enrollment model applies for AEGD, Endodontics, Orthodontics and Dentofacial Orthopedics, and Periodontics certificate programs.

When taking 6 credit hours or fewer each semester, Missouri non-residents are not required to pay the out-of-state tuition rate. To estimate costs for attendance, please visit the cashier’s website: [http://www.umkc.edu/finadmin/cashiers/dentistry-tuition-fee-rates.asp](http://www.umkc.edu/finadmin/cashiers/dentistry-tuition-fee-rates.asp).

**Academic Standards/Procedures: Advanced Education Students**

The following academic standards and the procedures to be used in dealing with cases of academic difficulty apply to students in all advanced education/graduate programs of the School of Dentistry.

**Standards of Scholarship**

1. Advanced education students, regardless of classification, must maintain a 3.0 (B) GPA for all coursework taken at UMKC.
2. Advanced education students must maintain a 3.0 (B) GPA in their dental certificate specialty coursework.
3. Any materials pertaining to patient records, program records, and any materials produced in relation to an Advanced Education or Graduate Program are the property of the University. Such materials include photos, study models, case presentations, research proposal, research data, thesis, research-related presentations and must be saved and preserved at designated storage sites. While students can have copies of presentations, data, and written documents for their records, students should not remove or delete these files and associated information from school computers and server spaces. Compliance with this policy is mandatory for continued program participation and graduation and will be monitored.

**Probation Policy**

Whenever the overall GPA for UMKC courses taken for credit by an advanced education student of any classification falls below 3.0 (B), the student's status for the next term becomes "On probation - See principal graduate advisor." The principal graduate advisor will review the student's progress and provide counsel, and the following conditions apply:

1. Any advanced education or graduate student on probation who is not restored to good academic standing by the end of two successive semesters will be declared ineligible to re-enroll.
2. While on probation, an advanced education or graduate student must achieve a 3.0 term GPA to enroll for the ensuing term.
3. An advanced education or graduate student on probation will not be restored to good standing until a cumulative graduate-credit GPA of at least 3.0 is achieved.

**Dismissal**

**Following Academic Probation**
1. An advanced education or graduate student who is on probation and fails to attain an overall GPA of at least 3.0 by the end of two successive semesters will be dismissed from the program.
2. An advanced education or graduate student who is on probation and fails to attain a 3.0 term GPA for the succeeding term will be dismissed.
3. An advanced education or graduate student who receives more than four credit hours of 2.0 (C) grades or a D or F grade in any course will be dismissed.

**Due to Unsatisfactory Progress or Performance**
When an advanced education program, irrespective of a student's grade-point average, considers an advanced education student's performance to be unsatisfactory, the Program Director may recommend to Associate Dean for Research & Graduate Programs that the student be declared ineligible for further study. The Associate Dean reviews the recommendation and discusses with the Advanced Education Committee prior to notifying the student of the decision.

**Appeal**
Any student who is dismissed from the program has the right to appeal that decision. Appeals shall be made in writing to the Associate Dean for Research and Graduate Programs within one week from the time the student received a notice of dismissal. The Associate Dean for Research and Graduate Programs in conjunction with the Chair of the Advanced Education Committee shall select a hearing panel of five members of the Advanced Education Committee to hear the student's appeal. At least one member of the hearing panel will be a student. The program director of the program in which the appealing student is enrolled shall be ineligible to sit on the panel. The Hearing Panel will be chaired by the Associate Dean for Research and Graduate Programs. A meeting of the Hearing Panel will be scheduled within two weeks of the receipt of the student's appeal. During the time the appeal process is being conducted the student shall be allowed to continue in the program. The Hearing Panel shall be provided with written statements from the student and the Program Director as well as all relevant records and documents. Both the Program Director and his or her designee and the appealing student must attend the hearing to provide additional information and answer questions from the Hearing Panel. Other individuals who have information relevant to the situation may be invited to present their information and answer questions for the committee. The student may have an advisor present to advise the student, but this advisor shall be limited to providing advice to the student.

After reviewing the information and conducting the hearing, the Hearing Panel shall make its recommendation regarding disposition of the case to the Dean. All five appointed members of the hearing panel shall have a vote. In case of a tie, the Associate Dean for Research and Graduate Programs shall cast the deciding vote. The Dean of the School of Dentistry will make the final decision and communicate that decision to the student and the Program Director.

**Students in Cooperative Programs**
Students enrolled in programs operated jointly by the School of Dentistry, School of Medicine, and other institutions, such as Children's Mercy Hospital and Truman Medical Center, must remain in good standing with both organizations cooperating in the program. A student who is dismissed by either of the cooperating institutions is ineligible to continue in the program.

**Graduate**

**Advanced Education Certificate Programs**
- Dental Advanced Education Certificate Programs:
  - Advanced Education in General Dentistry
  - Endodontics
  - Orthodontics and Dentofacial Orthopedics
  - Periodontics

**Biological Sciences Courses**
BIO-SCI 5700 Biomaterials Teaching Credits: 2
Through this course, students will acquire teaching experience in graduate and undergraduate biomaterials.

BIO-SCI 5706 Growth and Development I Credit: 1
A course designed to teach the general principles of normal and abnormal physical, psychological and social growth and development of children and adolescents. The growth and development of the craniofacial structures is emphasized. The diagnosis of malocclusions is stressed. Consideration is given to possible approaches to their treatment.
BIO-SCI 5707 Growth and Development II Credits: 1-2
A comprehensive study of the genetical aspects of growth and development with special analysis of the molecular control of these processes by both intrinsic and epigenetic factors.
Prerequisites: BIO-SCI 5706.

BIO-SCI 5710 Genetics and Biochemistry of Cranial Facial Biology Credits: 2
Biochemistry of oral structures and the effect of oral diseases on these structures. This course may not be used to satisfy Cell Biology and Biophysics or Molecular Biology and Biochemistry discipline-specific requirements for the Interdisciplinary Ph.D. programs.

BIO-SCI 5739 Biomaterials for the Dental Specialist Credit: 1
Discussion of basic biomaterials principles and terminology including explanation of physical, mechanical and surface chemical properties, metallurgy, polymer chemistry, ceramics and composites. Clinical examples of how these principles apply to Prosthodontics, Endodontics and Orthodontics will be presented. Students cannot take both this course and BIO-SCI 5742 for credit.

BIO-SCI 5740 Oral Pathology I Credits: 2
A study of the clinical and histopathologic features of oral diseases, including inflammatory, degenerative, metabolic, and neoplastic diseases and developmental disturbances.

BIO-SCI 5742 Biomaterials for the Restorative and General Dentist Credits: 2
A thorough discussion of basic biomaterials principles and how they apply to the practice of general and restorative dentistry. Students cannot take both this course and BIO-SCI 5739 for credit.

BIO-SCI 5743 Advanced Seminar in Dental Biomaterials Credits: 1-2
The use and behavior of dental biomaterials in Pediatric Dentistry, Prosthodontics, Orthodontics, and Restorative Dentistry will be discussed in depth. Current basic and clinical literature related to these areas will be discussed and research information to improve dental practice will be presented. Prerequisite: BIO-SCI 5739 (or BIO-SCI 5742).

BIO-SCI 5747 Research Instrumentation Used in Dental Biomaterials Credits: 2-4
A discussion and laboratory use of instrumentation employed in dental biomaterials research. Practical hands-on experience will include calibration and use of specific research equipment including the Instron, metallurgical mounting and polishing equipment, measuring microscope, metallograph, and contact angle goniometer.

BIO-SCI 5750 Special Problems in Dental Biomaterials Credits: 2-4
The student will select or be assigned a special research problem including appropriate literature reviews of a special topic in dental biomaterials. Emphasis will be placed on the correlation between basic and clinical research. The design and conduct of clinical research will be discussed.

BIO-SCI 5751 Elements of the Scientific Method Credits: 1-2
Through individualized instruction with thesis committee chair, student will conduct a literature review in preparation for developing a research question leading to the thesis research proposal. Students will select and rotate through a minimum of four laboratories in the Department of Oral Biology conducting a short research project in each. At the end of the semester, a report is required reviewing the research project and the instrumentation in each laboratory. Students are also required to attend the weekly Department of Oral Biology Seminar Series and the monthly Professional Development Seminar Series. Research presentations cover a variety of biological, engineering and psychological disciplines relevant to oral science education and the oral health care profession. Presentations will be by faculty, students, and invited guest lecturers.

BIO-SCI 5752 Research Methods in Oral and Craniofacial Sciences Credits: 1-5
Student will write the thesis research proposal in consultation with committee chair and members plus obtain appropriate IRB and/or IACUC approvals. For the MS degree qualifying exam, the student will write the research proposal, present the research proposal at a committee meeting, and answer related questions. Following the successful completion of the qualifying exam, the research proposal is the basis of the MS thesis project. As the student identifies a research focus for the dissertation project, they will begin reviewing the literature.

BIO-SCI 5759 Special Problems in Pharmacology Credits: 2
Pharmacologic and therapeutic problems of special interest in the practice of dentistry.

BIO-SCI 5760 Physiology of Oral Mineralized Tissues Credits: 2
A study of the physiology of the oral hard tissues with emphasis on the mechanisms of the growth, remodeling, and healing of maxillomandibular bones and on the mechanism of dentinogenesis. This course may not be used to satisfy Cell Biology and Biophysics or Molecular Biology and Biochemistry discipline-specific requirements for the Interdisciplinary Ph.D. program.

BIO-SCI 5780 Teaching Of Dentistry Credits: 1-2
A consideration of the problems of teaching in dental schools. Each department of the School of Dentistry will report on its teaching methods. The student will observe lectures and laboratory teaching in each department.

BIO-SCI 5790 Directed Research In Oral and Craniofacial Sciences Credits: 1-6
Student utilizes beginning research skills to design, conduct and report an individual research project under the direction of the faculty.

BIO-SCI 5799 Research And Thesis Credits: 1-9
The satisfactory completion of an original research project. Results of the research and critical review of the pertinent literature are incorporated into a thesis. Credit is awarded after the student's thesis is successfully defended and accepted by the School of Graduate Studies.
BIO-SCI 5801 Readings in Immunology Credits: 1-3
A detailed study of special topics in immunology. Specific topics to be arranged with the instructor. This course may be repeated by doctoral students for a maximum of 3 credit hours.
Prerequisites: LS-MCRB 435.

BIO-SCI 5802 Immunopathology Credits: 2
A detailed study of selected topics in immunopathology with emphasis on physicochemical barriers such as cutaneous and mucosal immune systems.
Prerequisites: LS-MCRB 435.

BIO-SCI 5805 Molecular Biology of Oral Microflora Credits: 2-3
Lecture and discussion. The course will provide an overview of the ecology of oral microbial flora and its role in oral health and disease. Students will examine the taxonomy and ecology of normal and pathogenic oral microbial flora, acquisition of the oral microbiota and the formation of dental plaque as a biofilm. The course will also explore other aspects of microbial biology, such as; bacterial virulence factors and pathogenesis; host defense mechanisms; systemic complications of periodontal disease; antibiotics and antibiotic resistance. The second part of the course will review the effect of recent advances in molecular biology and protein biochemistry on oral diagnosis and treatment.

BIO-SCI 5830 Structural Characterization of Dental Biomaterials Credits: 3
A detailed study of the techniques commonly used to determine the composition and structure of dental biomaterials. Surface and near-surface characterization techniques will be emphasized. The student will be expected to complete laboratory projects on the scanning and transmission electron microscopies available in the School of Dentistry.

BIO-SCI 5899 Required Graduate Enrollment Credit: 1

Dentistry Courses

DENT 6305 Operative Dentistry I Lecture Credit: 1
An introduction to the prevention and principles of the restorative treatment of dental caries.

DENT 6305L Operative Dentistry I Laboratory Credits: 2
Restorative procedures discussed in DENT 6305 are performed on laboratory manikins.

DENT 6306 Transitions: An Introduction to the Profession and Practice of Dentistry Credits: 0.5
This course is the first in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the knowledge, skills and values of ethics, professionalism and practice management. The courses use self-assessment and strategic planning as foundations and lead the students through identification of personal and professional aspirations, and culminate in building each student's competence in dental practice management.

DENT 6307 Transitions: Introduction to the Profession & Practice of Dentistry II Credits: 0.5
This course is the second in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course builds on strategic planning foundation to gain an understanding of personal financial management in the context of personal and professional goals in the field of dentistry.

DENT 6310C Patient Care I Credits: 3
This course introduces the dental student to the foundation knowledge and skills and values for the provision of oral health care. This includes infection control, cubicle set-up and breakdown, dental assisting, patient/operator positioning, patient vital signs, radiographic techniques, patient communication and basic concepts of oral health and disease. Students will assist third and fourth year students in various clinical areas after appropriate preparation, and will provide oral hygiene instruction for elementary age students.

DENT 6312 Dental Behavioral Science I Credits: 1-2
An introduction to the basic principles of behavioral science as they relate to oral self-care and professional practice. Topics include basic principles of human behavior, adherence, motivational interviewing, dental fears, chronic orofacial pain, and conflict management. Students will complete an in-depth motivational case report and a communication competency exam with selected patients.

DENT 6313 Applied Biochemistry Credits: 4
This is a course geared to the biomedical foundation knowledge of dental students. The course is composed of six sections focused on clinically important topic areas each cumulating with a clinical presentation. Course content will intentionally emphasize new knowledge areas in cancer, inflammation, genetic diseases, metabolic diseases, mineralized tissues in health and disease, oral health, hormone actin, and blood coagulation/wound healing.
Prerequisites: an Undergraduate Biochemistry course.

DENT 6314C Patient Care II Credits: 2
This course builds on the skills introduced in DENT 6310C with a review and the continuation of the clinical rotations. In addition, students will learn the steps of a basic oral diagnosis, and will demonstrate their understanding with graded peer exams and by performing selected portions of a diagnosis on two clinic patients with the assistance of a 3rd or 4th year dental student.
DENT 6315C Patient Care III Credits: 3
This course introduces preventive theory necessary to provide patient care. Students are introduced to fundamental clinical procedures including
dental deposits, gingival assessment, identification and classification of periodontal diseases, and periodontal probing. The information learned in
this course continues in fall, second year (Patient Care IV) where student are introduced to basic periodontal instrumentation skills to assess and treat simple patients.

DENT 6316 Dental Morphology Credits: 3
This lecture/laboratory course introduces the student to the anatomy of the oral cavity and structures of the stomatognathic system. A thorough
review of dental anatomy and dental terminology of the primary and permanent dentition will be presented. The students' knowledge of dental
morphology will be reinforced by constructing wax models of permanent dentition.

DENT 6317 Fundamentals of Occlusion and Fixed Prosthodontics Credits: 3
This lecture laboratory course will review the fundamental principles of dental occlusion, the anatomy and function of the stomatognathic system, and
foundational knowledge of fixed prosthodontics.

DENT 6319 Ethics and Professionalism Credit: 1
An introduction to basic concepts of ethics and professionalism. Systems of ethical decision making are introduced and applied in the context of oral
health care and interprofessional practice. Students will explore their own ethical values and apply this knowledge to issues in professional education.

DENT 6328 Clinical Decision Making in Dentistry Credits: 1-2
An experiential course that uses current controversies in to facilitate development of skills needed for making valid decision in clinical dentistry.
Students will apply basic principles of database searching, research design and methodology to the critical analysis of contemporary dental literature. This one-hour course will: 1) Provide you with sufficient information to perform week on the portions of the national boards that deal with research design and methodology; and , 2) give you skills sufficient to search for, locate, and evaluate valid information related to clinical questions in contemporary dentistry.

DENT 6350 Introduction To The Histopathology Of Oral Tissues Credits: 2
A comparison of the microscopic anatomy of healthy and diseased oral tissues.

DENT 6352 Patient Care IV Credits: 1-3
This course is a continuation of DENT 6310C, DENT 6314C, and DENT 6315C which introduces preventive theory and the instrumentation skills
necessary to provide patient care. Students are introduced to fundamental clinical procedures including plaque control, gingival assessment, and
periodontal probing. Review of radiology, radiographic technique and interpretation, assisting skills, diagnosis and periodontal instrumentation will be
implemented in this course.

DENT 6390 Dental Research Experience Credit: 1
This independent study course focuses upon experience gained in both an area of dental research as well as the process of research in working with an established dental researcher.

DENT 6402 Transitions: Introduction to the Profession and Practice of Dentistry III Credits: 0.5
This course is the third in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and
values of professionalism, practice management and ethics. This course builds on strategic planning foundation established in year one to gain an
understanding planning for development of a dental practice.

DENT 6403 Transitions: Introduction to the Profession & Practice of Dentistry IV Credits: 0.5
This course is the fourth in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills
and values of professionalism, practice management and ethics. This course continues the strategic planning framework as the dental practice
business plan is developed. The focus for this course is on managing the finances of a dental practice.

DENT 6410 Operative Dentistry II Lecture Credit: 1
A continuation of DENT 6305. Principles of cavity preparation, materials and techniques are stressed.

DENT 6410L Operative Dentistry II Laboratory Credits: 2
A continuation of DENT 6305L. Restorative procedures are performed on laboratory manikins and extracted teeth.

DENT 6411 Operative Dentistry III Lecture Credit: 1
A continuation of DENT 6410.

DENT 6412 Introduction to Oral Surgery & Pain Management I Credit: 1
This course introduces students to foundational concepts of oral surgery and pain management. The course consists of lectures, demonstration
and pre-clinical practice and simulation in the safe and effective use of local anesthetics in dentistry and basic intraoral surgical procedures. This course includes patient assessment for intraoral procedures, and instrumentation and techniques required to anesthetize a patient and extract teeth. Students will participate in practical experiences to begin to build skills in the necessary techniques to manage patient’s pain and perform basic surgical procedures.

DENT 6414 Pathology I Lecture Credits: 4
The general etiology of disease; circulatory and metabolic disorders; degenerative processes; inflammation; infection and immunity; tumors; and organ system pathology.

DENT 6415 Pathology II Credits: 2
A study of developmental defects, inflammatory diseases, and neoplasia of the oral region.
DENT 6416 Complete Removable Prosthodontics Credit: 1
This course will introduce the dental student to concepts and procedures involved in the rehabilitation of the completely edentulous patient. Information presented will include proper clinical examination techniques, an evaluation of the findings and their impact on treatment and treatment options. The student will become familiar with the clinical steps involved in the fabrication of complete dentures and the rationale supporting these procedures. Laboratory steps as they relate to clinical treatment procedures will also be discussed. There will be additional information presented regarding single complete dentures, immediate dentures, overdentures, implant-retained complete dentures, and rebasing and relining techniques.

DENT 6416L Complete Removable Prosthodontics I Laboratory Credits: 2
This course will introduce the student to the clinical and laboratory steps involved in the fabrication of complete dentures. Students will learn how to manipulate the materials involved as well as indications for their usage. The course will be structured to closely resemble the clinical experience in concept and techniques where feasible. The goal is to teach the skills necessary to manage edentulous patients and also to teach in detail the entire process of complete denture fabrication. This will enhance overall dental skills and provide a knowledge base with which to critically evaluate laboratory procedures and results. This laboratory course provides the student the opportunity to acquire the foundational skills, which must be mastered before clinical competency, can be attained. A goal of the course is to provide the opportunity for the student to acquire the hand/eye skills, which are necessary to treat the edentulous patient in a clinical setting.

DENT 6417 Removable Partial Prosthodontics Credit: 1
The study of the terminology, design, theory, and basic procedures in removable partial denture construction in addition to diagnosis and treatment planning will be stressed through the lectures.

DENT 6417L Removable Partial Prosthodontics Laboratory Credits: 2
In the laboratory the students will learn to plan, design, and prepare the mouth for a prosthesis. They will demonstrate understanding of concepts and methods by applying them to the solution of problems. The student will: develop critical thinking and problem solving related to diagnosis, planning and treatment; make decisions based on current empirical and published evidence; make custom trays for final impression, and record bases and wax rims for recording jaw relationship.

DENT 6420 Periodontics I Credits: 2
It is the scope of this course to introduce the basic disease mechanisms involved in the evolution of the inflammatory periodontal lesion; i.e., the interaction of the host tissues with the oral microbial flora. The course will cover the entire range of possible periodontal diseases, ranging from simple marginal gingivitis to AIDS related necrotizing ulcerative periodontitis. Further, the course will continually reinforce the science of periodontology and its overwhelming relationship to the clinical practice of periodontics.

DENT 6422 Fixed Prosthodontics I Lecture Credit: 1
This course is designed to provide the foundation knowledge needed by the novice to formulate clinical judgments in the areas of treatment planning, tooth preparation, and the selection and use of dental biomaterials for the restoration of single teeth with fixed prosthodontic restorations. The topics covered also include provisional restorations, impressions materials and technique, dental cements, and laboratory aspects involved in the fabrication of cast gold crowns.

DENT 6422L Fixed Prosthodontics I Laboratory Credits: 2
The second course in the fixed prosthodontic curriculum is designed to provide foundation knowledge needed by the novice to formulate clinical judgments in the areas of treatment planning, tooth preparation, and the selection and use of dental biomaterials for the restoration of single teeth with fixed partial dentures and implants.

DENT 6423 Fixed Prosthodontics II Lecture Credit: 1
The second course in the fixed prosthodontic curriculum is designed to provide foundation knowledge needed by the novice to formulate clinical judgments in the areas of treatment planning, tooth preparation, and the selection and use of dental biomaterials for the restoration of missing teeth with fixed partial dentures and implants.

DENT 6423L Fixed Prosthodontics II Laboratory Credits: 2
The second laboratory course in fixed prosthodontics is focused on the replacement of missing teeth with fixed partial dentures and implant restoration. Projects build the skills to begin development of clinical competence in fixed partial dentures and implant restorations.

DENT 6424 Dental Management of the Medically Complex Patient Credits: 2
This course focuses on the understanding of medical conditions and compromised states that patients present with, enabling the clinician to develop dental treatment plans that are safe and compatible with their medical status.

DENT 6426 Oral Radiology Lecture Credits: 2
Radiation physics, radiation biology, quality assurance, imaging principles, radiation hygiene, radiographic interpretation and techniques of intra-oral survey are presented.

DENT 6429 Dental Behavioral Science II Credit: 1
This course builds upon the foundational material with a focus on dealing with challenging patients and managing professional stress. Students will complete an in-depth anxiety management project and communication competency exam with selected patients.

DENT 6431 Pediatric Dentistry I Lecture Credit: 1
The overall goal of this didactic course is to provide the student with the fundamental knowledge necessary to provide comprehensive dental care to pediatric patients. In addition, this course strives to develop an attitude towards learning such that the student will seek opportunities to further his/her knowledge and skills in pediatric dentistry subsequent to graduation. Finally, this course is intended to sensitize students to their responsibility as health care providers for the children in their community.
DENT 6435 Endodontics I Lecture Credit: 1
An introductory course in endodontics emphasizing pulp and periapical biology and pathology. Extra emphasis will be placed on endodontic diagnosis of non-odontogenic facial pain, problems with anesthesia in endodontics and treatment planning.

DENT 6436 Orthodontics: Growth And Development Credit: 1
Certain malocclusions and dental deformities can occur due to variations in growth and normal developmental process. In order to treat and understand these problems, an in-depth and thorough understanding of craniofacial growth and development is necessary. Understanding how and when the face and head is actively growing will enable the clinician to redirect facial growth to reduce the severity of forming skeletal/dental malocclusions. Since orthodontic treatment may involve the modification and/or manipulation of skeletal growth, it is important not only to understand dental development but also physical, physiologic and psychosocial development. This course is designed to address these needs.

DENT 6439 Medical Emergencies in the Dental Office Credit: 1
The purpose of this course is to comprehensively review the management of common medical emergency situations that a dentist is likely to encounter in the dental office. In this course, the students will gain a thorough understanding of the preventive measures and appropriate response to medical emergencies including the appropriate use of the Emergency Medical System. Moreover, pertinent information regarding the patho-physiology associated with common medical emergencies will be discussed.

DENT 6440 Introduction to Oral Surgery & Pain Management I Credit: 1
This course builds on the fundamental concepts in oral surgery and pain management presented in Dent 6412 to prepare students for patient care in oral surgery and management of pain for provision of dental care. The lectures will focus on treatment needs of the medically compromised surgical patient, ability to safely and adequately deliver local anesthesia, non-pharmacological management of pain as well as OTC and prescription medications for pain management. The course will also focus on appropriate case selection for a general dentist. In the pre-clinical lab portion of the course, students will participate in exodontia simulation and local anesthesia administration.

DENT 6442 Endodontics II Lecture Credit: 1
A continuation of the study of endodontics emphasizing non-surgical endodontics, surgical endodontics and post-endodontic treatment.

DENT 6442L Endodontics Laboratory Credits: 2
The preparation and filling of root canals of extracted teeth in the laboratory setting.

DENT 6460C Review of Pre-Clinical Dentistry Credits: 0.5
A combination of online lectures, selected readings and independent study designed to reinforce and integrate concepts contained in the pre-clinical dental curriculum.

DENT 6501C Intro to Comprehensive Patient Care Credits: 1-10
The purpose of this course is to introduce the student to the clinical environment and to familiarize him/her with comprehensive patient care. In addition, it allows the student to develop and interpret basic diagnostic aids that enable him/her to arrive at a diagnosis and treatment outline, the beginning steps of comprehensive care. Patient care is provided following the outlined treatment plan. The student will apply the principles/concepts of patient care. Students begin treatment of a "family" of patients under faculty supervision.

DENT 6502 Grand Rounds I Credit: 1
Students prepare to develop and present oral reports typically given at professional meetings such as case presentations, table clinics, research reports or presentations of new techniques (such as in Table Clinic requirements or Senior Grand Rounds). This course will expand on the student's basic knowledge of critical review of scientific literature and information literacy. Cases and problems in dentistry and oral health will be the context for identification and application of current valid scientific literature. This course seeks to foster an attitude of critical analysis and commitment to lifelong learning.

DENT 6509C Comprehensive Patient Care I Credits: 1-10
Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist. This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skills through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6510C Comprehensive Patient Care II Credits: 1-10
Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist. This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skills through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6514 Pathology III Lecture Credit: 1
Continued study of pathological conditions of the oral region with emphasis on clinical signs and symptoms.

DENT 6515 Periodontics II Credit: 1
The overall goal of this course is to help the pre-doctoral students to recognize periodontal disease and treatment plan the needed periodontal therapy. Specific goals are to enhance the student's knowledge of the surgical aspects of periodontal therapy, and the relationship of periodontal disease and its treatment to the overall dental treatment plan.
Clinical application of those principles taught in preceding terms.

DENT 6520 Transitions: Introduction to the Profession & Practice of Dentistry VI Credit: 1
This course is the sixth course in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course continues the strategic planning framework and focuses on practice building strategies.

DENT 6521 Oral Surgery III Credit: 1
This course is a continuation of the principles and techniques in Oral Surgery Pain Management II, but now relates to more advanced forms of oral surgical patient care. The areas to be covered are the diagnosis, treatment planning and management of impacted teeth, surgical complications, pre-prosthetic surgery, maxillary sinus in disease/dentoalveolar surgery, odontogenic infections, odontogenic cysts and odontogenic tumors afflicting the maxillofacial structures.

DENT 6521C Periodontics Clinical I Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6522 Oral Surgery IV Credit: 1
This course is a continuation of DENT 6521 Oral Surgery III. This course is structured to help the student acquire a basic understanding of the advanced aspects of the specialty of Oral and Maxillofacial Surgery. This includes the process of diagnosis, surgical and adjunctive management of diseases, deformities and malformations of the oral cavity, jaws and associate structures. Moreover, this course also covered principles and techniques of sedation used in oral and maxillofacial surgery.

DENT 6524 Principles of Oral Medicine and Diagnosis Credit: 1
This course expands upon the student doctor's knowledge of oral medicine, diagnosis, and pathology, and its interrelationship at times with systemic disease. Dental management, treatment and the appropriate use of consultations and referrals are emphasized.

DENT 6526 Orthodontics I Credit: 1
Orthodontics I is a course designed to introduce the student to the field of orthodontics. The laboratory enables the student to master the materials of orthodontics in order to complete diagnostic records, to construct fixed and removable appliances, and to be familiar with tooth movement mechanics. This course will prepare the student for clinical treatment of patients needing limited tooth movement.

DENT 6526L Orthodontics I Laboratory Credits: 2
This is a course designed to introduce the student to the field of orthodontics. The laboratory enables the student to master the materials of orthodontics in order to complete diagnostic records, to construct fixed and removable appliances, and to be familiar with tooth movement mechanics. This course will prepare the student for clinical treatment of patients needing limited tooth movement.

DENT 6527 Pharmacology and Therapeutics I Credits: 2
An introduction into the mechanisms of action, pharmacodynamics and relevant pharmacokinetics for drugs prescribed and used by patients seen by the dentist. The course is administered through the Blackboard Course Management System and will involve live and/or recorded lectures directed at "mastery learning" of introductory pharmacology where students receive objectives, attend class, and complete reading assignments expected to assist in achieving a high level of mastery.

DENT 6531C Oral Diagnosis Clinical I Credits: 1-2
Clinical application of diagnostic principles. Students will complete a diagnostic competency examination on a selected patient.

DENT 6534 Advanced Prosthodontics Credit: 1
This course reviews advanced principals in Fixed and Removable Prosthodontics. Using evidenced based concepts, information will be presented to aid the student clinician make well informed clinical choices which will help prepare them for the use of prosthodontic techniques in the practice of general dentistry. A variety of materials, devices, and concepts will be presented. Making intelligent choices in the selection and use of these restorative materials and concepts will be a focus.

DENT 6537 Oral Oncology Credits: 0.5
A lecture course on oral oncology will deal with the biologic aspects of cancer; the detection of oral cancer and the different modalities of treatment of cancer; the dental aspects both from surgical reconstruction and prosthetic reconstruction following cancer surgery; and management of the patient prior to, during, and following radiation therapy to the head and neck and during chemotherapy for systemic cancer.

DENT 6538 Orthodontics II Credit: 1
This course will present a variety of topics related to orthodontics, such as: normal development, abnormal occlusal deviations during the developing permanent dentition, diagnosis and treatment planning of orthodontic problems, biomechanical principles in orthodontics, adolescent vs. adult orthodontics, periodontal health during orthodontic treatment, complications associated with orthodontic treatment and controversial aspect of orthodontics. You should also be able to recognize which kind of cases exceed the scope of limited treatment and may require intervention by a specialist.

DENT 6542C Operative Dentistry Clinical I Credits: 1-2
Clinical application of those principles taught in preceding terms.
DENT 6551CR Oral Surgery Clinical Credits: 2
This is a course for application of principles taught in didactic courses (DENT 6412, DENT 6439, DENT 6440, DENT 6521, DENT 6522, and DENT 6610) and the Oral Surgery Rotations. Oral Surgery Clinical is designed to prepare the dental student with the necessary didactic and clinical skills to properly evaluate patients and provide Oral Surgery care in a safe effective and caring manner and to evaluate competency in two areas: managing medical emergencies and oral surgical skills expected of a general dentist.

DENT 6556 Radiographic Interpretation Credit: 1
This is a comprehensive multidisciplinary course in radiologic interpretation of normal anatomy, anomalies, dental caries, periodontal disease, periapical pathology and infections of the maxilla and mandible.

DENT 6558C Treatment Planning I Credit: 1

DENT 6559 Diagnosis and Management of Orofacial Pain Credit: 1
Essential conceptual, clinical and technical information and skills necessary in the diagnosis and treatment of Orofacial Pain States. Diagnostic protocols and radiographic procedures and their integration as it relates to painful head and neck conditions are presented in depth. Differential diagnosis and special diagnostic techniques are also addressed. Behavioral factors associated with the development of chronic pain and complicating the management of pain states are identified and discussed.

DENT 6562C Removable Prosthodontics Clinical Credit: 1
This course reflects the clinical aspects of Removable Prosthodontics. The application of didactic learning and foundational skills is practiced and evaluated. By treating multiple and varied patients needing complete dentures and those needing removable partial dentures, the student should become competent to diagnose and treat the routine and uncomplicated edentulous and partially edentulous patient with removable prostheses.

DENT 6564 Pharmacology and Therapeutics II Credits: 2
This course will provide the background necessary for the dentist to become knowledgeable about the drugs their patients may be taking and their related medical conditions. Lecture topics include the diseases and medical conditions commonly seen in dental patients on an outpatient basis. The course presents the effects, mechanisms of action, dosage forms, and relevant pharmacokinetics for the drugs used in the management of these diseases. The course will cover the important side-effects of precautions of drugs that are pertinent to the dental patient for their safe management.

DENT 6566 Bridge Course Credits: 2
This course is designed as a lecture and clinical course to provide a transition into the clinical phase of the dental curriculum for the third year dental student.

DENT 6591C Professional Development I Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6592C Professional Development II Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6593C Professional Development III Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6595 Introduction To Implant Dentistry Credit: 1
To provide the undergraduate student with a solid background into the role of implant dentistry in their profession. Advances in technique and materials which are responsible for improved predictability will be presented. Emphasis will be on patient selection, treatment planning and basic restorative techniques. The student will be able to initiate uncomplicated dental implant procedures with this information and will be prepared to enter into more advanced continuing education and graduate programs in this subject.

DENT 6600 Review Of Clinical Dentistry Credits: 1-2
A summative review of the basic areas of clinical dentistry.

DENT 6601C Endodontics Clinical Credits: 1-2
Clinical application of principles taught in preceding terms.

DENT 6602 Grand Rounds II Credit: 1
This course is a continuation of Grand Rounds I and its aim is similar to Grand Rounds I: expand on the dental student's basic knowledge of critical review of scientific literature and information literacy. Students will present a Table Clinic at Midwest Dental Conference and prepare a proposal for their senior Grand Rounds presentation.

DENT 6603 Grand Rounds III Credit: 1
The fourth year Grand Round course is an independent study courses designed to develop the evidence-based research skills required to keep abreast of current concepts in dentistry; develop case documentation skills necessary for continued professional development, and develop professional public speaking skills.

DENT 6604 Grand Rounds IV Credit: 1
The fourth year Grand Round course is an independent study courses designed to develop the evidence-based research skills required to keep abreast of current concepts in dentistry; develop case documentation skills necessary for continued professional development, and develop professional public speaking skills.

DENT 6605 Review Of Clinical Dentistry II Credits: 0.5
A review of foundation knowledge for clinical dentistry.
DENT 6606C Pediatric Dentistry Clinical I Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6607C Pediatric Dentistry Clinical II Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6608C Pediatric Dentistry Clinical III Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6609C Comprehensive Patient Care III Credits: 1-10
Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist. This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skills through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6610C Comprehensive Patient Care IV Credits: 1-10
Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist. This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skill through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6611C Fixed Prosthodontics Clinical I Credits: 1-2
Clinical application of principles taught in preceding terms.

DENT 6613 Periodontal Treatment Planning Credit: 1

DENT 6614 Dentistry For The Special Patient Credits: 1-2
The purpose of this course is to acquaint the student with the dental treatment of three populations of patients who you may encounter in your dental career (and often have trouble finding adequate care). They include patients who are developmentally disabled, the elderly, and the medically-compromised. The course will present management techniques for in-office treatment and appropriate referral of those patients best treated in another setting. This course builds upon the skills and knowledge gained in previous courses in many disciplines, to provide an interdisciplinary experience with special patient populations. A required rotation at the Regional Center for the Developmentally Disabled gives practical experience to topics covered in lecture.

DENT 6614C Comprehensive Patient Care V Credits: 1-10
Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist. This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skill through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6615 Transitions: Introduction to the Profession & Practice of Dentistry VII Credit: 1
This is the seventh course in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course continues with the strategic planning framework and focuses on the development of a dental practice business plan.

DENT 6616 Transitions: Introduction to the Profession and Practice of Dentistry VIII Credits: 0.5
This course is a continuation of a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course allows fourth year dental students to apply concepts and principles presented in the previous practice management courses in the Innovation Center and in small group seminars. A series of small group seminars will allow for in-depth discussion of professional issues.

DENT 6617 Pediatric Dentistry Seminar Credits: 0.5
This course is designed to allow fourth year students to build on the concepts presented in DENT 6431. Using a seminar format, students will review pediatric dentistry concepts with emphasis on clinical application.

DENT 6621C Periodontics Clinical II Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6625 Oral Surgery Clinical II Credit: 1
Oral Surgery II is a continuation of Oral Surgery I and is designed to certify students’ competency in oral surgery, including managing patient pain and anxiety, i.e. nitrous oxide-oxygen sedation.

DENT 6626 Clinical Treatment Planning Credit: 1
This course builds on the didactic courses and clinical experiences in treatment planning. Each student will demonstrate competency in comprehensive treatment planning to earn credit in the course.
DENT 6633 Introduction To Dental Public Health Credit: 1
Discussion of contemporary issues in community health and community oral health with emphasis on preparing students for their roles as professional members of their communities.

DENT 6634 Community-Based Dental Education (CODE) I Credit: 1
The purpose of this course is to expose third and fourth year dental students to alternative methods of dental care delivery to populations at high risk for dental disease. Specifically the course places junior and senior students in an existing network of community health centers and rural outreach sites.

DENT 6635 Community-Based Dental Education (CODE) II Credit: 1
Prerequisites: DENT 6634, Completion of Third Year.

DENT 6636C Oral Radiology Clinical Credit: 1
Clinical application of those principles taught in preceding terms with emphasis on use of a variety of film holding devices. Radiographic quality assurance and darkroom maintenance will be reviewed during this course.

DENT 6642C Operative Dentistry Clinical II Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6650 Applied Ethics Credits: 0.5
Four or five case studies will be used during seminars. Basic ethical principles from DENT 6306 will be applied to the case studies. Two of the cases will involve ethical issues, and one of the cases will add community dentistry issues. Other cases will be used as generated or suggested by each seminar group.

DENT 6656C Orthodontic Clinical I Credit: 1
The purpose of this course is to allow each student to develop the skills, knowledge and values to diagnose potential or actual malocclusions and manage patient who need orthodontic intervention.

DENT 6690 Independent Study in Dentistry Credits: 1-6
This course provides students the opportunity to undertake independent study projects in specific areas of dentistry. Course may be repeated.

DENT 6691C Professional Development IV Credits: 1-3
Clinical application of those principles taught in preceding terms.

DENT 6692C Professional Development V Credits: 1-2
Clinical application of those principles taught in preceding terms.

Dental Hygiene Courses

DENT-HYG 3000 Dental Morphology And Occlusion Credits: 2
This course is designed to provide the dental hygiene student with a sound knowledge base in dental morphology and occlusion through discussion and laboratory experiences. Students will learn to identify anatomical structures of each tooth and be able to communicate these findings effectively with colleagues and patients in both verbal and written forms. Throughout the course, the clinical application and relevance of dental morphology in the practice of dental hygiene will be emphasized. Special consideration will be given to root morphology as it relates to periodontal instrumentation. Activities will include: identification of extracted teeth, terminology exercises, dental charting experiences and identifying classifications of occlusion.

DENT-HYG 3020 Dental Radiology Credits: 2
Lecture and clinical practice of dental radiographic procedures. Topics included are radiation hygiene, taking and developing radiographs, processing and mounting films, and radiographic interpretation. Clinical experience is required throughout the remaining semesters.

DENT-HYG 3030 Introduction to Histopathology of Oral Tissues Credits: 2
A comparison of the microscopic anatomy of healthy and diseased oral tissues. The major goal of this course is to integrate basic sciences (embryology, descriptive histology, and cell biology of oral tissues) with clinical sciences. The gap between the basic and clinical sciences is not always easy to bridge; this course is designed to bridge the "gap." This course provides students with an introduction to oro-facial histology and embryology and pathology that may arise from the tissues of the head, neck, and oral cavity.
Prerequisites: Dental hygiene student.

DENT-HYG 3080 Introduction to the Preventive Practice of Dental Hygiene Credits: 4
This course will introduce theories and rationales for basic clinical dental hygiene care (infection control, oral examination and fundamentals of instrumentation) in diverse populations. Practical application of specific clinical skills will be introduced in the classroom and applied in the clinical setting.

DENT-HYG 3080L Preclinical Dental Hygiene Credits: 2
This course emphasizes the practical application of the fundamental concepts and principles of patient care in a diverse society discussed in DENT-HYG 3080. Emphasis is placed on patient assessment and techniques of instrumentation for examination and dental hygiene treatment. After the student has mastered basic skills, he/she will begin to provide direct dental hygiene services.
DENT-HYG 3200 General and Oral Pathology Credits: 2-3
An introduction to the principles of general pathology and organ system pathology including inflammation, immunity and diseases of immune origin, genetic diseases, neoplasia with emphasis on oral cancer, and diseases of selected organ systems including pulmonary, cardiovascular, hematopoietic, endocrine, skeletal, gastrointestinal, hepatic, pancreatic and other systems as time permits.

DENT-HYG 3210 Applied Nutrition and Biochemistry Credits: 2
This course introduces biochemistry and nutrition, encouraging identification of sources and application of specific nutrients for health. Contents familiarize students with roles of nutrition and places emphasis on the hygienist’s role as nutritional educator—utilizing skills of recognition, prevention and treatment of related disease(s) and support of good oral health. Topics build on previous knowledge of chemistry, biology and physiology in application to health, coupled with deficient/optimal nutrition. Students will utilize motivational interviewing pertaining to counseling to help patients assign values, prioritize, and meet agreed upon goals. The format will include face-to-face lectures, online supplements, short labs, and group assignments/presentations. 
Prerequisites: CHEM 211 and CHEM 211L; LS-PHYS 217.

DENT-HYG 3220 Dental Biomaterials Credits: 2
This course is designed to provide the dental hygiene student with a sound knowledge base in the science and manipulation of dental biomaterials. Through lectures and laboratory session, the student’s ability to make clinical judgments regarding the application of dental biomaterials and the ways in which materials react to the oral environment will be enhanced.

DENT-HYG 3260 Principles Of Periodontics Credits: 2
This course in Periodontics will cover the biological and clinical aspects of periodontal health and pathology. An introduction to the supporting structures of the teeth will provide the foundation of understanding pathogenesis, histopathology and subsequent therapeutic treatment of periodontal diseases. The dental hygienist’s role in recognition, prevention and treatment of periodontal diseases and maintenance of periodontal health is examined.

DENT-HYG 3280C Dental Hygiene Clinic I Credits: 3
Students will further develop clinical skills and techniques learned in DENT-HYG 3080L and previous courses by providing services to patients.

DENT-HYG 3285 Seminar In Dental Hygiene I Credits: 2-3
This course expands on theory and background presented in DENT-HYG 3080. Topics include expanding dental hygiene skills required for the care of patients and continued development of problem solving abilities and critical thinking skills as they relate to the provision of dental hygiene care. Provide students with a more insightful view of the role of the dental hygienist in the delivery of comprehensive patient care.

DENT-HYG 3300 Radiographic Interpretation Credits: 0.5
The purpose of the course is to introduce interpretation of radiographic anomalies and pathology just prior to the clinical experience. Since there was little time for an emphasis on radiographic interpretation during your second year radiology course, this lecture and participation course supplement clinic instruction in diagnosis of the patient’s oral needs and formulation of a treatment plan. Upon completion of this course, the student should be able to recognize simple pathology and radiographic anomalies.

DENT-HYG 3320 Oral Health Behavior Change Credits: 3
The purpose of this hybrid course is to prepare the junior dental hygiene student to effectively assess and individualize preventive oral health care through the use of brief motivational interviewing. The course will include evidenced based information in dental caries and caries risk assessment, caries preventive measures, introduction to periodontal disease, dental stains, and management of xerostomia, halitosis, and dental sensitivity, oral healthcare products and how to care for an oral appliance. The student will subsequently apply course concepts to facilitate patient behavior change in the clinical setting. Recommended preparation: a course in General Psychology.

DENT-HYG 3340 Principles Of Public Health Credits: 2
This course introduces the student to principles of public health, the field of epidemiology, health care delivery systems, public health terminology and teaching methodologies to use in culturally diverse community settings. Students will have the opportunity to assess a target population, plan, implement and evaluate appropriate programs. Students will also apply theories and skills of communication and education while preparing and presenting oral health education programs for various population groups.

DENT-HYG 4001 Clinical Oral Radiology Credit: 1
Clinical application of radiology principles taught in preceding terms. To provide clinical skills to safely make and interpret radiographic images for the provision of oral health care.

DENT-HYG 4020 Local Anesthesia And Pain Control Credits: 3
This course is designed to prepare dental hygiene students for the safe, effective administration of local anesthesia and nitrous oxide sedation. Included are content areas in anatomy, physiology, pharmacology, and emergency management as they relate to the administration of local anesthetics, nitrous oxide, and pain control. Laboratory sessions are structured to develop actual experiences in administration of local anesthetics and nitrous oxide. Various mechanisms for pain control are also covered. Methods of presentation include lecture, large group discussion, laboratory and clinical participation.

DENT-HYG 4040 Foundations of Teaching Credits: 2
This course provides an introduction to the evidence-based best practices in course design for students who are preparing for a career in teaching and for those who simply wish to learn more about classroom instruction. Students will explore outcomes centered course design and practical and effective instructional strategies. Content application activities include syllabus development, writing objectives, constructing lesson plans, preparing presentations and developing course management sites.
DENT-HYG 4050 Periodontics II Credit: 1
This course in Periodontics will provide an introduction to Phase II and III therapy. Periodontal decision making will be emphasized. The dental hygienists’ role in recognition, prevention and treatment of periodontal diseases and maintenance of periodontal health is further examined.
Prerequisites: DENT-HYG 3260.

DENT-HYG 4060C Dental Hygiene Clinic II Credits: 2
The student will continue to develop competency in basic dental hygiene skills. Principles of periodontal techniques, such as non-surgical periodontal therapy, supportive treatment procedures and comprehensive patient care in a diverse society will be emphasized. The student will be asked to demonstrate professional management skills and productivity.

DENT-HYG 4065 Seminar in Dental Hygiene II Credit: 1
This seminar course is offered in conjunction with DENT-HYG 4060C, and expands upon theory and background presented in other dental hygiene courses within the curriculum which will involve further development of their critical thinking/problem solving skills regarding patient care. Students will be provided with further instruction regarding advanced instrumentation, cultural diversity, motivational interviewing and other technological advancements utilized in dental hygiene care.
Co-requisites: DENT-HYG 4060C.

DENT-HYG 4080 Introduction to Research and Evidence Based Decision Making Credits: 2
This is a lecture/discussion course with assigned exercises in the research process and evaluating scientific studies. Students will apply basic principles of research design and methodology to the critical analysis of contemporary oral health related literature focusing on the review and evaluation of literature as it relates to the practice and profession of dentistry and dental hygiene with the intent of utilizing an evidence-based approach to care.

DENT-HYG 4100 Pharmacology Credits: 3
An overview and introduction to the major drug groups and common drugs taken by dental outpatients. Course includes the basic principles and general theories of drug action, basic pharmacokinetics, their mechanisms of action and therapeutic uses and the relative dental significance of each.

DENT-HYG 4110 Introduction to Research Methodologies Credits: 2
This is a lecture/discussion course with assigned exercises in the research process and evaluating scientific studies. Students will learn the basic principles involved in research design and methodology and will apply those principles to the critical analysis of contemporary health related literature. Focus on the review and evaluation of literature as it relates to the practice and profession of dentistry with the intent of utilizing an evidence-based approach to care will be stressed.

DENT-HYG 4115 Practicing in the Dental Hygiene Public Health Safety Net Credits: 3
The course is designed to increase the knowledge base of the practicing dental hygienist in the area of public health dentistry, including health promotion, disease prevention, current legislation, evidence based treatment, school based portable dentistry, coalitions, treating the geriatric and disabled populations, as well as how to write and secure.

DENT-HYG 4120C Dental Hygiene Clinic III Credits: 4
The student will continue to develop competency in intermediate dental hygiene skills. Principles of periodontal techniques, such as root planning, pain control and supportive techniques will be stressed. Comprehensive treatment planning and implementation of comprehensive care to a diverse patient population will be the focus of this course. Continued development of professionalism, management and critical thinking skills will be emphasized.

DENT-HYG 4125 ECP III Training Course Credits: 2
The ECP III Training Course is designed to prepare a registered dental hygienist to apply for the Kansas Extended Care Permit III. Hygienists with the ECP III certificate can practice under the sponsorship of a dentist in a variety of public health settings including schools and long term care facilities in Kansas.

DENT-HYG 4130 Introduction to Instructional Technologies and Online Learning Credit: 1
The web-based multimedia course will examine the mediated communication process using Internet tools and is designed to help the incoming student become prepared to succeed in their degree program using online technologies. Students will exam the changes and challenges associated with mediated synchronous and asynchronous technologies. The course will be delivered in four different modules.

DENT-HYG 4150 Portfolio Capstone Credit: 1
The capstone course serves as the culminating experience for students in the BSDH Degree Completion Program. During the Capstone course, students will create a coherent and cohesive body of work reflective of attainment of the competencies for the BSDHDC program—in the form of an e-Portfolio.

DENT-HYG 4210 Practice Management Credits: 3
Current relevant issues impacting dental hygiene practice are discussed. Dental practice economics, communicating and management in a diverse society are included. Also included in this course is the study of jurisprudence as it relates to the practice of dental hygiene.

DENT-HYG 4240 Ethics In Professional Practice Credit: 1
Study of ethics and ethical issue related to the practice of dental hygiene within a diverse society. Includes application of ethical principles to real-life situations.
DENT-HYG 4260 Senior Seminar Credits: 2
This course serves as a means of synthesizing information from all courses in the dental hygiene curriculum and applying content to patient cases and practice management issues. Case-based learning (CBL) will be utilized to review significant content areas as well as to introduce subjects not previously encountered during previous clinical experiences. Case based/problems based learning (PBL) with faculty facilitation will assist students in managing patient cases. This course is also designed to assist in preparing senior dental hygiene students for the written and clinical examinations required for licensure.

DENT-HYG 4260C Dental Hygiene Clinic IV Credits: 4
The student will have the opportunity to reach competency in all clinical skills. Emphasis will be placed on decision-making, problem-solving, critical thinking, appointment and time management. The course will focus on comprehensive dental hygiene care to a diverse population.

DENT-HYG 4320 Special Patient Care Practicum Credits: 2-4
Through outside agency affiliation, students will have the opportunity of applying the course content from Principles of Public Health, Dental Health Education and DHE-Practicum. Sites for participation include hospitals, nursing homes, and residential and day activity centers for developmentally disabled.

DENT-HYG 4340 Community Dentistry Practicum Credits: 2-4
The community dentistry practicum provides the student with an opportunity for personal exploration of the many settings of community dentistry. These experiences may lead the students into clinical activities or design and implementation of dental health educational programs. The student will have the opportunity to work with various community health professionals in the Kansas City area. The student will need reliable transportation and should expect some experiences to require travel. Possibilities for practicum experiences are broad and will be defined after an initial assessment of the student’s interest and goals. An individual learning contract will be written following the assessment. The student will be required to meet as a group periodically throughout the semester.

DENT-HYG 4350 Periodontal Therapy Practicum Credits: 1-4
This course is designed for the dental hygiene student who desires increased experience with periodontal skills. The course involves practical experience in the graduate periodontics clinic working with a periodontology resident. Two clinic sessions per week; one seminar scheduled weekly.

DENT-HYG 4360 Practice Management Practicum Credits: 3
Current relevant issues impacting dental hygiene practice are discussed. Dental practices, economics, communication and management are included. Practical application of course would include the development of a dental office operating manual.

DENT-HYG 4380 Research Practicum Credits: 2-4
This course provides an opportunity to apply the content in the previous course Introduction to Research Design. The protocol identified may be a basic science, clinical or community dental hygiene problem. The field experience may deal with a basic or applied, descriptive or explanatory research question.

DENT-HYG 4500 Seminar on Issues in Higher Education for Health Professionals Credits: 2-4
This course is designed to introduce the student to matters encountered in higher education. Specific to dental hygiene education. Weekly readings, assignments, and sessions will familiarize the student in topics such as: writing resumes and cvs, case-based learning, accreditation, promotion and tenure, and assessment.

DENT-HYG 4600 Evidence Based Decision Making in the Clinical Practice of Dental Hygiene Credits: 2-4
This course is designed for the graduate and degree completion dental hygiene student and expand on the student’s basic knowledge of the dental hygiene process of care. Utilization of evidence based decision making skills will be explored in an effort to incorporate current scientific literature, personal clinical experience and patient preferences as it relates to the delivery of comprehensive patient care. Skills taught in this course will enhance background knowledge related to the dental hygiene process of care and help to foster an attitude of critical analysis and lifelong learning.

DENT-HYG 4620 Introduction to Educational Methodology Credits: 3
This course is designed to introduce the student to basic educational methodologies and to provide participants with a better understanding of the teaching/learning process. The course includes units on instructor/student relationships, educational approaches, educational ethics and professionalism, the scholarship of teaching and learning and curriculum theory.

DENT-HYG 4625 Dental Hygiene Administration Credits: 2
This course is designed for the post-certificate dental hygiene student. Major topic areas include accreditation of dental hygiene programs, the impact of National and State Board examinations on curriculum planning, selective admissions policies and procedures, faculty evaluation, promotion and tenure and students’ rights.

DENT-HYG 4630 Practicum in Dental Hygiene Administration Credits: 2-4
Under the supervision of the Director of Dental Hygiene, the student will gain actual experiences in the daily administration of a dental hygiene program. The student may contract for responsibilities such as admissions, budget preparations, course scheduling, report writing and student academic counseling.

DENT-HYG 4635 Practicum In Clinical Supervision Credits: 2-4
Under the supervision and permission of the Dental Hygiene Clinical Supervisor, the student will gain actual experience in the duties involved in coordinating the clinical education of a dental hygiene student. The student may contract for responsibilities such as, coordinating mock board examinations, maintaining student clinical records, developing faculty and student clinic schedules and report writing.
DENT-HYG 4640 Student Teaching and Conference I Credits: 2-4
Under the direction of a supervising professor, the student may select teaching experience in the classroom areas of their choice. The student develops behavioral course objectives, comprehensive lesson plans, test and examination items, classroom presentations, and prepares student evaluations in the selected classroom teaching areas. The student may select teaching assignments in one of the developed externship student teaching programs. Conferences will be held in conjunction with the course.
Prerequisites: DENT-HYG 4040, DENT-HYG 4620.

DENT-HYG 4650 Student Teaching and Conference II Credits: 2-4
The student will continue to develop teaching skills in laboratory and/or classroom areas as selected by the student under the direction of a supervising professor.
Prerequisites: DENT-HYG 4640.

DENT-HYG 4660 Independent Study in Dental Hygiene Credits: 1-4
This course is designed for the dental hygiene student who desires independent study of a particular problem or area of interest in dental hygiene education.

DENT-HYG 4680 Dental Hygiene Clinical Instruction I Credits: 2-4
Continued development of competency as a clinical instructor under the supervision of the dental hygiene faculty. Requires a half-day in clinic student instructor.
Prerequisites: DENT-HYG 4640.

DENT-HYG 4685 Dental Hygiene Clinical Instruction II Credits: 1-4
A continuation of DENT-HYG 4680. Under the supervision of the dental hygiene faculty, students may continue to develop skills as a dental hygiene clinical instructor.
Prerequisites: DENT-HYG 4680.

DENT-HYG 5500 Introduction to Educational Methodology Credits: 3
This course is designed to introduce the student to basic educational methodologies and to provide participants with a better understanding of the teaching/learning process. The course includes units on instructor/student relationships, educational approaches, educational ethics and professionalism, the scholarship of teaching and learning and curriculum theory.

DENT-HYG 5502 Foundations of Teaching Credits: 2
This course provides an introduction to the evidence-based best practices in course design for students who are preparing for a career in teaching and for those who simply wish to learn more about classroom instruction. Students will explore outcomes centered course design. Content application activities include syllabus development, writing objectives, constructing lesson plans, preparing presentations, developing course management sites, and test development.
Prerequisites: Must be a student enrolled in the MSDHE program.

DENT-HYG 5510 Student Teaching and Conference I Credits: 2-4
Student teaching experience in classroom areas as selected by the student under the direction of a supervising professor. The student develops behavioral course objectives, test and examination items, classroom presentations, and prepares student evaluations in the selected classroom teaching areas. The student may select teaching assignments in one of the developed externship student teaching programs. Conferences will be held in conjunction with the course.
Prerequisites: DENT-HYG 4040, DENT-HYG 5500.

DENT-HYG 5512 Student Teaching and Conference II Credits: 2-4
This course is designed to provide the graduate dental hygiene student with additional experience in classroom teaching. Student teaching experiences will be selected by the student under the direction of and in conference with a supervising professor.

DENT-HYG 5516 Special Issues in Higher Education for Health Professional Credits: 3
This course is designed to introduce the student to matters encountered in higher education - specific to dental hygiene education. Weekly readings, assignments, and sessions will familiarize the student in topics such as: writing resumes and cvs, motivational interviewing, accreditation, promotion and tenure, and social media.

DENT-HYG 5530 Clinical Instruction and Conference I Credits: 2-4
Students will actively participate in clinical instruction under the supervision of a dental hygiene faculty member. Topics relative to clinical teaching will be discussed in weekly seminars. Students will be encouraged to apply knowledge gained in DENT-HYG 4620 and DENT-HYG 5500 during clinical instructional experiences. Additionally the student must participate in at least 7 day of clinic per week to equal another credit hour of course work.

DENT-HYG 5532 Clinical Instruction and Conference II Credits: 2-4
This course is a continuation of DENT-HYG 5530. Under the supervision of the dental hygiene faculty, the student will continue to develop skills as a dental hygiene clinical instructor.
Prerequisites: DENT-HYG 5530.
DENT-HYG 5553 Evidence Based Decision Making in the Clinical Practice of Dental Hygiene Credits: 2-4
This course is designed for the graduate and degree completion dental hygiene student and will expand on the student’s basic knowledge of the dental hygiene process of care. Utilization of evidence based decision making skills will be explored in an effort to incorporate current scientific literature, personal clinical experience and patient preferences as it relates to the delivery of comprehensive patient care. Skills taught in this course will enhance background knowledge related to the dental hygiene process of care and help to foster an attitude of critical analysis and life-long learning.

DENT-HYG 5560 Practicum in Clinical Supervision and Management Credits: 2-4
Practical experience in functioning as a Clinic Supervisor. Clinical managerial projects will be assigned according to students’ interests and goals by agreement between student and instructor.

DENT-HYG 5565 Advanced Special Patient Care Practicum I Credits: 1-4
This course is designed to familiarize the student with general principles of cancer therapy and the role of the dental team in the multidisciplinary care of patients undergoing oncology treatments. Special emphasis will be placed on the treatment of the patient with head and neck cancer, and preventive and palliative dental interventions for control of the orl complications associated with all cancer therapies. Cancer prevention issues and the psychosocial and economic impact of cancer diagnosis will also be discussed.

DENT-HYG 5566 Advanced Special Patient Care Practicum II Credits: 1-4
This course will provide the graduate dental hygiene student with the opportunity to explore the relationship of an oncology dental program to medical health care facilities.

DENT-HYG 5570 Administrative Practicum Credits: 1-4
Practical experience in administration. The student selects areas of responsibility based on their goals and interests in administration. Possible areas of involvement are: recruitment, admissions, curriculum and course development, course scheduling, grant and report writing and student advising.

DENT-HYG 5575 Practicing in the Dental Hygiene Public Safety Net Credits: 3
This course is designed to increase the knowledge base of practicing dental hygienists in the area of public health dentistry, including health promotion, disease prevention, current legislation, evidence based treatment, school based portable dentistry, coalitions, treating the geriatric and disabled populations, as well as how to write and secure grant monies. In addition, the course will expose dental hygienists to a variety of public health settings in which they can practice with an Extended Care Permit (in KS) or the Dental Hygiene Designation (in MO). Information on how to apply for the permits will also be shared.

DENT-HYG 5576 Extended Care Permit (ECP) III Training Course Credits: 2
The Extended Care Permit (ECP) III Training Course is designed to prepare a registered dental hygienist to apply for the Kansas Extended Care Permit III. Hygienists with the ECP III certificate can practice under the sponsorship of a dentist in a variety of public health settings including schools and long term care facilities in Kansas.

Prerequisites: Must be a student enrolled in the MSDHE program.

DENT-HYG 5585 Portfolio Capstone Course Credit: 1
This capstone course serves as the culminating experience for students in the MS in Dental Hygiene Education (MS in DHE). During the Capstone course, students will create a coherent and cohesive body of work reflective of attainment of the competencies for their respective programs - in the form of an e-Portfolio. This course should be taken in the semester of anticipated completion/graduation of the MS In DHE program.

DENT-HYG 5590 Independent Study Credits: 1-4
Independent study of a particular topic or area of interest to the student in dental hygiene/dentistry and/or higher education.

DENT-HYG 5595 Writing in Science Credits: 1-2
This seminar course is designed to provide advanced education students in the health professions the skills necessary to write and communicate in science. Course activities and topics include: critical analysis of the literature, literature summary tables, structure and organization of documents, style and usage, drafting, revising and finishing. Participants will practice the craft of scientific writing not only as the writer but also as the reader providing correction and reorganization where appropriate. While this course examines many writing tasks, exercise culminate with the development of a research protocol or scientific article.

DENT-HYG 5599 Research And Thesis Credits: 1-6
This course is designed to support the research process from protocol development through data collection and report of results. Research committee chairperson typically serves as the course director.

**Endodontics Courses**

ENDO 5701 Endodontology 1 Credits: 1-6
This course is designed to introduce the first year endodontic postgraduate student to the field of advanced endodontics. It will provide introductory information and guidance which will serve as a basis for follow on course work in ENDO 5702 through ENDO 5706.

ENDO 5702 Endodontology 2 Credits: 1-6
This course is designed to continue the transition of the general dentist into a first year endodontic postgraduate student in the field of advanced endodontics. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.
ENDO 5703 Endodontology 3 Credits: 1-6
This course is designed to complete the transition of the general dentist into a first year endodontic postgraduate student in the field of advanced endodontics. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.
Prerequisites: ENDO 5701, ENDO 5702.

ENDO 5704 Endodontology 4 Credits: 1-6
This course is designed to transition the first year into a second year postgraduate student in the field of advanced endodontics. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.
Prerequisites: ENDO 5701, ENDO 5702, ENDO 5703.

ENDO 5705 Endodontology 5 Credits: 1-6
This course is designed to continue the transition of the general dentist into a more proficient second year postgraduate student in the field of advanced endodontics. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.
Prerequisites: ENDO 5701, ENDO 5702, ENDO 5703, ENDO 5704.

ENDO 5706 Endodontology 6 Credits: 1-6
This course is designed to complete the transition of the general dentist into a fully independently practicing endodontist. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.
Prerequisites: ENDO 5701, ENDO 5702, ENDO 5703, ENDO 5704, ENDO 5705.

ENDO 5721 Endodontology 7 Credits: 1-6
This course is designed to complete the transition of the general dentist into a fully independently practicing endodontist. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.
Prerequisites: ENDO 5706.

ENDO 5722 Endodontology 8 Credits: 1-6
This course is designed to complete the transition of the general dentist into a fully independently practicing endodontist. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.
Prerequisites: ENDO 5721.

ENDO 5723 Endodontology 9 Credits: 1-6
This course is designed to complete the transition of the general dentist into a fully independently practicing endodontist. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.
Prerequisites: ENDO 5722.

General Practice Courses
G-PRAC 5710 Principles Of Pedodontics For General Practice Credits: 2
A lecture course presenting the basic concepts of diagnosis and treatment of the child in a general dental practice.

G-PRAC 5716 Special Problems In General Practice Dentistry I Credits: 1-6
Courses designed to provide the student with opportunities to work with consultants and specialists on the faculty of the dental school on cases which require the attention of a specialist.

G-PRAC 5717 Special Problems In General Practice Dentistry II Credits: 1-6
Prerequisites: G-PRAC 5716.

G-PRAC 5718 Special Problems In General Practice Dentistry III Credits: 1-6
Prerequisites: G-PRAC 5717.

G-PRAC 5721 General Practice Clinic I Credits: 1-10
G-PRAC 5722 General Practice Clinic II Credits: 1-10
G-PRAC 5723 General Practice Clinic III Credits: 1-10

G-PRAC 5728 Dental Implantology Credit: 1
The course is designed to include the following topics: history of implantology, implant materials and designs, fibroosseous and osseo-integration theories, bionert and bioactive retention, indication and case selection, technique methodology, anatomical considerations and reasons for failure, prosthetic considerations using several systems and necessary radiographic aids, surgical stent and laboratory with simulated insertion of an implant.

G-PRAC 5740 Interdisciplinary Seminar I Credit: 1
The integration of common areas of concern in the clinical disciplines of Oral and Maxillofacial Surgery, Orthodontics, Pediatric Dentistry, Periodontics and Prosthodontics as they relate to patient cases. Cases are presented that present problems in at least two clinical disciplines in the areas of Diagnosis, Treatment Programming or Therapy. The current literature is reviewed and the case discussed.

G-PRAC 5741 Interdisciplinary Seminar II Credits: 1-6
Prerequisites: G-PRAC 5740.
G-PRAC 5742 Interdisciplinary Seminar III Credit: 1  
**Prerequisites:** G-PRAC 5741.

G-PRAC 5743 Interdisciplinary Seminar IV Credit: 1  
**Prerequisites:** G-PRAC 5742.

G-PRAC 5899 Required Graduate Enrollment Credit: 1

### Oral Biology Courses

OR-BIO 5699 Dissertation Research Credits: 1-12  
Ph.D. dissertation research.

OR-BIO 5702 Biomechanics of Mineralized Tissue Credits: 3  
The physical principles underlying mineralized tissue biomechanics will be presented at multiple hierarchies. Details of bone, tooth and joint (with a special emphasis on the TMJ) anatomy and function will be outlined as related to mechanical loading.

OR-BIO 5899 Required Graduate Enrollment Credit: 1

### Oral Surgery Courses

OR-SURG 5700 Principles Of Oral Surgery I Credit: 1  
A conference on diagnosis, treatment planning, surgical technique.

OR-SURG 5701 Principles of Oral Surgery II Credit: 1  
**Prerequisites:** OR-SURG 5700.

OR-SURG 5702 Principles of Oral Surgery III Credit: 1  
**Prerequisites:** OR-SURG 5701.

OR-SURG 5703 Principles of Oral Surgery IV Credit: 1  
**Prerequisites:** OR-SURG 5702.

OR-SURG 5704 Clinical Oral Surgery I Credit: 1  
The clinical application of the principles of diagnosis, treatment planning, and surgical techniques.

OR-SURG 5705 Clinical Oral Surgery II Credit: 1  
**Prerequisites:** OR-SURG 5704.

OR-SURG 5706 Clinical Oral Surgery III Credit: 1  
**Prerequisites:** OR-SURG 5705.

OR-SURG 5707 Physical Diagnosis For The Oral & Maxillofacial Surgeon I Credit: 1  
Basic physical diagnosis and review of systems as it relates to the practice of Oral and Maxillofacial Surgery.

OR-SURG 5708 Physical Diagnosis For The Oral & Maxillofacial Surgeon II Credit: 1  
Advanced physical diagnosis and review of systems as it relates to the practice of Oral and Maxillofacial Surgery.

OR-SURG 5709 Physical Diagnosis For The Oral & Maxillofacial Surgeon III Credit: 1  
Oral and Maxillofacial Surgery and the medically compromised patient.

OR-SURG 5710 Physical Diagnosis for the Oral & Maxillofacial Surgeon IV Credit: 1  
**Prerequisites:** OR-SURG 5709.

OR-SURG 5711 Physical Diagnosis for the Oral & Maxillofacial Surgeon V Credit: 1  
**Prerequisites:** OR-SURG 5710.

OR-SURG 5712 Physical Diagnosis for the Oral & Maxillofacial Surgeon VI Credit: 1  
**Prerequisites:** OR-SURG 5711.

OR-SURG 5713 Advanced Physical Diagnosis For Oral & Maxillofacial Surgeon I Credit: 1  
Advanced physical diagnosis and review of systems as it relates to the practice of Oral and Maxillofacial Surgery.

OR-SURG 5714 Advanced Physical Diagnosis for Oral & Maxillofacial Surgeon II Credit: 1  
**Prerequisites:** OR-SURG 5713.

OR-SURG 5716 Special Problems In Oral And Maxillofacial Surgery I Credit: 1

OR-SURG 5717 Special Problems In Oral And Maxillofacial Surgery II Credit: 1

OR-SURG 5719 Special Problems - Oral & Maxillofacial Surgery IV Credit: 1  
Special Problems - Oral Maxillofacial Surgery IV
OR-SURG 5720 Oral Surgery Hospital Residency I Credit: 1
Two calendar years of hospital residency in an affiliated teaching hospital. The residency provides additional training in major oral surgery and didactic education in oral surgery and science areas, including anesthesiology, diagnosis, pathology, and radiology.

OR-SURG 5721 Oral Surgery Hospital Residency II Credit: 1
Prerequisites: OR-SURG 5720.

OR-SURG 5722 Oral Surgery Hospital Residency III Credit: 1
Prerequisites: OR-SURG 5721.

OR-SURG 5723 Oral Surgery Hospital Residency IV Credit: 1
Prerequisites: OR-SURG 5722.

OR-SURG 5724 Oral Surgery Hospital Residency V Credit: 1
Prerequisites: OR-SURG 5723.

OR-SURG 5725 Oral Surgery Hospital Residency VI Credit: 1
Prerequisites: OR-SURG 5724.

OR-SURG 5727 Major Oral Surgery I Credit: 1
A comprehensive study of major oral surgery. Lectures are correlated with surgical exercises which are performed in the anatomy laboratory.

OR-SURG 5728 Major Oral Surgery II Credit: 1
Prerequisites: OR-SURG 5727.

OR-SURG 5729 General Anesthesiology And Pharmacology I Credit: 1
The pharmacological principles of the various anesthetic agents and allied medications.

OR-SURG 5730 General Anesthesiology and Pharmacology II Credit: 1
Prerequisites: OR-SURG 5729.

OR-SURG 5731 Clinical General Anesthesiology And Pharmacology I Credit: 1
The clinical application of various anesthetic and pharmacological agents.

OR-SURG 5732 Clinical General Anesthesiology and Pharmacology II Credit: 1
Prerequisites: OR-SURG 5731.

OR-SURG 5733 Clinical General Anesthesiology and Pharmacology III Credit: 1
Prerequisites: OR-SURG 5732.

OR-SURG 5734 Clinical/Major General Anesthesiology And Pharmacology I Credit: 1
The clinical/major surgical application of various anesthetic and pharmacological agents.

OR-SURG 5735 Clinical/Major General Anesthesiology and Pharmacology II Credit: 1
Prerequisites: OR-SURG 5734.

OR-SURG 5736 Clinical/Major General Anesthesiology and Pharmacology III Credit: 1
Prerequisites: OR-SURG 5735.

OR-SURG 5737 Pediatric General Anesthesiology And Pharmacology I Credit: 1
The pharmacological principles of various anesthetic agents and allied medications in the pediatric patient.

OR-SURG 5740 Oral & Maxillofacial Surgery Independent Study Credits: 1-6
An advanced study and/or elective course in Oral and Maxillofacial Surgery related field(s) which enhances the compulsory curriculum.

OR-SURG 5752 Seminar In Oral Surgery I Credit: 1
A discussion of current literature and research relating to oral surgery.

OR-SURG 5753 Seminar in Oral Surgery II Credit: 1
Prerequisites: OR-SURG 5752.

OR-SURG 5754 Seminar In Oral Surgery III Credit: 1
OR-SURG 5755 Seminar in Oral Surgery IV Credit: 1
Prerequisites: OR-SURG 5754.

Orthodontics Courses
ORTHOD 5704 Orthodontics And Dentofacial Orthopedics I Credits: 1-6
Orthodontic theory, treatment techniques and treatment of patients; includes current and historical concepts.
ORTHOD 5705 Orthodontic and Dentofacial Orthopedics II Credits: 1-6
Prerequisites: ORTHOD 5704.

ORTHOD 5706 Orthodontics and Dentofacial Orthopedics III Credits: 1-6
Prerequisites: ORTHOD 5705.

ORTHOD 5707 Orthodontics and Dentofacial Orthopedics IV Credits: 1-6
Prerequisites: ORTHOD 5706.

ORTHOD 5708 Orthodontic and Dentofacial Orthopedics V Credits: 1-6
Prerequisites: ORTHOD 5707.

ORTHOD 5709 Orthodontic and Dentofacial Orthopedics VI Credits: 1-6
Prerequisites: ORTHOD 5708.

ORTHOD 5710 Orthodontic and Dentofacial Orthopedics VII Credits: 1-6
Prerequisites: ORTHOD 5709.

ORTHOD 5711 Orthodontics and Dentofacial Orthopedics VIII Credits: 1-6
Prerequisites: ORTHOD 5710.

ORTHOD 5726 Cephalometric I Credits: 2
An introductory lecture and laboratory course in the principles of radiographic cephalometry and integrated cephalometric analysis.

ORTHOD 5727 Cephalometric II Credits: 2
An advanced lecture and laboratory course with emphasis on the use of a computer in cephalometric analysis.

Periodontics Courses
PERIO 5700 Periodontic Residency I Credits: 1-2
Didactics, Seminars in Basic Periodontics with Clinical Practice.

PERIO 5701 Periodontal Residency I Credits: 1-6
Clinical Periodontics with Related Didactics and Seminar. This first year course introduces the incoming advanced education student to the principles and techniques in the field of advanced periodontics.

PERIO 5702 Periodontal Residency II Credits: 1-6
Clinical Periodontics with Related Didactic and Seminar. This first year course continues the instruction of the advanced education student to the principles and techniques in the field of advanced periodontics.

Prerequisites: PERIO 5701.

PERIO 5703 Periodontal Residency III Credits: 1-6
Clinical periodontics, with related didactics and seminar. This first year course continues the instruction of the advanced education student to the principles and techniques in the field of advanced periodontics, and builds upon the material taught in previous courses as well as introduces new information.

PERIO 5704 Periodontal Residency IV Credits: 1-6
Clinical periodontics with related didactics and seminar. This second year course is designed to transition the first year student into a second year advanced education student and builds upon the material taught in previous courses as well as introducing new information.

Prerequisites: PERIO 5701, PERIO 5702, PERIO 5703.

PERIO 5705 Periodontal Residency V Credits: 1-6
Clinical Periodontics with Related Didactics and Seminar. This second year course continues the instruction of the advanced education student to the principles and techniques in the field of advanced periodontics, and builds upon the material taught in previous courses as well as introducing new information.

Prerequisites: PERIO 5704.

PERIO 5706 Periodontal Residency VI Credits: 1-6
Clinical Periodontics with Related Didactics and Seminar. This second year course is designed to build upon the In-depth knowledge base of the advanced education student, as well as introducing new information, transitioning the student into a more proficient student in advanced periodontics.

Prerequisites: PERIO 5705.

PERIO 5707 Periodontal Residency VII Credits: 1-6
Clinical Periodontics with Related Didactics and Seminar. This third year course serves to transition the student into a clinician who by repeated action exhibits in depth levels of knowledge and skill. It builds upon material previously taught.

Prerequisites: PERIO 5706.
PERIO 5708 Periodontal Residency VIII Credits: 1-6
Clinical Periodontics with Related Didactics and Seminar. This third year course builds upon information previously taught and completes the transition of the student into a proficient specialist in Periodontology.
Prerequisites: PERIO 5707.

PERIO 5709 Periodontal Residency IX Credits: 1-6
Clinical Periodontics with Related Didactics and Seminar. This third year course is designed to build upon the in-depth information and knowledge base previously taught and completes the transition of the student into a proficient specialist in periodontology.
Prerequisites: PERIO 5708.

PERIO 5719 Implantology Credits: 2
This 2 credit hour seminar is designed for a student in the Advanced Education Program in Periodontology to develop in-depth knowledge of the concepts and theories of implant dentistry as they relate to periodontist. It will provide basic and advanced information and guidance which will serve to complement course work in PERIO 5702 through PERIO 5709, and the clinical implant dentistry experience offered in the program, at a minimum to a level of competency.

PERIO 5720 General Anesthesia Credit: 1
A rotation to the Department of Anesthesiology of K.C. Veterans Administration Medical Center. Students become familiar with operating room procedures, medical emergencies, venipuncture, airway maintenance and pharmaco-physiology of sedative, analgesic and anesthetic agents as well as drug interactions.

PERIO 5730 Biology Of The Periodontium Credits: 1-2
Biology of the Periodontium covers the embryology, histology, ultrastructure and biochemistry of stratified squamous epithelium, fibrous connective tissue, bone and cementum. These four tissues are studied in health and during inflammatory disease and healing of surgical wounds. Major emphasis is placed on immune system interactions with bone and fibrous connective tissue components during inflammatory periodontal disease.

PERIO 5799 Research And Thesis Credits: 1-6
PERIO 5899 Required Graduate Enrollment Credit: 1

Research Methodology-Dentistry Courses

RES-ME 5700 Introduction To Research Methodology Credits: 2-3
This lecture/discussion course will facilitate student’s understanding of terminology and key concepts of research methodology and design. Assigned exercises are designed to demonstrate application of research design principles, and to increase advanced education students’ competency in evaluating and planning scientific studies. This knowledge is indispensable for conducting meaningful research in advanced education certificate, masters of doctoral level programs.

RES-ME 5703 Thesis Writing Credit: 1
The methods of preparing, organizing, and presenting research findings using scientific writing format will be reviewed for completing a thesis. This course is required for the Master of Science degrees in Oral Biology and Dental Hygiene Education.

RES-ME 5704 Introduction to Biostatistics Credits: 2-3
A lecture/seminar course required for students pursuing a master’s degree. This course focuses on an in-depth coverage of statistical designs commonly found in dental research, statistical techniques associated with these designs, application to them via the use of a computer based statistical software analysis package, and the interpretation of statistical tests.
Prerequisites: RES-ME 5700.

RES-ME 5706 Dissertation Writing Credit: 1
Scientific writing format appropriate for preparing a dissertation will be reviewed. This course is required for the Interdisciplinary Ph.D. degree in Oral Biology.
Advanced Education Certificate Programs

An advanced education certificate program is offered in each of the following areas:

- Advanced Education in General Dentistry (p. 944)
- Endodontics (p. 946)
- Orthodontics and Dentofacial Orthopedics (p. 949)
- Periodontics (p. 952)

General Nature of Programs

Each certificate program curriculum is designed to prepare the student for specialty practice and to help the student meet the educational training requirements for examination by the appropriate American dental specialty board. All programs begin with the summer term (the first week of July). Programs vary in length from 12 to 72 months.

Admission to an advanced education dental certificate program is competitive. Primary focus is on the applicant's academic record while in dental school (minimum 3.0 GPA), including national board scores. Emphasis is also placed on information gathered from PASS application materials and professional evaluations (such as quality of professional practice experience, continuing education experience, research activities, leadership and involvement and participation in professional societies and community service). Another fundamental source of information is supplied by a personal on-site interview that is required of most programs and is by invitation.

Applicants to an advanced education dental certificate program must hold a D.D.S. degree or equivalent from a program accredited either by the Commission on Dental Accreditation (CDA) or the Canadian Dental Accrediting Commission (CDAC).

Admission

The Advanced Education Committee (AEC) serves as the admission review board for each of the advanced education dental certificate programs. Each program has its own admission review board. At a minimum, the admission review board consists of the respective program director and at least two other full-time faculty members.

Each program's admission review board submits its recommendations for acceptance to the AEC for consideration. Recommendations for acceptance include those identified as prime candidates (equal in number to the number of available residencies in the program) and those who serve as "alternates." Acceptance or denial of each recommended candidate is made by the AEC.
Certificate in Advanced Education in General Dentistry

Program Description:

Director:
Mary P. Walker DDS, PhD (Interim Director)

Faculty:
Gerald W. Ogilvie DDS; David A. Jackson, DDS; Steven J. Prstojevich, MD, DDS; Lauren Carr, DDS; Bruce C. Cummings, DDS; Sam E. Hayes, DDS.

The advanced education in general dentistry residency program is a 12-month Commission on Dental Accreditation (CODA) accredited program that begins July 1st of each year for six residents. The program is designed to refine and advance knowledge, skills, clinical competency, and proficiency in the practice of comprehensive general dentistry. The program bridges the gap between dental school and dental practice. Clinical instruction is offered in all of the clinical disciplines. The didactic component provides postgraduate training in the basic and behavioral sciences, as well as the clinical sciences and practice management. Upon completion of this program a certificate in “Advanced General Dentistry” will be awarded.

Eligibility
An applicant for this program must be a citizen of the United States or a foreign national having a visa permitting permanent residence in the United States. Applicants must also submit evidence of graduation from a school of dentistry accredited by the Commission on Dental Accreditation or the Canadian Dental Accrediting Commission, or verification from the dean of an accredited dental school that the applicant will graduate during the current academic year. A minimum dental school 3.0 GPA is required for all applicants. The Advanced Dental Admission Test (ADAT) is preferred but not required. Scores should be self-reported on the PASS application.

Tuition and Fees
Estimated school tuition and fees can be found here (https://www.umkc.edu/finadmin/cashiers/dentistry-tuition-fee-rates.asp) or from the dental school’s office of student programs (816-235-2080). If selected for the program there is a $500 nonrefundable acceptance fee which must be paid within 2 days of acceptance of the position. There is also a partial tuition waiver. More information will be provided to the applicant once he/she is accepted into the program.

Financial Assistance
Up-to-date additional information on financial assistance can be obtained at http://www.sfa.umkc.edu/

Stipend
Residents will receive an annual stipend of $49,000

Applications
Application to this program is through the ADEA PASS program. Use the link Important Information for Applicants (https://dentistry.umkc.edu/wp-content/uploads/2017/09/Advanced-Ed-Program-ApplicationInfo-2017.pdf) for greater detail. The deadline for receipt of application at the school is Oct. 1 of the year prior to planned enrollment.

Interview
Competitive applicants will be invited to Kansas City for an interview with the program director and other selected faculty and staff. If invited, the interview is a required part of the application process and funding is the responsibility of the applicant.

Point of Contact
To request further information, please contact the Research & Graduate Programs Office at (816) 235-6342 or umkcsodadvedpgms@umkc.edu.

Student Learning Outcomes
Residents on completion of the AEGD program will have the knowledge and experience to provide comprehensive multidisciplinary oral health care at a level of skill and competency beyond that achieved in their pre-doctoral training. It is expected that they will be able to provide this care to a broad and diverse patient population which includes the medically compromised and those with special needs.

The mission of the Advanced Education in General Dentistry (AEGD) Residency Program is to continue the professional development of oral health care providers in-keeping with the UMKC School of Dentistry’s core values of excellence, compassion, integrity, and justice. The Standards of the Commission of Dental Accreditation (CODA) is the accrediting body that provides the structure and educational outcomes required for its graduates to provide comprehensive oral health care to a wide range of population groups.

The objectives of the didactic and clinical experiences is to broaden and strengthen the scope and level of residents competencies and proficiencies in the practice of dentistry.
Student Learning Outcomes include:

1. Function as a patient’s primary and comprehensive oral health care provider.
2. Develop treatment planning and necessary referral skills.
3. Develop a sense of community service for oral health care for the under- and un-insured.

Educational formats used are: formal courses, lectures, seminars, literature reviews, assigned readings, hands-on courses, case presentation, attendance at continuing education, guest speakers, treatment planning conferences, clinical demonstrations and chairside clinical teaching.

**Program Requirements**

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<th>Title</th>
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<td>Biomaterials for the Restorative and General Dentist</td>
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</table>

**Graduation Requirements**

**Requirements for a Certificate in Advanced Education in General Dentistry (AEGD)**

Successful completion includes:

1. Maintaining a 3.0 GPA for all assigned didactic and clinical course work
2. Maintenance of all required clinical documentation
3. Document clinical cases for presentation at treatment planning seminars
4. Progressively increase resident’s scope of practice and increase clinical competencies beyond that of a graduate of a four year D.D.S. (D.M.D.) program
5. Provide dental care to a diverse population in an ethical, competent, compassionate and professional manner
6. Achieve established program “goals and objectives” established by the Council of Dental Accreditation (CODA) of the American Dental Association
7. Coordinate and participate in community service projects
8. Comply with all policies established by UMKC and the School of Dentistry.

UMKC is An Equal Opportunity/Access/Affirmative Action/Pro Disabled & Veteran Employer
Certificate in Endodontics

Program Description:

**Director:**
Kenneth J. Frick, DDS, MS, Diplomate, American Board of Endodontics.

**Faculty:**
Robert Blundell, DDS, MS, Diplomate, American Board of Endodontics; Ron Riley, DDS, Diplomate, American Board of Endodontics; Robert Edwards, DDS, Diplomate, American Board of Endodontics; Rebeca Weisleder Urow, DDS, MEd

**Program Overview**
The endodontic advanced education program is designed to prepare a dentist for a career in clinical endodontics, research, and teaching. The overall goal is to educate dentists to become competent clinical endodontists who will serve the public and the profession at a high level of excellence. It stresses the importance of knowledge and skills in the diagnosis, prevention, and treatment of diseases associated with the dental pulp and related periapical tissues. Didactic and clinical training is also conducted in other related areas within the scope of practice of the field of endodontics as established by the Endodontic Standards of the Commission on Dental Accreditation. The correlation of basic sciences and clinical sciences is an integral part of the program. A research project is required and comprehensive oral examinations must be successfully completed. The program is also designed to prepare the graduate endodontist to challenge the requirements for certification as a Diplomate by the American Board of Endodontics. Individuals who successfully complete this advanced education program will be awarded a Certificate in Endodontics. Concurrent enrollment for an MS degree in Oral and Craniofacial Sciences (OCS) is also possible. The MS program requires a separate application after the student has been accepted into the Endodontics program. An additional time commitment of three to six months is likely required to complete the MS degree.

**Accreditation**
The program in endodontics is accredited by the Commission on Dental Accreditation and has been granted the accreditation status of "approval without reporting requirements". The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-4653 or at 211 East Chicago Avenue, Chicago, IL 60611.

**Eligibility**
An applicant for this program must be a citizen of the United States or permanent resident in the United States. Applicants must also submit evidence of graduation from a school of dentistry accredited by the Commission on Dental Accreditation or the Canadian Dental Accrediting Commission. A minimum dental school 3.0 GPA is required for all applicants. Applicants are required to take the Advanced Dental Admission Test (ADAT). Scores should be self-reported on the PASS application; in addition, please send your scores to the Program Director at ffrick@umkc.edu. Successful completion of a U.S. regional or equivalent Canadian clinical licensure exam is required prior to or no later than the end of the first year of residency. Application to the optional Oral & Craniofacial Sciences MS program requires successful completion of the GRE.

**Program Duration**
Beginning July 1st, the certificate program runs 24 months over six continuous semesters. Enrollment in the optional OCS MS program may require an additional three to six months to complete.

**Number of Residents**
There are two first-year and two second-year residents.

**General Applicant Information**
Application to this program is through the ADEA PASS program. The deadline for receipt of application at the school is August 1st of the year prior to planned enrollment, however, applicants are highly encouraged to complete their applications by the earliest possible date. Detailed application information is available at Important Information for Applicants. (https://dentistry.umkc.edu/wp-content/uploads/2017/09/Advanced-Ed-Program-ApplicationInfo-2017.pdf)

**Graduate Medical Education (GME) Stipends**
Currently, residents are eligible for GME stipends of approximately $21,000 per year. This is a federal, not School of Dentistry, program and is subject to current federal guidelines.

**Program Stipend**
Endodontic residents will receive an annual stipend of $20,000.
Tuition and Fees
Estimated school tuition costs can be found in the Fees section of this catalog. If selected for the program, there is a $1,000 nonrefundable acceptance fee which must be paid within two days of the time of acceptance of the position. More information will be provided to the applicant once he/she is accepted into the program. There is also a partial tuition waiver.

Instruments and Equipment
Residents will be required to lease their dental instruments through the school and purchase some other instruments and equipment. The school employs a centralized sterilization program for the lease of instruments. Additionally, each resident is required to purchase an endodontic operating microscope (Zeiss Pico) with floor stand. The microscope will include beam splitter, Mora, and Varioskop adapters. A camera body will also be required to attach to the beam splitter (Recommended: Sony a7 Full-Frame Mirror-less Digital Camera). A list of other required instruments and textbooks will be provided when an applicant is selected to attend the program. Estimated cost for purchases for the 24-month program are approximately $40,000. All of these purchases go with the resident when he/she graduates from the program. Estimated lease expenses are approximately $8,800 for the 24-month program, $2,200 per each fall and spring semesters. Currently, there are no charges for leased instruments for the summer semesters.

Advanced Education Endodontic Clinic
The advanced education endodontic clinic is a true state-of-the-art facility made possible by the generous donations of Mrs. Virginia Stowers, Dr. Ben Johnson, and other benefactors. All rooms are equipped with resident-purchased dental operating microscopes. Each room has its own x-ray head, 50” video monitor, Adec track light system, and ASI dental unit carts complete with air-driven high and low speed fiber optic handpieces, two electric handpieces, two ultrasonics, dual micro irrigators, micro air syringes, and curing light. The program is linked into the all-electronic paperless patient record management system which also integrates the digital x-ray sensors available in each operatory. Also please see https://dentistry.umkc.edu/about-us/ for more information about faculty, residents and staff.

Study Areas
Residents have dedicated office space with high-speed computer and printer support connected to a high-speed LAN. The program also has a dedicated seminar room for literature reviews, case presentation, lectures, etc.

Financial Assistance
Up-to-date additional information on financial assistance can be found in the School of Dentistry portion of the Financial Aid Charts at http://www.sfa.umkc.edu

Interview
Selected applicants will be invited to Kansas City for an interview with the program director and other selected faculty and staff. If invited, the interview is a required part of the application process, and travel expenses are the responsibility of the applicant. Preference is given to those applicants who have both general practice experience and completion of an AEGD or GPR program.

Point of Contact
To request further information, please contact either the Office of Student Programs at (816) 235-2080 or dds@umkc.edu or the program director, Dr. Kenneth J. Frick, at (816) 235-2479 or frickk@umkc.edu

Student Learning Outcomes
Students graduating from this program will:

- 1. Demonstrate advanced clinical skills in the treatment of a variety of endodontic clinical conditions.
- 2. Express an understanding of the historical database of endodontic literature and apply it to current clinical treatments.
- 3. Demonstrate successful completion of Oral and Craniofacial Sciences didactic courses.
- 4. Demonstrate the ability to prepare a research and execute a research project.
- 5. Demonstrate skills of communication through examples to peers, faculty, and public presentations
- 6. Demonstrate and practice professional ethics with the highest standards of integrity in all facets of endodontic clinical and reflect positively on their relationship with the University.

Program Requirements

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<tr>
<th>Code</th>
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<td>ENDO 5705</td>
<td>Endodontology 5</td>
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ENDO 5706  Endodontology 6  1-6
BMS 9701  Clinical Anatomy of Head and Neck  2
BIO-SCI 5740  Oral Pathology I  2
RES-ME 5700  Introduction To Research Methodology  2
RES-ME 5704  Introduction to Biostatistics  2
BIO-SCI 5760  Physiology of Oral Mineralized Tissues  2
BIO-SCI 5759  Special Problems in Pharmacology  2
BIO-SCI 5739  Biomaterials for the Dental Specialist  1

**Graduation Requirements**

1. Satisfactory completion of all clinical and basic science core courses as outlined for the endodontic curriculum.
2. Satisfactory completion of all endodontic courses and seminars.
3. Achievement of clinical competency in endodontics.
4. Advanced Endodontics residents must maintain a 3.0 GPA for all coursework taken at UMKC. Courses that are audited will require 100% attendance and residents will be required to complete the final exam. Failure by any resident to meet the 100% attendance requirement for any audited courses will result in written and/or oral examinations in those courses at the discretion of the Program Director. Residents are entitled to due process in accordance with guidelines contained in the Student Handbook on Academic and Other Policies.
5. The goal for each resident is to complete at least 250 clinical endodontic cases. These cases will include, but not be limited to, the following: nonsurgical, surgical, retreatment, and incomplete endodontic therapies; vital pulp treatment, apexification, trauma, endo-perio, restoration of endodontically treated teeth, and bleaching. The cases treated should include as many and as varied types of cases, in order to give the broadest exposure and experience necessary to graduate as the best qualified endodontist. A list of all cases will be maintained by the resident. The completed cases will be reviewed and graded on a weekly and monthly basis by the Program Director.
6. Preparation of a Capstone Portfolio. This portfolio of endodontic cases will showcase the resident’s best work. It will be presented in the ABE Portfolio format, with twenty cases selected according to the guidelines published by the ABE. The Portfolio will also contain a dental implant case report made from observations in the Advanced Education in Periodontics clinic. Finally, a copy of the resident’s research manuscript will be included. Each portfolio will include a written self-assessment by the resident, and a completed faculty assessment rubric on demonstrated CODA clinical standards. A copy will be retrained in the Program Director’s Office for future reference.
7. Documented research*. A suitable project approved by the Research Advisors and the Program Director, conduct of the research, collection of data, analysis of results, and preparation of a manuscript suitable for submission to a refereed journal must be completed before the conclusion of the program. If, for whatever reason, a waiver is granted by the Program Director for an extension of the submission deadline date, the resident may forfeit the right of first-authorship. A request to submit the research findings as an oral presentation at the Annual Session of the AAE or a poster board presentation at the Midwest Dental Conference is required.

*For those residents dually-enrolled in the Oral and Craniofacial Sciences program, they will complete their research requirements via the MS degree process with the degree conferred by the School of Graduate Studies.

1. Attendance at all scheduled classes, seminars, clinics, and meetings is mandatory. Attendance is also required for all consultant lecturers established by the Program Director or the person he has delegated this responsibility. This may involve an occasional evening or weekend event. Absences will only be allowed under special pre-arranged conditions and may result in additional assignments such as written literature review reports.

UMKC is An Equal Opportunity/Access/Affirmative Action/Pro Disabled & Veteran Employer
Certificate in Orthodontics and Dentofacial Orthopedics

Program Description:

Director:
Jeff Nickel, DMD, MSc, PhD

Faculty:
Laura Iwasaki, DDS, MSc, PhD, Leo Rogers Chair; James Osborne, DDS, Clinic Director; Steve Billings, DDS; Dustin Burleson, DDS; Frank Crist, DDS, MS; Scott Hamilton, DDS, MSD; Kurt Hoffman, DDS; Mike Klein, DDS; Steve Malmstrom, DDS; Brad Smith, DDS; Shankar Rengasamy Venugopal, BDS, PhD, DMedSc; Jeff Thompson, DDS, MS; Cameron Walker DDS, MS, PhD; Don Wilson, DDS; Dan Ranjibar, DDS; Genavieve Hendricks, DDS, MS.

Program Overview
The advanced education program in orthodontics and dentofacial orthopedics has existed since 1946. UMKC Orthodontics Alumni are located in many states and some foreign countries.

This is a full-time, 30 month program that begins July 1st. It is designed to prepare the student for community practice of orthodontics and dentofacial orthopedics. Curriculum emphasis is placed on the edgewise technique and on interceptive and functional treatment. Management of craniofacial anomalies is taught didactically and clinically in association with the craniofacial team at Children’s Mercy Hospital. Objective inquiry and statistical validation are emphasized in all aspects of this program. Completion of an original research project and paper is required. The computerized clinic facility is a working-research model that simulates the private practice environment. Courses, clinics, and dedicated research time are organized to facilitate the completion of an MS or PhD degree in Oral and Craniofacial Sciences. A separate application is required for the MS or PhD program.

Application and Acceptance
An applicant for this program must be a citizen of the United States or permanent resident in the United States. Applicants must also submit evidence of graduation from a school of dentistry accredited by the Commission on Dental Accreditation or the Canadian Dental Accrediting Commission. A minimum dental school 3.0 GPA and completion of the GRE is required for all applicants.

Applications are considered from the following groups:

- Fourth-year dental students from American Dental Association (ADA) or Canadian Dental Association (CDA) Accredited schools who are in the top 50 percent of their graduating class.
- Graduates of ADA or CDA accredited dental schools who ranked in the top 50 percent of their graduating classes and have satisfactorily completed a general practice residency or other dental specialty program prior to application.
- Graduates of a School of Dentistry who ranked in the top 50 percent of their class and have been in general practices.

Selection of candidates is a twofold process. First, candidates are stratified on the basis of academic and professional performance: passing the national board examinations, GRE scores, class standing, other specialty program education, practice experience, leadership roles in organized dental groups, dental school teaching, research experience and recommendations are considered. Preferences will be given to individuals who limit their applications to programs participating in MATCH.

Secondly, applicants meeting screening criteria are invited for interviews. All interviews are conducted at the School of Dentistry on the same day and all invited candidates must attend this session to be eligible for final selection into the class. If offered a position in a class, this offer, like all others from the University, is contingent upon a successful background screening. In order to begin the background screening, you must complete a Disclosure form and return it to Human Resources within two business days. Three residents are accepted into this program annually. Accepted residents must successfully complete a U.S. regional or equivalent Canadian clinical licensure exam prior to or no later than the end of the first year of residency.

Application for admission MUST be through the ADEA PASS program and completed on or before September 1st of the year prior to planned enrollment. For more information, check the website Important Information for Applicants. (https://dentistry.umkc.edu/wp-content/uploads/2017/09/Advanced-Ed-Program-ApplicationInfo-2017.pdf)

Stipend
Orthodontic residents will receive an annual stipend of $20,000 paid on a monthly basis.

Tuition and Fees
Estimated tuition and fee costs may be found here. (https://www.umkc.edu/finadmin/cashiers/dentistry-tuition-fee-rates.asp) There are additional costs for books, laptop computer and required meeting attendance associated with this program.

Instruments
Residents are required to pay an "instrument usage" fee to the school. All instruments are provided and are maintained by the Central Sterilization program of the school.
Financial Assistance
Up-to-date information on additional financial assistance may be found in the school financial aids charts at http://www.sfa.umkc.edu/.

Student Learning Outcomes
Residents enrolled in the Orthodontics and Dentofacial Orthopedics Advanced Education Program must meet the following student learning outcomes:

1. Demonstrate diagnostic skills:
   1.1 Assemble diagnostic data to enable determination of the degree to which skeletal and dentoalveolar discrepancies contribute to the morphology of the craniofacial complex in three dimensions
   1.2 Show competency in the use and application of the American Board of Orthodontics Discrepancy Index

2. Demonstrate the ability to synthesize treatment plans, and implement appropriate therapeutic modalities:
   2.1 Correctly determine the appropriate use of dentofacial orthopedics and demonstrate clinical skills in management
   2.2 Demonstrate an ability to correctly plan and implement mechanotherapies for correction of dentoalveolar malocclusions
     2.3 Develop and implement the appropriate plans for 2 phase mechanotherapy
     2.4 Successfully promote interdisciplinary treatment plans

3. Demonstrate the ability to analyze treatment outcomes:
   3.1 Report assessments of skeletal changes related to growth and treatment
   3.2 Accurately describe dentoalveolar treatment outcomes
   3.3 Demonstrate proficiency in evaluation of soft tissue effects of therapy

3.4 Formulate an assessment of case difficulty and treatment outcomes using the American Board of Orthodontics (ABO) Index of treatment difficulty, and ABO index of treatment outcome

Program Requirements
The following learning outcomes have been developed and adopted by the faculty. These goals, skills and knowledge every graduate must demonstrate to qualify for graduation. The Department of Orthodontics and Dentofacial Orthopedics require these outcomes be assessed in the classroom, the laboratory, and through treatment of clinical cases over the 30-month program. Their competencies are assessed through examinations, presentations of papers, and clinical treatment comprehensive examinations.

1. Demonstrate a commitment to learning, professionalism, societal responsibility, and contributing to generalizable knowledge through research
2. Demonstrate a commitment to the addressing the concerns of patients and the delivery of quality care.
3. Demonstrate the level of proficiency expected of an orthodontic specialist in the areas of diagnosis, treatment planning, and analysis of treatment outcomes.

Required Core Curriculum

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Total Credits 39
Certificate in Periodontics

Program Description:

Director:
Scott F. Gruwell, DDS, MS, Diplomate, American Board of Periodontology

Faculty:
Keerthana Satheesh, BDS, DDS, MS, Department Chair, Diplomate, American Board of Periodontology; Nancy Newhouse, DDS, MS, Diplomate, American Board of Periodontology; Mark Edwards, DDS, Diplomate, American Board of Periodontology; Simon R. MacNeill, BDS, DDS, Diplomate, American Board of Periodontology; Mabel Salas, DDS, MS, Diplomate, American Board of Periodontology; Laura Brown, DDS, MS, Diplomate, American Board of Periodontology; Rosemary Thomas, DMD, MS, Diplomate, American Board of Periodontology; Jonathan Thomas, DDS, Diplomate, American Board of Periodontology; Nabil Beaini, DDS, Diplomate, American Board of Periodontology; Michelle McHale, DDS, Board Eligible.

Program Overview
The periodontics advanced education program is designed to prepare a dentist for a career in clinical periodontics, research and teaching. It enables the resident to acquire an in-depth understanding in oral biology; to become acquainted with the problems in the biology and pathology of oral tissues, and to adequately treat these problems with the most current evidence and techniques. Program students will be encouraged to use interdisciplinary approaches to solve research and clinical problems. The program is designed to provide for the profession and the community, competent bio-clinicians who will become key professionals in clinical practice, research, and teaching. Didactic and clinical training will also be conducted in other related areas within the scope of practice of the field of periodontics as established by the Periodontic Standards of the Commission on Dental Accreditation. A research project is required and comprehensive examinations must be successfully completed. The program is also designed to prepare the graduate periodontist to challenge the requirements for certification as a Diplomate of the American Board of Periodontology. Individuals who successfully complete this advanced education program will be awarded a Certificate in Periodontics. Concurrent enrollment for an MS degree in Oral and Craniofacial Sciences (OCS) is also possible. The MS program requires a separate application after the student has been accepted into the Periodontics program.

Eligibility
Eligible applicants for this program must be citizens of the United States or a foreign national having a visa permitting permanent residence in the United States. Applicants must also submit evidence of graduation from a school of dentistry accredited by the Commission on Dental Accreditation or the Canadian Dental Accrediting Commission, or verification from the dean of an accredited dental school that the applicant will graduate during the current academic year. Successful completion of a U.S. regional or equivalent Canadian clinical licensure exam is required prior to or no later than the end of the first year of residency.

Program Duration
This is a full-time, 35-month program that begins July 1.

Number of Residents
Two residents are typically accepted into the program each year.

General Applicant Information
Application to this program is through the ADEA PASS program. The deadline for receipt of application at the school is August 1st of the year prior to planned enrollment. All applicants are required to submit the Institutional Evaluation AND Professional Evaluation Form (PEF) as part of their completed PASS application. A minimum of three professional evaluators (dental faculty) are required to submit evaluations for the PEF. The Advanced Dental Admission Test (ADAT) is optional but not required. Scores should be self-reported on the PASS application. For those interested in concurrent enrollment in the Oral and Craniofacial Sciences MS program, GRE scores will be required. Scores should be self-reported on the PASS application; official GRE scores should be submitted directly to UMKC (GRE code is 6872.) Detailed application information is available at Important Information for Applicants. (https://dentistry.umkc.edu/wp-content/uploads/2017/09/Advanced-Ed-Program-ApplicationInfo-2017.pdf)

The advanced education certificate program in Periodontics participates in the National Matching Services (MATCH) process. Candidates to these program must also register for this service within the ADEA PASS applicant portal (www.adea.org (http://www.adea.org)). There are two phases of the MATCH process, each with its deadline date for receipt of Rank Order List forms from applicants. The Phase I deadline (typically towards the end of November each year) is for applicants to the Periodontics program.

Selection is based on academic standing in dental school (grade-point average, class standing and National Board scores) and experience (years in practice, teaching or research, advanced training or degrees, publications, activity in organized dentistry and participation in continuing education). Preferences will be given to individuals who limit their applications to programs participating in MATCH.

Stipend
Periodontics residents will receive an annual stipend of $20,000 paid on a monthly basis.
Tuition and Fees
Estimated school tuition and fees can be found here. (https://www.umkc.edu/finadmin/cashiers/dentistry-tuition-fee-rates.asp) If selected for the program, there is a $1000 nonrefundable acceptance fee which must be paid within two days of the time of acceptance of the position. More information will be provided to the applicant once he/she is accepted into the program.

Instruments and Equipment
Residents are required to lease their dental instruments through the Infection Control Instrument Management System of the School and will also be required to purchase some additional equipment including a clinical camera.

Financial Assistance
Up-to-date additional information on financial assistance can be obtained at http://www.sfa.umkc.edu/.

Interview
Competitive applicants will be invited to Kansas City for an interview with the program director and other selected faculty and staff. If invited, the interview is a required part of the application process and funding is the responsibility of the applicant.

Accreditation
The advanced education program in periodontics is fully accredited by the Commission on Dental Accreditation. The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-2500 or at 211 East Chicago Avenue, Chicago, IL 60611. Their website is: http://www.ada.org/en/coda.

Study Areas
Residents have a dedicated office space with computer and printer support connected to a high-speed LAN. The program also has a dedicated seminar room for literature reviews, case presentation, lectures, etc.

Point of Contact
To request further information, contact the Office of Student Programs at (816) 235-2080 or dds@umkc.edu; or the program director, Dr. Scott Gruwell, at (816) 235-5210 or gruwells@umkc.edu.

Student Learning Outcomes
The following learning outcomes have been developed and adopted by the faculty. These goals, skills, and knowledge must be demonstrated by every graduate to qualify for graduation. The Department of Periodontics assesses these outcomes in the classroom, the laboratory, and through treatment of clinical cases over the length of the program, using examinations, presentation of papers, and review of clinical treatment.

Residents enrolled in the Periodontics Program must meet the following student learning outcomes:

1. Obtain a mastery level understanding of the periodontium in an evidence-based manner.
2. Demonstrate comprehensive diagnostic skills and the ability to perform advanced periodontic therapy as well as evaluate the results of treatment.
3. Understand the scientific method as it relates to the field of periodontics.

Program Requirements
Residents enrolled in the Periodontics Advanced Education Program must maintain a 3.0 (B) grade point average for all coursework taken for graduate credit at UMKC. Below is a list of required courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PERIO 5701</td>
<td>Periodontal Residency I</td>
<td>1-6</td>
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<tr>
<td>PERIO 5702</td>
<td>Periodontal Residency II</td>
<td>1-6</td>
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<tr>
<td>PERIO 5703</td>
<td>Periodontal Residency III</td>
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<tr>
<td>PERIO 5704</td>
<td>Periodontal Residency IV</td>
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<tr>
<td>PERIO 5705</td>
<td>Periodontal Residency V</td>
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<tr>
<td>PERIO 5706</td>
<td>Periodontal Residency VI</td>
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<tr>
<td>PERIO 5707</td>
<td>Periodontal Residency VII</td>
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<tr>
<td>PERIO 5708</td>
<td>Periodontal Residency VIII</td>
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<tr>
<td>PERIO 5709</td>
<td>Periodontal Residency IX</td>
<td>1-6</td>
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<tr>
<td>PERIO 5719</td>
<td>Implantology</td>
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<tr>
<td>PERIO 5720</td>
<td>General Anesthesia</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
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<tr>
<td>PERIO 5799</td>
<td>Research And Thesis</td>
<td>1-6</td>
</tr>
<tr>
<td>BMS 9701</td>
<td>Clinical Anatomy of Head and Neck</td>
<td>2</td>
</tr>
<tr>
<td>BIO-SCI 5740</td>
<td>Oral Pathology I</td>
<td>2</td>
</tr>
<tr>
<td>RES-ME 5700</td>
<td>Introduction To Research Methodology</td>
<td>2</td>
</tr>
<tr>
<td>BIO-SCI 5710</td>
<td>Genetics and Biochemistry of Cranial Facial Biology</td>
<td>2</td>
</tr>
<tr>
<td>RES-ME 5704</td>
<td>Introduction to Biostatistics</td>
<td>2</td>
</tr>
<tr>
<td>BIO-SCI 5805</td>
<td>Molecular Biology of Oral Microflora</td>
<td>2</td>
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<tr>
<td>BIO-SCI 5760</td>
<td>Physiology of Oral Mineralized Tissues</td>
<td>2</td>
</tr>
<tr>
<td>BIO-SCI 5759</td>
<td>Special Problems in Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>BIO-SCI 5802</td>
<td>Immunopathology</td>
<td>2</td>
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UMKC is An Equal Opportunity/Access/Affirmative Action/Pro Disabled & Veteran Employer
About the Undergraduate Dental Hygiene Program

Dental hygiene is a rapidly growing and increasingly dynamic allied health profession for qualified persons who wish to participate as active members of a health field. Service to mankind is the primary purpose of health professions. The dental hygienist with a baccalaureate degree accomplishes this objective through a variety of challenging and rewarding opportunities.

There is informal evidence that a nine-month dental hygiene program existed at UMKC (then the Kansas City Western Dental College) in 1922-23, as did a one-year program during the '30s. However, concrete documentation indicates that the official program began in 1952.

The program in dental hygiene is accredited by the Commission on Dental Accreditation, a specialized accrediting body recognized by the Council on Post-Secondary Accreditation and the U.S. Department of Education.

The student at UMKC can earn a bachelor of science degree in dental hygiene in two ways. The first alternative offers an opportunity for the student who has completed two academic years of liberal arts pre-requisites at any accredited community/junior college, college or university to matriculate into the entry level clinical dental hygiene program. The second alternative provides for the licensed dental hygienist with a certificate or associate degree an opportunity to earn a baccalaureate degree (degree completion).

Undergraduate

The Division of Dental Hygiene at the UMKC School of Dentistry offers two routes to a Bachelor of Science degree in Dental Hygiene: The B.S. Clinical Entry-Level program and the B.S. Degree Completion program. The following competencies have been adopted by the faculty in the Division of Dental Hygiene as the skills, knowledge and values every graduate must be able to consistently and independently demonstrate to qualify for graduation. The School of Dentistry, Division of Dental Hygiene assessment plan calls for theses competencies to be assessed throughout the classroom, laboratory and patient care experiences during the student’s tenure in the program in the form of papers, case study presentations, student portfolios, clinical competency examinations, community assessment and other appropriate assessment measures.

- Bachelor of Science in Dental Hygiene
- General Education Requirements
- Entry Level Program
  - Admission Requirements
  - Program Requirements
- Degree Completion Program
  - Admission Degree Completion Program (p. 964)
  - Program Requirements (p. 969)

Graduate/Professional

Master of Science - Dental Hygiene Education (p. 977)

Courses

DENT-HYG 3000 Dental Morphology And Occlusion Credits: 2
This course is designed to provide the dental hygiene student with a sound knowledge base in dental morphology and occlusion through discussion and laboratory experiences. Students will learn to identify anatomical structures of each tooth and be able to communicate these findings effectively with colleagues and patients in both verbal and written forms. Throughout the course, the clinical application and relevance of dental morphology in the practice of dental hygiene will be emphasized. Special consideration will be given to root morphology as it relates to periodontal instrumentation. Activities will include: identification of extracted teeth, terminology exercises, dental charting experiences and identifying classifications of occlusion.

DENT-HYG 3020 Dental Radiology Credits: 2
Lecture and clinical practice of dental radiographic procedures. Topics included are radiation hygiene, taking and developing radiographs, processing and mounting films, and radiographic interpretation. Clinical experience is required throughout the remaining semesters.

DENT-HYG 3030 Introduction to Histopathology of Oral Tissues Credits: 2
A comparison of the microscopic anatomy of healthy and diseased oral tissues. The major goal of this course is to integrate basic sciences (embryology, descriptive histology, and cell biology of oral tissues) with clinical sciences. The gap between the basic and clinical sciences is not always easy to bridge; this course is designed to bridge the "gap." This course provides students with an introduction to oro-facial histology and embryology and pathology that may arise from the tissues of the head, neck, and oral cavity.

Prerequisites: Dental hygiene student.
DENT-HYG 3080 Introduction to the Preventive Practice of Dental Hygiene Credits: 4
This course will introduce theories and rationales for basic clinical dental hygiene care (infection control, oral examination and fundamentals of instrumentation) in diverse populations. Practical application of specific clinical skills will be introduced in the classroom and applied in the clinical setting.

DENT-HYG 3080L Preclinical Dental Hygiene Credits: 2
This course emphasizes the practical application of the fundamental concepts and principles of patient care in a diverse society discussed in DENT-HYG 3080. Emphasis is placed on patient assessment and techniques of instrumentation for examination and dental hygiene treatment. After the student has mastered basic skills, he/she will begin to provide direct dental hygiene services.

DENT-HYG 3200 General and Oral Pathology Credits: 2-3
An introduction to the principles of general pathology and organ system pathology including inflammation, immunity and diseases of immune origin, genetic diseases, neoplasia with emphasis on oral cancer, and diseases of selected organ systems including pulmonary, cardiovascular, hematopoietic, endocrine, skeletal, gastrointestinal, hepatic, pancreatic and other systems as time permits.

DENT-HYG 3210 Applied Nutrition and Biochemistry Credits: 2
This course introduces biochemistry and nutrition, encouraging identification of sources and application of specific nutrients for health. Contents familiarize students with roles of nutrition and places emphasis on the hygienist’s role as nutritional educator—utilizing skills of recognition, prevention and treatment of related disease(s) and support of good oral health. Topics build on previous knowledge of chemistry, biology and physiology in application to health, coupled with deficient/optimal nutrition. Students will utilize motivational interviewing pertaining to counseling to help patients assign values, prioritize, and meet agreed upon goals. The format will include face-to-face lectures, online supplements, short labs, and group assignments/presentations.
**Prerequisites:** CHEM 211 and CHEM 211L; LS-PHYS 217.

DENT-HYG 3220 Dental Biomaterials Credits: 2
This course is designed to provide the dental hygiene student with a sound knowledge base in the science and manipulation of dental biomaterials. Through lectures and laboratory sessions, the student’s ability to make clinical judgments regarding the application of dental biomaterials and the ways in which materials react to the oral environment will be enhanced.

DENT-HYG 3260 Principles Of Periodontics Credits: 2
This course in Periodontics will cover the biological and clinical aspects of periodontal health and pathology. An introduction to the supporting structures of the teeth will provide the foundation of understanding pathogenesis, histopathology and subsequent therapeutic treatment of periodontal diseases. The dental hygienist’s role in recognition, prevention and treatment of periodontal diseases and maintenance of periodontal health is examined.

DENT-HYG 3280C Dental Hygiene Clinic I Credits: 3
Students will further develop clinical skills and techniques learned in DENT-HYG 3080L and previous courses by providing services to patients.

DENT-HYG 3285 Seminar In Dental Hygiene I Credits: 2-3
This course expands on theory and background presented in DENT-HYG 3080. Topics include expanding dental hygiene skills required for the care of patients and continued development of problem solving abilities and critical thinking skills as they relate to the provision of dental hygiene care. Provide students with a more insightful view of the role of the dental hygienist in the delivery of comprehensive patient care.

DENT-HYG 3300 Radiographic Interpretation Credits: 0.5
The purpose of the course is to introduce interpretation of radiographic anomalies and pathology just prior to the clinical experience. Since there was little time for an emphasis on radiographic interpretation during your second year radiology course, this lecture and participation course supplement clinic instruction in diagnosis of the patient’s oral needs and formulation of a treatment plan. Upon completion of this course, the student should be able to recognize simple pathology and radiographic anomalies.

DENT-HYG 3320 Oral Health Behavior Change Credits: 3
The purpose of this hybrid course is to prepare the junior dental hygiene student to effectively assess and individualize preventive oral health care through the use of brief motivational interviewing. The course will include evidenced based information in dental caries and caries risk assessment, caries preventive measures, introduction to periodontal disease, dental stains, and management of xerostomia, halitosis, and dentinal sensitivity, oral healthcare products and how to care for an oral appliance. The student will subsequently apply course concepts to facilitate patient behavior change in the clinical setting. Recommended preparation: a course in General Psychology.

DENT-HYG 3340 Principles Of Public Health Credits: 2
This course introduces the student to principles of public health, the field of epidemiology, health care delivery systems, public health terminology and teaching methodologies to use in culturally diverse community settings. Students will have the opportunity to assess a target population, plan, implement and evaluate appropriate programs. Students will also apply theories and skills of communication and education while preparing and presenting oral health education programs for various population groups.

DENT-HYG 4001 Clinical Oral Radiology Credit: 1
Clinical application of radiology principles taught in preceding terms. To provide clinical skills to safely make and interpret radiographic images for the provision of oral health care.
DENT-HYG 4020 Local Anesthesia And Pain Control Credits: 3
This course is designed to prepare dental hygiene students for the safe, effective administration of local anesthesia and nitrous oxide sedation. Included are content areas in anatomy, physiology, pharmacology, and emergency management as they relate to the administration of local anesthetics, nitrous oxide, and pain control. Laboratory sessions are structured to develop actual experiences in administration of local anesthetics and nitrous oxide. Various mechanisms for pain control are also covered. Methods of presentation include lecture, large group discussion, laboratory and clinical participation.

DENT-HYG 4040 Foundations of Teaching Credits: 2
This course provides an introduction to the evidence-based best practices in course design for students who are preparing for a career in teaching and for those who simply wish to learn more about classroom instruction. Students will explore outcomes centered course design and practical and effective instructional strategies. Content application activities include syllabus development, writing objectives, constructing lesson plans, preparing presentations and developing course management sites.

DENT-HYG 4050 Periodontics II Credit: 1
This course in Periodontics will provide and introduction to Phase II and III therapy. Periodontal decision making will be emphasized. The dental hygienists' role in recognition, prevention and treatment of periodontal diseases and maintenance of periodontal health is further examined. 
Prerequisites: DENT-HYG 3260.

DENT-HYG 4060C Dental Hygiene Clinic II Credits: 2
The student will continue to develop competency in basic dental hygiene skills. Principles of periodontal techniques, such as non-surgical periodontal therapy, supportive treatment procedures and comprehensive patient care in a diverse society will be emphasized. The student will be asked to demonstrate professional management skills and productivity.

DENT-HYG 4065 Seminar in Dental Hygiene II Credit: 1
This seminar course is offered in conjunction with DENT-HYG 4060C, and expands upon theory and background presented in other dental hygiene courses within the curriculum which will involve further development of their critical thinking/problem solving skills regarding patient care. Students will be provided with further instruction regarding advanced instrumentation, cultural diversity, motivational interviewing and other technological advancements utilized in dental hygiene care.
Co-requisites: DENT-HYG 4060C.

DENT-HYG 4080 Introduction to Research and Evidence Based Decision Making Credits: 2
This is a lecture/discussion course with assigned exercises in the research process and evaluating scientific studies. Students will apply basic principles of research design and methodology to the critical analysis of contemporary oral health related literature focusing on the review and evaluation of literature as it relates to the practice and profession of dentistry and dental hygiene with the intent of utilizing an evidence-based approach to care.

DENT-HYG 4100 Pharmacology Credits: 3
An overview and introduction to the major drug groups and common drugs taken by dental outpatients. Course includes the basic principles and general theories of drug action, basic pharmacokinetics, their mechanisms of action and therapeutic uses and the relative dental significance of each.

DENT-HYG 4110 Introduction to Research Methodologies Credits: 2
This is a lecture/discussion course with assigned exercises in the research process and evaluating scientific studies. Students will learn the basic principles involved in research design and methodology and will apply those principles to the critical analysis of contemporary health related literature. Focus on the review and evaluation of literature as it relates to the practice and profession of dentistry with the intent of utilizing an evidence-based approach to care will be stressed.

DENT-HYG 4115 Practicing in the Dental Hygiene Public Health Safety Net Credits: 3
The course is designed to increase the knowledge base of the practicing dental hygienist in the area of public health dentistry, including health promotion, disease prevention, current legislation, evidence based treatment, school based portable dentistry, coalitions, treating the geriatric and disabled populations, as well as how to write and secure.

DENT-HYG 4120C Dental Hygiene Clinic III Credits: 4
The student will continue to develop competency in intermediate dental hygiene skills. Principles of periodontal techniques, such as root planning, pain control and supportive techniques will be stressed. Comprehensive treatment planning and implementation of comprehensive care to a diverse patient population will be the focus of this course. Continued development of professionalism, management and critical thinking skills will be emphasized.

DENT-HYG 4125 ECP III Training Course Credits: 2
The ECP III Training Course is designed to prepare a registered dental hygienist to apply for the Kansas Extended Care Permit III. Hygienists with the ECP III certificate can practice under the sponsorship of a dentist in a variety of public health settings including schools and long term care facilities in Kansas.

DENT-HYG 4130 Introduction to Instructional Technologies and Online Learning Credit: 1
The web-based multimedia course will examine the mediated communication process using Internet tools and is designed to help the incoming student become prepared to succeed in their degree program using online technologies. Students will exam the changes and challenges associated with mediated synchronous and asynchronous technologies. The course will be delivered in four different modules.
DENT-HYG 4150 Portfolio Capstone Credit: 1
The capstone course serves as the culminating experience for students in the BSDH Degree Completion Program. During the Capstone course, students will create a coherent and cohesive body of work reflective of attainment of the competencies for the BSDHDC program—in the form of an e-Portfolio.

DENT-HYG 4210 Practice Management Credits: 3
Current relevant issues impacting dental hygiene practice are discussed. Dental practice economics, communicating and management in a diverse society are included. Also included in this course is the study of jurisprudence as it relates to the practice of dental hygiene.

DENT-HYG 4240 Ethics In Professional Practice Credit: 1
Study of ethics and ethical issue related to the practice of dental hygiene within a diverse society. Includes application of ethical principles to real-life situations.

DENT-HYG 4260 Senior Seminar Credits: 2
This course serves as a means of synthesizing information from all courses in the dental hygiene curriculum and applying content to patient cases and practice management issues. Case-based learning (CBL) will be utilized to review significant content areas as well as to introduce subjects not previously encountered during previous clinical experiences. Case based/problems based learning (PBL) with faculty facilitation will assist students in managing patient cases. This course is also designed to assist in preparing senior dental hygiene students for the written and clinical examinations required for licensure.

DENT-HYG 4260C Dental Hygiene Clinic IV Credits: 4
The student will have the opportunity to reach competency in all clinical skills. Emphasis will be placed on decision-making, problem-solving, critical thinking, appointment and time management. The course will focus on comprehensive dental hygiene care to a diverse population.

DENT-HYG 4320 Special Patient Care Practicum Credits: 2-4
Through outside agency affiliation, students will have the opportunity of applying the course content from Principles of Public Health, Dental Health Education and DHE-Practicum. Sites for participation include hospitals, nursing homes, and residential and day activity centers for developmentally disabled.

DENT-HYG 4340 Community Dentistry Practicum Credits: 2-4
The community dentistry practicum provides the student with an opportunity for personal exploration of the many settings of community dentistry. These experiences may lead the students into clinical activities or design and implementation of dental health educational programs. The student will have the opportunity to work with various community health professionals in the Kansas City area. The student will need reliable transportation and should expect some experiences to require travel. Possibilities for practicum experiences are broad and will be defined after an initial assessment of the student's interest and goals. An individual learning contract will be written following the assessment. The student will be required to meet as a group periodically throughout the semester.

DENT-HYG 4350 Periodontal Therapy Practicum Credits: 1-4
This course is designed for the dental hygiene student who desires increased experience with periodontal skills. The course involves practical experience in the graduate periodontics clinic working with a periodontology resident. Two clinic sessions per week; one seminar scheduled weekly.

DENT-HYG 4360 Practice Management Practicum Credits: 3
Current relevant issues impacting dental hygiene practice are discussed. Dental practices, economics, communication and management are included. Practical application of course would include the development of a dental office operating manual.

DENT-HYG 4380 Research Practicum Credits: 2-4
This course provides an opportunity to apply the content in the previous course Introduction to Research Design. The protocol identified may be a basic science, clinical or community dental hygiene problem. The field experience may deal with a basic or applied, descriptive or explanatory research question.

DENT-HYG 4500 Seminar on Issues in Higher Education for Health Professionals Credits: 2-4
This course is designed to introduce the student to matters encountered in higher education, specific to dental hygiene education. Weekly readings, assignments, and sessions will familiarize the student in topics such as: writing resumes and cvs, case-based learning, accreditation, promotion and tenure, and assessment.

DENT-HYG 4600 Evidence Based Decision Making in the Clinical Practice of Dental Hygiene Credits: 2-4
This course is designed for the graduate and degree completion dental hygiene student and expand on the student's basic knowledge of the dental hygiene process of care. Utilization of evidence based decision making skills will be explored in an effort to incorporate current scientific literature, personal clinical experience and patient preferences as it relates to the delivery of comprehensive patient care. Skills taught in this course will enhance background knowledge related to the dental hygiene process of care and help to foster an attitude of critical analysis and lifelong learning.

DENT-HYG 4620 Introduction to Educational Methodology Credits: 3
This course is designed to introduce the student to basic educational methodologies and to provide participants with a better understanding of the teaching/learning process. The course includes units on instructor/student relationships, educational approaches, educational ethics and professionalism, the scholarship of teaching and learning and curriculum theory.

DENT-HYG 4625 Dental Hygiene Administration Credits: 2
This course is designed for the post-certificate dental hygiene student. Major topic areas include accreditation of dental hygiene programs, the impact of National and State Board examinations on curriculum planning, selective admissions policies and procedures, faculty evaluation, promotion and tenure and students' rights.
DENT-HYG 4630 Practicum in Dental Hygiene Administration Credits: 2-4
Under the supervision of the Director of Dental Hygiene, the student will gain actual experiences in the daily administration of a dental hygiene program. The student may contract for responsibilities such as admissions, budget preparations, course scheduling, report writing and student academic counseling.

DENT-HYG 4635 Practicum In Clinical Supervision Credits: 2-4
Under the supervision and permission of the Dental Hygiene Clinical Supervisor, the student will gain actual experience in the duties involved in coordinating the clinical education of a dental hygiene student. The student may contract for responsibilities such as, coordinating mock board examinations, maintaining student clinical records, developing faculty and student clinic schedules and report writing.

DENT-HYG 4640 Student Teaching and Conference I Credits: 2-4
Under the direction of a supervising professor, the student may select teaching experience in the classroom areas of their choice. The student develops behavioral course objectives, comprehensive lesson plans, test and examination items, classroom presentations, and prepares student evaluations in the selected classroom teaching areas. The student may select teaching assignments in one of the developed externship student teaching programs. Conferences will be held in conjunction with the course.

**Prerequisites:** DENT-HYG 4040, DENT-HYG 4620.

DENT-HYG 4650 Student Teaching and Conference II Credits: 2-4
The student will continue to develop teaching skills in laboratory and/or classroom areas as selected by the student under the direction of a supervising professor.

**Prerequisites:** DENT-HYG 4640.

DENT-HYG 4660 Independent Study in Dental Hygiene Credits: 1-4
This course is designed for the dental hygiene student who desires independent study of a particular problem or area of interest in dental hygiene education.

DENT-HYG 4680 Dental Hygiene Clinical Instruction I Credits: 2-4
Continued development of competency as a clinical instructor under the supervision of the dental hygiene faculty. Requires a half-day in clinic student instructor.

**Prerequisites:** DENT-HYG 4640.

DENT-HYG 4685 Dental Hygiene Clinical Instruction II Credits: 1-4
A continuation of DENT-HYG 4680. Under the supervision of the dental hygiene faculty, students may continue to develop skills as a dental hygiene clinical instructor.

**Prerequisites:** DENT-HYG 4680.

DENT-HYG 5500 Introduction to Educational Methodology Credits: 3
This course is designed to introduce the student to basic educational methodologies and to provide participants with a better understanding of the teaching/learning process. The course includes units on instructor/student relationships, educational approaches, educational ethics and professionalism, the scholarship of teaching and learning and curriculum theory.

DENT-HYG 5502 Foundations of Teaching Credits: 2
This course provides an introduction to the evidence-based best practices in course design for students who are preparing for a career in teaching and for those who simply wish to learn more about classroom instruction. Students will explore outcomes centered course design. Content application activities include syllabus development, writing objectives, constructing lesson plans, preparing presentations, developing course management sites, and test development.

**Prerequisites:** Must be a student enrolled in the MSDHE program.

DENT-HYG 5510 Student Teaching and Conference I Credits: 2-4
Student teaching experience in classroom areas as selected by the student under the direction of a supervising professor. The student develops behavioral course objectives, test and examination items, classroom presentations, and prepares student evaluations in the selected classroom teaching areas. The student may select teaching assignments in one of the developed externship student teaching programs. Conferences will be held in conjunction with the course.

**Prerequisites:** DENT-HYG 4040, DENT-HYG 5500.

DENT-HYG 5512 Student Teaching and Conference II Credits: 2-4
This course is designed to provide the graduate dental hygiene student with additional experience in classroom teaching. Student teaching experiences will be selected by the student under the direction of and in conference with a supervising professor.

DENT-HYG 5516 Special Issues in Higher Education for Health Professional Credits: 3
This course is designed to introduce the student to matters encountered in higher education - specific to dental hygiene education. Weekly readings, assignments, and sessions will familiarize the student in topics such as: writing resumes and cvs, motivational interviewing, accreditation, promotion and tenure, and social media.
DENT-HYG 5530 Clinical Instruction and Conference I Credits: 2-4
Students will actively participate in clinical instruction under the supervision of a dental hygiene faculty member. Topics relative to clinical teaching will be discussed in weekly seminars. Students will be encouraged to apply knowledge gained in DENT-HYG 4620 and DENT-HYG 5500 during clinical instructional experiences. Additionally the student must participate in at least 7 day of clinic per week to equal another credit hour of course work.

DENT-HYG 5532 Clinical Instruction and Conference II Credits: 2-4
This course is a continuation of DENT-HYG 5530. Under the supervision of the dental hygiene faculty, the student will continue to develop skills as a dental hygiene clinical instructor.
Prerequisites: DENT-HYG 5530.

DENT-HYG 5553 Evidence Based Decision Making in the Clinical Practice of Dental Hygiene Credits: 2-4
This course is designed for the graduate and degree completion dental hygiene student and will expand on the student's basic knowledge of the dental hygiene process of care. Utilization of evidence based decision making skills will be explored in an effort to incorporate current scientific literature, personal clinical experience and patient preferences as they relate to the delivery of comprehensive patient care. Skills taught in this course will enhance background knowledge related to the dental hygiene process of care and help to foster an attitude of critical analysis and life-long learning.

DENT-HYG 5560 Practicum in Clinical Supervision and Management Credits: 2-4
Practical experience in functioning as a Clinic Supervisor. Clinical managerial projects will be assigned according to students' interests and goals by agreement between student and instructor.

DENT-HYG 5565 Advanced Special Patient Care Practicum I Credits: 1-4
This course is designed to familiarize the student with general principles of cancer therapy and the role of the dental team in the multidisciplinary care of patients undergoing oncology treatments. Special emphasis will be placed on the treatment of the patient with head and neck cancer, and preventive and palliative dental interventions for control of the oral complications associated with all cancer therapies. Cancer prevention issues and the psychosocial and economic impact of cancer diagnosis will also be discussed.

DENT-HYG 5566 Advanced Special Patient Care Practicum II Credits: 1-4
This course will provide the graduate dental hygiene student with the opportunity to explore the relationship of an oncology dental program to medical health care facilities.

DENT-HYG 5570 Administrative Practicum Credits: 1-4
Practical experience in administration. The student selects areas of responsibility based on their goals and interests in administration. Possible areas of involvement are: recruitment, admissions, curriculum and course development, course scheduling, grant and report writing and student advising.

DENT-HYG 5575 Practicing in the Dental Hygiene Public Safety Net Credits: 3
This course is designed to increase the knowledge base of practicing dental hygienists in the area of public health dentistry, including health promotion, disease prevention, current legislation, evidence based treatment, school based portable dentistry, coalitions, treating the geriatric and disabled populations, as well as how to write and secure grant monies. In addition, the course will expose dental hygienists to a variety of public health settings in which they can practice with an Extended Care Permit (in KS) or the Dental Hygiene Designation (in MO). Information on how to apply for the permits will also be shared.

DENT-HYG 5576 Extended Care Permit (ECP) III Training Course Credits: 2
The Extended Care Permit (ECP) III Training Course is designed to prepare a registered dental hygienist to apply for the Kansas Extended Care Permit III. Hygienists with the ECP III certificate can practice under the sponsorship of a dentist in a variety of public health settings including schools and long term care facilities in Kansas.
Prerequisites: Must be a student enrolled in the MSDHE program.

DENT-HYG 5585 Portfolio Capstone Course Credit: 1
This capstone course serves as the culminating experience for students in the MS in Dental Hygiene Education (MS in DHE). During the Capstone course, students will create a coherent and cohesive body of work reflective of attainment of the competencies for their respective programs - in the form of an e-Portfolio. This course should be taken in the semester of anticipated completion/graduation of the MS in DHE program.

DENT-HYG 5590 Independent Study Credits: 1-4
Independent study of a particular topic or area of interest to the student in dental hygiene/dentistry and/or higher education.

DENT-HYG 5595 Writing in Science Credits: 1-2
This seminar course is designed to provide advanced education students in the health professions the skills necessary to write and communicate in science. Course activities and topics include: critical analysis of the literature, literature summary tables, structure and organization of documents, style and usage, drafting, revising and finishing. Participants will practice the craft of scientific writing not only as the writer but also as the reader providing correction and reorganization where appropriate. While this course examines many writing tasks, exercise culminate with the development of a research protocol or scientific article.

DENT-HYG 5599 Research And Thesis Credits: 1-6
This course is designed to support the research process from protocol development through data collection and report of results. Research committee chairperson typically serves as the course director.
Bachelor of Science in Dental Hygiene

Dental School (http://www.umkc.edu/virtualtour/sod.asp), Room 415
(816) 235-2050

About the Undergraduate Dental Hygiene Program

Dental hygiene is a rapidly growing and increasingly dynamic allied health profession for qualified persons who wish to participate as active members of a health field. Service to mankind is the primary purpose of health professions. The dental hygienist with a baccalaureate degree accomplishes this objective through a variety of challenging and rewarding opportunities.

There is informal evidence that a nine-month dental hygiene program existed at UMKC (then the Kansas City Western Dental College) in 1922-23, as did a one-year program during the '30s. However, concrete documentation indicates that the official program began in 1952.

The program in dental hygiene is accredited by the Commission on Dental Accreditation, a specialized accrediting body recognized by the Council on Post-Secondary Accreditation and the U.S. Department of Education.

The student at UMKC can earn a bachelor of science degree in dental hygiene in two ways. The first alternative offers an opportunity for the student who has completed two academic years of liberal arts pre-requisites at any accredited community/junior college, college or university to matriculate into the entry level clinical dental hygiene program. The second alternative provides for the licensed dental hygienist with a certificate or associate degree an opportunity to earn a baccalaureate degree (degree completion).
Academic Standards

Professional education in the health sciences manifests characteristics that are distinct from other advanced educational programs. Academic standards of the School of Dentistry are established to ensure that the public, whose health will be entrusted to graduates of the school’s programs, will receive care of professionally acceptable quality and that the care will be provided in an ethical and professional manner. The School’s Academic Requirements are described in the following two sets of standards, one for scholarly achievement and one for professional conduct, located in the Student Handbook.

Attendance

Regular attendance at all classes and clinical sessions is required during the professional program. The student is responsible for familiarization with all classroom and clinical requirements and assignments.

Scholastic Honesty

The Division of Dental Hygiene assumes all students are enrolled to learn. Any cheating is contradictory to the purposes of students and this institution. Any dishonesty detected in a course (including during examinations or in submitting plagiarized material) may result in an F grade in the course, and may be cause for dismissal or suspension from the Division of Dental Hygiene.

Repeated Courses

A dental hygiene student who wishes to repeat a course must submit a course repeat form to the UMKC Registration Office no later than the end of the fourth week of the term if that repeat is to be included in GPA calculations. Students who are repeating a course must have prior approval of the director of the Division of Dental Hygiene.

Advanced Placement

The general examination offered by the College Level Examination Program (CLEP) will not be accepted for degree credit. However, credit received through specific or subject examinations will apply toward a bachelor of science degree in dental hygiene. Although hours of credit may be received in natural sciences, it is preferred that an applicant to the dental hygiene program complete the specific science prerequisites.

For more information regarding admission to either the clinical entry level or degree completion program in dental hygiene, contact the Division of Dental Hygiene.
Admission Requirements

This clinical entry level program is for the individual who wants to go into the field of dental hygiene. The primary goals of the basic preparation bachelor of science degree program in dental hygiene are to prepare dental hygienists to perform competently in clinical practice and to perform competently in clinical practice and/ or community oral health program planning, clinical teaching, special patient care, practice management and research.

Admission to the Clinical Entry Level Program

Admission is on a selective basis and requires more than simply meeting certain course or GPA requirements. Factors considered in the selection process are the candidates' academic credentials, letters of evaluation, a personal interview, motivation and all other information submitted by the candidates. Formal applications for admission to the dental hygiene program must be submitted no later than December 1st. Classes formally begin each year at the end of August. Minimum requirements and credentials for application are all of the following:

1. Graduation from an accredited high school or its equivalent.
2. Satisfactory completion of approximately two academic years or 60 semester hours of college. (The 60 semester hours must satisfy the general education requirements, which are specified later in this section. All general education requirements must be completed prior to entrance into the dental hygiene program.)
3. Application to UMKC.
4. Supplemental application for admission to the Division of Dental Hygiene.
5. College transcripts of all college coursework.
6. A cumulative college GPA of at least 2.5.
7. A college science GPA of at least 2.5.
8. Three evaluation and reference forms.
9. Personal interview with at least two members of the Dental Hygiene Admissions Committee (interviews will be scheduled after February).
10. For international applicants, a satisfactory TOEFL score (at least 550 on the paper test or 213 on the computer-based version).

Notification of Admission

Applications for admission are reviewed by the School of Dentistry Dental Hygiene Student Admissions Committee. After a decision is reached on an application, notification of acceptance is made by mail. The applicant has 30 days from the date of the acceptance letter to make a required non-refundable $100 deposit. This deposit is applied to enrollment fees.

Several applicants are placed on an alternates list. In the event that a position becomes available, an applicant from this list is chosen to fill the vacancy. Alternates may be accepted through the first week of the program.
Admission to the Degree Completion Program

This program is designed for students who have completed an accredited dental hygiene program at another educational institution and desire to continue their education toward a baccalaureate degree.

Formal applications for admission to this program must be submitted by Feb. 1 for the class beginning in August of each year. The program may be completed on a full- or part-time basis. Basic requirements and credentials for admission are all of the following:

1. Graduation from an accredited dental hygiene program.
2. Results and successful completion of the National Board Examination for dental hygiene.
3. High school transcripts.
5. Satisfactory grade point average.
6. Application for admission to UMKC.
7. Supplemental application for admission to the Division of Dental Hygiene.
8. Three reference forms (including one from the director of the accredited dental hygiene program attended).
9. An interview with the admissions committee
10. An admissions narrative
Bachelor of Science in Dental Hygiene: Program Requirements

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

The Division of Dental Hygiene at the UMKC School of Dentistry offers two routes to a Bachelor of Science degree in Dental Hygiene: The B.S. Clinical Entry-Level program and the RDH to BSDH B.S. Degree Completion program. The following Clinical Entry Level program competencies are deemed by the faculty in the Division of Dental Hygiene as the skills, knowledge and values every entry level graduate must be able to consistently and independently demonstrate to qualify for graduation. The School of Dentistry, Division of Dental Hygiene assessment plan calls for theses competencies to be assessed throughout the classroom, laboratory and patient care experiences during the student’s tenure in the program in the form of papers, case study presentations, student portfolios, clinical competency examinations, community assessment and other appropriate assessment measures.

The UMKC dental hygiene graduate will be competent in:

- Core competence for ethical practice, adherence to regulations, evidence-based decision making, and self assessment.
- Assessing persons of all ages and stages of life in a diverse society.
- Treatment care planning and case presentation for persons of all ages/stages of life in a diverse society.
- Health education strategies for the prevention of disease and the promotion of health.
- Provision of preventive and therapeutic dental hygiene services for persons of all ages/stages of life.
- Health and safety provisions
- Management procedures (emergency management, communication, etc.)
- Community oral health strategies in a culturally diverse society.
- Utilization of information technology to assist in evidence-based decision making.

Program Requirements

The dental hygiene program begins in August of each year and continues for two academic years with a summer session between years. For more information, contact the program director.

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Anchor II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Anchor III (Satisfied in requirements below as ANCH 314)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
</tbody>
</table>
Focus A

Focus B (Satisfied in program requirements below)

Focus C (Satisfied in program requirements below)

Focus Elective (Satisfied in program requirements below)

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Choose one of the following:</td>
<td></td>
</tr>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) ¹</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits

¹ Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

Program Prerequisites

A minimum grade of 'C' must be earned in all prerequisite science coursework.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 102</td>
<td>Biology and Living</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 108</td>
<td>General Biology I</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 109</td>
<td>General Biology II</td>
<td></td>
</tr>
<tr>
<td>CHEM 211</td>
<td>General Chemistry I (Focus B) ¹</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 211L</td>
<td>Experimental General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>COMM-ST 110</td>
<td>Fundamentals Of Effective Speaking And Listening</td>
<td>3</td>
</tr>
<tr>
<td>or COMM-ST 140</td>
<td>Principles Of Communication</td>
<td></td>
</tr>
<tr>
<td>or CPCE 230</td>
<td>Effective Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>LS-ANATO 218</td>
<td>Introductory Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>LS-MCRB 112</td>
<td>Microbiology and Living (or upper division Microbiology course)</td>
<td>3</td>
</tr>
<tr>
<td>LS-PHYS 217</td>
<td>Human Physiology (Focus B) ¹</td>
<td>3</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (Focus B; or any 200-level or above MATH/STAT course) ¹</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 210</td>
<td>General Psychology (Focus C) ¹</td>
<td>3</td>
</tr>
</tbody>
</table>
SOCIOL 101  Sociology: An Introduction (Focus C)  

Total Credits  29  

1  Course may satisfy both the UMKC General Education Core and Degree Specific Requirements.  

### Professional Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANCH 314</td>
<td>Interdisciplinary Community Oral Health Field Experiences</td>
<td>3</td>
</tr>
<tr>
<td>BMS 93065</td>
<td>Anatomy of the Head &amp; Neck</td>
<td>2</td>
</tr>
<tr>
<td>DENT-HYG 3000</td>
<td>Dental Morphology And Occlusion</td>
<td>2</td>
</tr>
<tr>
<td>DENT-HYG 3020</td>
<td>Dental Radiology</td>
<td>2</td>
</tr>
<tr>
<td>DENT-HYG 3030</td>
<td>Introduction to Histopathology of Oral Tissues</td>
<td>2</td>
</tr>
<tr>
<td>DENT-HYG 3080</td>
<td>Introduction to the Preventive Practice of Dental Hygiene</td>
<td>4</td>
</tr>
<tr>
<td>DENT-HYG 3080L</td>
<td>Preclinical Dental Hygiene</td>
<td>2</td>
</tr>
<tr>
<td>DENT-HYG 3200</td>
<td>General and Oral Pathology</td>
<td>2</td>
</tr>
<tr>
<td>DENT-HYG 3210</td>
<td>Applied Nutrition and Biochemistry</td>
<td>2</td>
</tr>
<tr>
<td>DENT-HYG 3220</td>
<td>Dental Biomaterials</td>
<td>2</td>
</tr>
<tr>
<td>DENT-HYG 3260</td>
<td>Principles Of Periodontics</td>
<td>2</td>
</tr>
<tr>
<td>DENT-HYG 3280C</td>
<td>Dental Hygiene Clinic I</td>
<td>3</td>
</tr>
<tr>
<td>DENT-HYG 3285</td>
<td>Seminar In Dental Hygiene I</td>
<td>2</td>
</tr>
<tr>
<td>DENT-HYG 3300</td>
<td>Radiographic Interpretation</td>
<td>0.5</td>
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<tr>
<td>DENT-HYG 3320</td>
<td>Oral Health Behavior Change</td>
<td>3</td>
</tr>
<tr>
<td>DENT-HYG 3340</td>
<td>Principles Of Public Health</td>
<td>2</td>
</tr>
<tr>
<td>DENT-HYG 4020</td>
<td>Local Anesthesia And Pain Control</td>
<td>3</td>
</tr>
<tr>
<td>DENT-HYG 4050</td>
<td>Periodontics II</td>
<td>1</td>
</tr>
<tr>
<td>DENT-HYG 4060C</td>
<td>Dental Hygiene Clinic II</td>
<td>2</td>
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<tr>
<td>DENT-HYG 4065</td>
<td>Seminar in Dental Hygiene II</td>
<td>1</td>
</tr>
<tr>
<td>DENT-HYG 4080</td>
<td>Introduction to Research and Evidence Based Decision Making</td>
<td>2</td>
</tr>
<tr>
<td>DENT-HYG 4100</td>
<td>Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>DENT-HYG 4120C</td>
<td>Dental Hygiene Clinic III</td>
<td>4</td>
</tr>
<tr>
<td>DENT-HYG 4210</td>
<td>Practice Management</td>
<td>3</td>
</tr>
<tr>
<td>DENT-HYG 4240</td>
<td>Ethics In Professional Practice</td>
<td>1</td>
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<tr>
<td>DENT-HYG 4260</td>
<td>Senior Seminar</td>
<td>2</td>
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<tr>
<td>DENT-HYG 4260C</td>
<td>Dental Hygiene Clinic IV</td>
<td>4</td>
</tr>
<tr>
<td>LS-PHYS 3070</td>
<td>Oral Physiology</td>
<td>3</td>
</tr>
<tr>
<td>DENT-HYG Elective (choose one of the following)</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

- DENT-HYG 4320  Special Patient Care Practicum  
- DENT-HYG 4340  Community Dentistry Practicum  
- DENT-HYG 4350  Periodontal Therapy Practicum  
- DENT-HYG 4380  Research Practicum  
- DENT-HYG 4630  Practicum in Dental Hygiene Administration  
- DENT-HYG 4660  Independent Study in Dental Hygiene  

Total Credits  66.5  

### General Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>8</td>
</tr>
</tbody>
</table>

GPA Minimum: 2.5  

Total credit hours: 124.5
Tools for Planning and Filling Academic Requirements

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Degree Completion Program Requirements

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

• Demonstrate effective communication and interpersonal skills allowing them to communicate with diverse individuals and groups.
• Demonstrate effective management of information technology.
• Utilize critical thinking and problem-solving skills to facilitate decision-making.
• Demonstrate the ability to locate, evaluate, organize and use research materials from a broad range of sources to support the use of scholarly inquiry in the dental hygiene process of care.
• Assume responsibility for professional actions and care based on ethical and professional behavior, accepted scientific theories and accepted standards of care.
• Demonstrate the ability to manage themselves and others and work as a team member.

The competencies above have been adopted by the faculty to assure our RDH to BSDH graduates are adequately prepared to succeed in the dynamic job market of their chosen area of expertise. The assessment plan provides direct and indirect measures of these competencies through multiple measures.

Students must complete 30 credit hours in residence and have a minimum of 124 semester credit hours to earn a baccalaureate degree in dental hygiene. Students must also complete 36 credit hours of 300/400 level coursework to earn a bachelors degree. Electives may be taken in the School of Dentistry, College of Arts and Sciences, School of Education or Henry W. Bloch School of Business and Public Administration. The particular choice of study will be determined by each student in consultation with the director of the degree completion program.

All students enrolled in the degree completion program must complete the general education requirements of the Division of Dental Hygiene prior to completion of the baccalaureate degree. Courses that the student has not completed will be included in the individual program of study for that student.

An individual program of study will be developed for each student depending on the number of college hours completed previously.

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td>1,2</td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td>1,2</td>
<td>3</td>
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<tr>
<td>Anchor III</td>
<td>1,2</td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
</tbody>
</table>
Focus A ^1
Focus B ^1
Focus C ^1
Focus Elective ^1

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits

1 Visit the UMKC General Education Core section of the catalog for available course options.

2 Six credit hours of excess Focus coursework transferred from another institution, with a grade of C or better, may satisfy each Anchor course.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) ^1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) ^1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) ^1</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) ^1</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

Program Prerequisites

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or any 200-level or above MATH/STAT course; Focus B) ^1</td>
<td>3</td>
</tr>
</tbody>
</table>

Public Speaking:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM-ST 110</td>
<td>Fundamentals Of Effective Speaking And Listening</td>
<td>3</td>
</tr>
<tr>
<td>or COMM-ST 140</td>
<td>Principles Of Communication</td>
<td></td>
</tr>
<tr>
<td>or CPCE 230</td>
<td>Effective Interpersonal Communication</td>
<td></td>
</tr>
</tbody>
</table>

Social and Behavioral Sciences:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCIOL 101</td>
<td>Sociology: An Introduction (Focus C) ^1</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 210</td>
<td>General Psychology (Focus C) ^1</td>
<td>3</td>
</tr>
</tbody>
</table>

Biological and Physical Sciences:

Please select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 102</td>
<td>Biology and Living</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 108</td>
<td>General Biology I</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 109</td>
<td>General Biology II</td>
<td></td>
</tr>
<tr>
<td>CHEM 211</td>
<td>General Chemistry I (Focus B) ^1</td>
<td>4</td>
</tr>
<tr>
<td>Code</td>
<td>Title</td>
<td>Credits</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>CHEM 211L</td>
<td>Experimental General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>LS-MCRB 113</td>
<td>Introductory Microbiology (or upper division Microbiology course)</td>
<td>3</td>
</tr>
<tr>
<td>LS-ANATO 218</td>
<td>Introductory Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>LS-PHYS 217</td>
<td>Human Physiology (Focus B) (^1)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>29</strong></td>
</tr>
</tbody>
</table>

\(^1\) Course may satisfy both the UMKC General Education Core and Degree Specific Requirements.

### Professional Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENT-HYG 4040</td>
<td>Foundations of Teaching</td>
<td>2</td>
</tr>
<tr>
<td>DENT-HYG 4110</td>
<td>Introduction to Research Methodologies</td>
<td>2</td>
</tr>
<tr>
<td>DENT-HYG 4130</td>
<td>Introduction to Instructional Technologies and Online Learning</td>
<td>1</td>
</tr>
<tr>
<td>DENT-HYG 4150</td>
<td>Portfolio Capstone</td>
<td>1</td>
</tr>
<tr>
<td>DENT-HYG 4500</td>
<td>Seminar on Issues in Higher Education for Health Professionals</td>
<td>3</td>
</tr>
<tr>
<td>DENT-HYG 4600</td>
<td>Evidence Based Decision Making in the Clinical Practice of Dental Hygiene</td>
<td>2</td>
</tr>
<tr>
<td>DENT-HYG 4620</td>
<td>Introduction to Educational Methodology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

**GPA Minimum: 2.5**

**Total Credit Hours: 124**

### Tools for Planning and Fulfilling Academic Requirements

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major “fit”.

In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Expenses and Financial Assistance

Expenses (Basic Preparation)

Approximate expenses for the basic preparation dental hygiene program are listed below. These do not include room and board, expenses for personal items or educational fees.

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrument rental and supplies (entire program)</td>
<td>$4,075</td>
</tr>
<tr>
<td>Textbooks (entire program)</td>
<td>$2,663</td>
</tr>
<tr>
<td>Uniforms, lab coats, etc. (entire program)</td>
<td>$600</td>
</tr>
<tr>
<td>National, regional and state licensure fees</td>
<td>$1,500</td>
</tr>
<tr>
<td>Professional association fee</td>
<td>$90</td>
</tr>
</tbody>
</table>

Note: Fees are subject to change without notice. An advance deposit of $100 is required on admission to the program. This payment shall be credited to the student's educational fee upon enrollment. The fee is non-refundable except by special order of the dean of the School of Dentistry and as approved by the director of admissions.

Financial Assistance

In addition to the University's financial aid services, the UMKC Dental Hygienists' Alumni Association (UMKC DHAA) has several scholarship funds and grants for dental hygiene students who are in need of financial assistance and who qualify academically. For more information, see Scholarships and Awards.
Job Opportunities

The major responsibilities of the dental hygienist are preventive in nature. In the private dental office, the dental hygienist may be responsible for providing patient education, exposing and processing dental radiographs, conducting head and neck examinations, as well as providing a thorough oral prophylaxis, non-surgical periodontal therapy, local anesthesia, diet analysis and other services as delegated by the licensed dentist. In some large offices the dental hygienist may serve as a manager of office procedures. Dental hygiene services vary from state to state according to the laws that govern the practice of dental hygiene.

In public health and community agencies, the dental hygienist is concerned with the oral health of the community being served. Major responsibilities may be assessing the oral health of a given population or developing and implementing a dental health program. In hospitals and nursing homes, the dental hygienist may function as a health educator, a clinician or a resource person. In other instances, hygienists are employed for clinical and descriptive research projects.

Although the majority of dental hygiene graduates are involved in private practice, the following practice settings may also be available:

- Federal, state and local health departments.
- Hospitals and nursing homes.
- School districts.
- Health maintenance organizations.
- Educational programs for dental, dental hygiene and dental assisting students.
- Private and public centers for pediatric, geriatric and other special needs groups.

Graduates can take advantage of the Dental School's job placement assistance service. The School of Dentistry's library maintains an extensive database of job opportunities in several states. Faculty members are available for job-placement counseling to assist graduates with placement decisions.
Licensure Examinations

To practice dental hygiene legally, the student must take and successfully pass a computer-based examination, the National Board Dental Hygiene Examination. This examination is administered to all dental hygiene students in the country. The student also must successfully complete a clinical examination and an examination on the dental laws of the desired state of licensure. After written and clinical examinations have been completed, the graduate may apply for licensure in any state. Additional information regarding these examinations and the licensure process is given during the dental hygiene program.
Professional Associations

The School of Dentistry encourages students to participate in professional association activities. Dental hygiene students are encouraged to join and participate actively in the Student American Dental Hygienists' Association, the UMKC Dental Hygienists' Alumni Association and the American Dental Education Association. Through participation in these associations, students can network with and become familiar with the professional opportunities and activities of area dental health professionals.
Scholarships and Awards

In addition to the University and federal financial aid opportunities, the Division of Dental Hygiene has numerous scholarship sources available to dental hygiene students. Students must meet financial and academic qualifications. Contact the division for more information. The Free Application for Student Aid (FAFSA) is required for application for Division scholarships. The Division will provide scholarship information to admitted and enrolled students.

During the last semester of the program, dental hygiene students who have distinguished themselves are eligible to be selected from the graduating class to become members of Sigma Phi Alpha, a national dental hygiene honor society. Students who receive this honor exhibit outstanding character and leadership during the professional program.

The Greater Kansas City Dental Hygienists' Association sponsors a Community Service Award; the Missouri Dental Hygienists' Association sponsors the Outstanding Dental Hygiene Graduate Award; and the UMKC Dental Hygienists' Alumni Association sponsors the Outstanding Clinician Award. These awards are presented annually to graduating seniors.
Master of Science: Dental Hygiene Education

Director:
Tanya V. Mitchell, RDH, MS

About the Program
The Master of Science Degree program in Dental Hygiene Education at the University of Missouri - Kansas City (UMKC) prepares students for careers in dental hygiene education. The 36 credit hour graduate program and core curriculum is offered through a combination of online and onsite teaching and learning modalities. Out of state students who complete coursework on a part-time basis are eligible for in-state tuition. To be eligible for this, the student must enroll in no more than 6 credit hours in the fall and spring semesters and no more than 3 credit hours in the summer.

The curriculum provides academic experiences based on the career goals and interest of the graduate student. Although the curriculum is focused on preparing the student for a career in dental hygiene education, elective courses may be taken through a personalized approach – pursuing excellence together.

The graduate program has a thesis or non-thesis option. The completion of a thesis or non-thesis research project (manuscript ready for publication) is required as part of the graduate student’s academic program. The core curriculum is completed online. Full time students are required to attend a minimum of two academic years.

Requirements for Admission

- Requirements for Admission (p. 977)
- Tuition and Fees Schedule
- Scholarships
- Program Goals (p. 977)
- Mission Statement (p. 978)
- Vision Statement (p. 978)
- Program and Graduation Requirements
- Other Requirements (p. 979)

Requirements for Admission
Graduation from an accredited school or program of dental hygiene, a baccalaureate degree from an accredited college or university, and a minimum 3.0 undergraduate GPA are required. The deadline for application is Feb. 1 for the class beginning the following summer semester. An interview is a required component of the admissions process. Enrollment is limited.

Questions about this program may be answered by contacting the program director’s office at (816) 235-2049 or villalpandot@umkc.edu.

A check list for applying to the program can be found here (https://dentistry.umkc.edu/academics/master-of-science-dental-hygiene-education/admission-criteria).

Request completion of three (3) reference forms, one of which must be completed by the Director of the Dental Hygiene program from which you graduated. Have them sent directly to: Director, Graduate Dental Hygiene Education; UMKC School of Dentistry; 650 East 25th Street; Kansas City, MO 64108. All application material must be received in the division of dental hygiene office by the deadline of February 1.

Tuition and Fees Schedule
Master of Science Degree Program in Dental Hygiene Education


Program Goals

Career Opportunities
Graduates will assume roles in a variety of employment opportunities including education, research, and administration.

Research
Graduates will develop the foundational skills necessary to contribute to the body of knowledge in dental hygiene research.

Lifelong Learning
Graduates will demonstrate the skills of reflective thinking, problem-solving, scholarly inquiry, and evidence-based decision making in an effort to promote lifetime learning.
Vision Statement
The UMKC School of Dentistry Graduate Dental Hygiene Program will serve as a model dental hygiene graduate program that increases the education of the dental hygienist unrelated to geographic location.

Mission Statement
The UMKC School of Dentistry Graduate Dental Hygiene Program provides a comprehensive education of both theory and practical applications and prepares the dental hygienist to assume a variety of employment opportunities where leadership in advanced communication skills, critical thinking, problem-solving, evidence-based decision making, and lifelong learning are needed.

Program and Graduation Requirements

Student Learning Outcomes/Graduate DH Core Competencies
The Graduate Dental Hygiene Program at the University of Missouri – Kansas City School of Dentistry builds upon the foundation of the baccalaureate degree dental hygienist. The program provides a variety of coursework to ensure the framework necessary to obtain employment in education, research, or administration. Upon completion of the 36 credit hours necessary for graduation, the student will be able to do the following:

1. Our graduates will produce original and scholarly research projects
   - Apply the research process to an identified problem using the National Dental Hygiene Research Agenda as a guide.
   - Synthesize information from evidence-based literature to apply a research problem.
   - Apply the (scientific) research process to an identified problem.
   - Develop a research proposal, obtain IRB approval, grant monies if needed, and report findings in a manuscript format ready for submission to a peer-reviewed journal.
   - Discuss research findings with peers, faculty, and other allied health professionals.
   - Demonstrate effective and professional written, oral, and electronic communication skills.
   - Design and disseminate to other professionals appropriate to your area of research a scholarly presentation at a regional, state, or national conference with other health professionals.

2. Our graduates will utilize computer technology to advance teaching and education
   - Discuss different technologies used in classroom and online delivery modalities in dental hygiene education.
   - Design courses that use technology to reach individuals regardless of geographic location.
   - Create teaching opportunities that employ technology to engage student learning in the clinical and classroom setting.
   - Develop an electronic program portfolio.

3. Our graduates will be able to explain the relationship between higher education and oral health care policy (issues) in dental hygiene
   - Identify issues related to higher education policy and procedures.
   - Examine methods used to facilitate access to care and development of new workforce models’ impact on oral and overall health.
   - Recognize the impact of interacting with diverse communities and cultures to serve individuals of all backgrounds.
   - Evaluate the impact of legislation and policy on trends in oral health at the national, state, and local levels.

4. Our graduates will have the knowledge to demonstrate through behavior, high standards of ethics, integrity, and responsibilities in professional situations
   - Display the ability to self-assess in enhancing professional self-development.
   - Demonstrate a commitment to life-long learning in the profession of dental hygiene.
   - Recognize responsibility and accountability for actions in various roles of the dental hygienist.
   - Explain the obligation to be active in society to make changes in one’s health and welfare.
   - Foster high standards of personal and organizational integrity, honesty, and respect for people of all communities.
   - Exhibit knowledge of legal, ethical, and social issues related to developing technology and communication/social networks.

5. Our graduates will have the ability to plan and integrate new teaching and educational programs in dental hygiene
   - Demonstrate the process of program development including assessment, planning, implementation, and evaluation to accomplish program goals.
   - Be knowledgeable in the process of seeking funds for the implementation of new programs.
   - Articulate a plan for the development of new programs.
   - Use basic organizational, administrative and human relations skills in a group environment.

6. Our graduates will be leaders in their communities, organizations, institutions and work environments
   - Analyze interactions of human, social, and dental hygiene theories and how they affect individuals and professions.
   - Apply leadership skills when working with groups to attain personal and professional goals.
   - Support change and improvements in the profession of dental hygiene through service and affiliations with professional associations.
   - Successfully communicate to others with effective written, oral and electronic correspondence skills.
Core curriculum courses are taken in conjunction with students enrolled in the UMKC degree-completion program. In addition to a UMKC campus program orientation (usually in August), online students are required to attend class sessions on average an additional two times during the student’s program of study. More information on these campus visits can be discussed with the program director. Additional on-site campus visits for the graduate student are determined between the research committee chair and the student. The student is encouraged to attend another on-campus visit as their research project deems necessary.

### Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENT-HYG 4130</td>
<td>Introduction to Instructional Technologies and Online Learning</td>
<td>1</td>
</tr>
<tr>
<td>DENT-HYG 5502</td>
<td>Foundations of Teaching</td>
<td>2</td>
</tr>
<tr>
<td>DENT-HYG 5500</td>
<td>Introduction to Educational Methodology</td>
<td>3</td>
</tr>
<tr>
<td>DENT-HYG 5510</td>
<td>Student Teaching and Conference I</td>
<td>2-4</td>
</tr>
<tr>
<td>DENT-HYG 5516</td>
<td>Special Issues in Higher Education for Health Professional</td>
<td>3</td>
</tr>
<tr>
<td>DENT-HYG 5530</td>
<td>Clinical Instruction and Conference I</td>
<td>2-4</td>
</tr>
<tr>
<td>DENT-HYG 5553</td>
<td>Evidence Based Decision Making in the Clinical Practice of Dental Hygiene</td>
<td>2</td>
</tr>
<tr>
<td>DENT-HYG 5595</td>
<td>Writing in Science</td>
<td>2</td>
</tr>
<tr>
<td>DENT-HYG 5599</td>
<td>Research And Thesis</td>
<td>1-6</td>
</tr>
<tr>
<td>RES-ME 5700</td>
<td>Introduction To Research Methodology</td>
<td>3</td>
</tr>
<tr>
<td>RES-ME 5703</td>
<td>Thesis Writing</td>
<td>1</td>
</tr>
<tr>
<td>RES-ME 5704</td>
<td>Introduction to Biostatistics</td>
<td>3</td>
</tr>
<tr>
<td>DENT-HYG 5585</td>
<td>Portfolio Capstone Course</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credit Hours: 27-36

It is highly recommended that the student take the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENT-HYG 5512</td>
<td>Student Teaching and Conference II</td>
<td>2-4</td>
</tr>
<tr>
<td>DENT-HYG 5532</td>
<td>Clinical Instruction and Conference II</td>
<td>2-4</td>
</tr>
</tbody>
</table>

For students who do not reside in the Kansas City area (online students) some courses (DENT-HYG 5510 Student Teaching and Conference I and DENT-HYG 5530 Clinical Instruction and Conference I) require teaching (didactic or clinically) at a college/university setting other than UMKC. In those cases, an affiliation agreement is required. It is the student’s responsibility to get permission from the sponsoring institution to teach in their facility. Once the student has initiated contact, the UMKC program director will contact the program director of the sponsoring institution.

The total number of credit hours required for completion of the Master of Science Degree Program in Dental Hygiene Education is 36 credit hours for either the thesis or the non-thesis option.

### Graduation Requirements

1. A minimum of a 3.0 GPA.
2. Successful completion of 36 credit hours with a thesis or graduate research project option.
3. All other requirements for graduation as stated in the General Graduate Academic Regulations and Information section of the UMKC General Catalog. For more information, please visit www.umkc.edu/sgs (http://www.umkc.edu/sgs)
4. Design and disseminate to other professionals appropriate to your area of research a scholarly presentation at a regional, state, or national conference with other health professionals.
5. Successful completion of a portfolio as presented in DENT-HYG 5585. The final portfolio must be turned into the program director 6 weeks prior to the student’s anticipated graduation date.

### Other Requirements

Whenever the overall grade point average for UMKC courses taken for graduate credit by an advanced education or graduate student of any classification falls below 3.0 (B) the student’s status for the next term becomes: “On probation — See principal graduate advisor.” The principal graduate adviser will review the student’s progress and provide counsel, and the following conditions apply:

- An advanced education or graduate student on probation who is not restored to good academic standing by the end of two successive semesters will be declared ineligible to re-enroll.
- While on probation, an advanced education or graduate student must achieve a 3.0 term GPA in order to enroll for the ensuing term.
- An advanced education or graduate student on probation will not be restored to good standing until a cumulative graduate-credit GPA of at least 3.0 is achieved.
Provide students with a more insightful view of the role of the dental hygienist in the delivery of comprehensive patient care. Students and continued development of problem solving abilities and critical thinking skills as they relate to the provision of dental hygiene care. This course expands on theory and background presented in DENT-HYG 3080. Topics include expanding dental hygiene skills required for the care of patients and assignment of values, prioritize, and meet agreed upon goals. The format will include face-to-face lectures, online supplements, short labs, and group activities. Emphasis is placed on patient assessment and techniques of instrumentation for examination and dental hygiene treatment. After the student has mastered basic skills, he/she will begin to provide direct dental hygiene services. Lecture and clinical practice of dental radiographic procedures. Topics include radiation hygiene, taking and developing radiographs, processing and mounting films, and radiographic interpretation. Clinical experience is required throughout the remaining semesters. A comparison of the microscopic anatomy of healthy and diseased oral tissues. The major goal of this course is to integrate basic sciences (embryology, descriptive histology, and cell biology of oral tissues) with clinical sciences. The gap between the basic and clinical sciences is not always easy to bridge; this course is designed to bridge the “gap.” This course provides students with an introduction to oro-facial histology and embryology and pathology that may arise from the tissues of the head, neck, and oral cavity. Prerequisites: Dental hygiene student. This course will introduce theories and rationales for basic clinical dental hygiene care (infection control, oral examination and fundamentals of instrumentation) in diverse populations. Practical application of specific clinical skills will be introduced in the classroom and applied in the clinical setting. This course emphasizes the practical application of the fundamental concepts and principles of patient care in a diverse society discussed in DENT-HYG 3080. Emphasis is placed on patient assessment and techniques for examination and dental hygiene treatment. After the student has mastered basic skills, he/she will begin to provide direct dental hygiene services. An introduction to the principles of general pathology and organ system pathology including inflammation, immunity and diseases of immune origin, genetic diseases, neoplasia with emphasis on oral cancer, and diseases of selected organ systems including pulmonary, cardiovascular, hematopoietic, endocrine, skeletal, gastrointestinal, hepatic, pancreatic and other systems as time permits. This course introduces biochemistry and nutrition, encouraging identification of sources and application of specific nutrients for health. Contents familiarize students with roles of nutrition and places emphasis on the hygienist’s role as nutritional educator—utilizing skills of recognition, prevention and treatment of related disease(s) and support of good oral health. Topics build on previous knowledge of chemistry, biology and physiology in application to health, coupled with deficient/optimal nutrition. Students will utilize motivational interviewing pertaining to counseling to help patients assign values, prioritize, and meet agreed upon goals. The format will include face-to-face lectures, online supplements, short labs, and group assignments/presentations. Prerequisites: CHEM 211 and CHEM 211L; LS-PHYS 217. This course is designed to provide the dental hygiene student with a sound knowledge base in the science and manipulation of dental biomaterials. Through lectures and laboratory session, the student’s ability to make clinical judgments regarding the application of dental biomaterials and the ways in which materials react to the oral environment will be enhanced. This course in Periodontics will cover the biological and clinical aspects of periodontal health and pathology. An introduction to the supporting structures of the teeth will provide the foundation of understanding pathogenesis, histopathology and subsequent therapeutic treatment of periodontal diseases. The dental hygienist’s role in recognition, prevention and treatment of periodontal diseases and maintenance of periodontal health is examined. Students will further develop clinical skills and techniques learned in DENT-HYG 3080L and previous courses by providing services to patients. This course expands on theory and background presented in DENT-HYG 3080. Topics include expanding dental hygiene skills required for the care of patients and continued development of problem solving abilities and critical thinking skills as they relate to the provision of dental hygiene care. Provide students with a more insightful view of the role of the dental hygienist in the delivery of comprehensive patient care.
DENT-HYG 3300 Radiographic Interpretation Credits: 0.5
The purpose of the course is to introduce interpretation of radiographic anomalies and pathology just prior to the clinical experience. Since there was little time for an emphasis on radiographic interpretation during your second year radiology course, this lecture and participation course supplement clinic instruction in diagnosis of the patient’s oral needs and formulation of a treatment plan. Upon completion of this course, the student should be able to recognize simple pathology and radiographic anomalies.

DENT-HYG 3320 Oral Health Behavior Change Credits: 3
The purpose of this hybrid course is to prepare the junior dental hygiene student to effectively assess and individualize preventive oral health care through the use of brief motivational interviewing. The course will include evidenced based information in dental caries and caries risk assessment, caries preventive measures, introduction to periodontal disease, dental stains, and management of xerostomia, halitosis, and dentinal sensitivity, oral health care products and how to care for an oral appliance. The student will subsequently apply course concepts to facilitate patient behavior change in the clinical setting. Recommended preparation: a course in General Psychology.

DENT-HYG 3340 Principles Of Public Health Credits: 2
This course introduces the student to principles of public health, the field of epidemiology, health care delivery systems, public health terminology and teaching methodologies to use in culturally diverse community settings. Students will have the opportunity to assess a target population, plan, implement and evaluate appropriate programs. Students will also apply theories and skills of communication and education while preparing and presenting oral health education programs for various population groups.

DENT-HYG 4001 Clinical Oral Radiology Credit: 1
Clinical application of radiology principles taught in preceding terms. To provide clinical skills to safely make and interpret radiographic images for the provision of oral health care.

DENT-HYG 4020 Local Anesthesia And Pain Control Credits: 3
This course is designed to prepare dental hygiene students for the safe, effective administration of local anesthesia and nitrous oxide sedation. Included are content areas in anatomy, physiology, pharmacology, and emergency management as they relate to the administration of local anesthetics, nitrous oxide, and pain control. Laboratory sessions are structured to develop actual experiences in administration of local anesthetics and nitrous oxide. Various mechanisms for pain control are also covered. Methods of presentation include lecture, large group discussion, laboratory and clinical participation.

DENT-HYG 4040 Foundations of Teaching Credits: 2
This course provides an introduction to the evidence-based best practices in course design for students who are preparing for a career in teaching and for those who simply wish to learn more about classroom instruction. Students will explore outcomes centered course design and practical and effective instructional strategies. Content application activities include syllabus development, writing objectives, constructing lesson plans, preparing presentations and developing course management sites.

DENT-HYG 4050 Periodontics II Credit: 1
This course in Periodontics will provide and introduction to Phase II and III therapy. Periodontal decision making will be emphasized. The dental hygienists’ role in recognition, prevention and treatment of periodontal diseases and maintenance of periodontal health is further examined. Prerequisites: DENT-HYG 3260.

DENT-HYG 4060C Dental Hygiene Clinic II Credits: 2
The student will continue to develop competency in basic dental hygiene skills. Principles of periodontal techniques, such as non-surgical periodontal therapy, supportive treatment procedures and comprehensive patient care in a diverse society will be emphasized. The student will be asked to demonstrate professional management skills and productivity.

DENT-HYG 4065 Seminar in Dental Hygiene II Credit: 1
This seminar course is offered in conjunction with DENT-HYG 4060C, and expands upon theory and background presented in other dental hygiene courses within the curriculum which will involve further development of their critical thinking/problem solving skills regarding patient care. Students will be provided with further instruction regarding advanced instrumentation, cultural diversity, motivational interviewing and other technological advancements utilized in dental hygiene care. Co-requisites: DENT-HYG 4060C.

DENT-HYG 4080 Introduction to Research and Evidence Based Decision Making Credits: 2
This is a lecture/discussion course with assigned exercises in the research process and evaluating scientific studies. Students will apply basic principles of research design and methodology to the critical analysis of contemporary oral health related literature focusing on the review and evaluation of literature as it relates to the practice and profession of dentistry and dental hygiene with the intent of utilizing an evidence-based approach to care.

DENT-HYG 4100 Pharmacology Credits: 3
An overview and introduction to the major drug groups and common drugs taken by dental outpatients. Course includes the basic principles and general theories of drug action, basic pharmacokinetics, their mechanisms of action and therapeutic uses and the relative dental significance of each.

DENT-HYG 4110 Introduction to Research Methodologies Credits: 2
This is a lecture/discussion course with assigned exercises in the research process and evaluating scientific studies. Students will learn the basic principles involved in research design and methodology and will apply those principles to the critical analysis of contemporary health related literature. Focus on the review and evaluation of literature as it relates to the practice and profession of dentistry with the intent of utilizing an evidence-based approach to care will be stressed.
DENT-HYG 4115 Practicing in the Dental Hygiene Public Health Safety Net Credits: 3
The course is designed to increase the knowledge base of the practicing dental hygienist in the area of public health dentistry, including health promotion, disease prevention, current legislation, evidence-based treatment, school-based portable dentistry, coalitions, treating the geriatric and disabled populations, as well as how to write and secure.

DENT-HYG 4120C Dental Hygiene Clinic III Credits: 4
The student will continue to develop competency in intermediate dental hygiene skills. Principles of periodontal techniques, such as root planning, pain control and supportive techniques will be stressed. Comprehensive treatment planning and implementation of comprehensive care to a diverse patient population will be the focus of this course. Continued development of professionalism, management and critical thinking skills will be emphasized.

DENT-HYG 4125 ECP III Training Course Credits: 2
The ECP III Training Course is designed to prepare a registered dental hygienist to apply for the Kansas Extended Care Permit III. Hygienists with the ECP III certificate can practice under the sponsorship of a dentist in a variety of public health settings including schools and long term care facilities in Kansas.

DENT-HYG 4130 Introduction to Instructional Technologies and Online Learning Credit: 1
The web-based multimedia course will examine the mediated communication process using Internet tools and is designed to help the incoming student become prepared to succeed in their degree program using online technologies. Students will examine the changes and challenges associated with mediated synchronous and asynchronous technologies. The course will be delivered in four different modules.

DENT-HYG 4150 Portfolio Capstone Credit: 1
The capstone course serves as the culminating experience for students in the BSDH Degree Completion Program. During the Capstone course, students will create a coherent and cohesive body of work reflective of the competencies for the BSDHDC program—in the form of an e-Portfolio.

DENT-HYG 4210 Practice Management Credits: 3
Current relevant issues impacting dental hygiene practice are discussed. Dental practice economics, communicating and management in a diverse society are included. Also included in this course is the study of jurisprudence as it relates to the practice of dental hygiene.

DENT-HYG 4215 Practicing in the Dental Hygiene Public Health Safety Net Credits: 3
The course is designed to increase the knowledge base of the practicing dental hygienist in the area of public health dentistry, including health promotion, disease prevention, current legislation, evidence-based treatment, school-based portable dentistry, coalitions, treating the geriatric and disabled populations, as well as how to write and secure.

DENT-HYG 4220 Special Patient Care Practicum Credits: 2-4
Through outside agency affiliation, students will have the opportunity of applying the course content from Principles of Public Health, Dental Health Education and DHE-Practicum. Sites for participation include hospitals, nursing homes, and residential and day activity centers for developmentally disabled.

DENT-HYG 4240 Ethics In Professional Practice Credit: 1
Study of ethics and ethical issue related to the practice of dental hygiene within a diverse society. Includes application of ethical principles to real-life situations.

DENT-HYG 4260 Senior Seminar Credits: 2
This course serves as a means of synthesizing information from all courses in the dental hygiene curriculum and applying content to patient cases and practice management issues. Case-based learning (CBL) will be utilized to review significant content areas as well as to introduce subjects not previously encountered during previous clinical experiences. Case-based/problems based learning (PBL) with faculty facilitation will assist students in managing patient cases. This course is also designed to assist in preparing senior dental hygiene students for the written and clinical examinations required for licensure.

DENT-HYG 4260C Dental Hygiene Clinic IV Credits: 4
The student will have the opportunity to reach competency in all clinical skills. Emphasis will be placed on decision-making, problem-solving, critical thinking, appointment and time management. The course will focus on comprehensive dental hygiene care to a diverse population.

DENT-HYG 4315 Community Dentistry Practicum Credits: 2-4
The community dentistry practicum provides the student with an opportunity for personal exploration of the many settings of community dentistry. These experiences may lead the students into clinical activities or design and implementation of dental health educational programs. The student will have the opportunity to work with various community health professionals in the Kansas City area. The student will need reliable transportation and should expect some experiences to require travel. Possibilities for practicum experiences are broad and will be defined after an initial assessment of the student's interest and goals. An individual learning contract will be written following the assessment. The student will be required to meet as a group periodically throughout the semester.

DENT-HYG 4320ECP II Training Course Credits: 2
The ECP II Training Course is designed to prepare a registered dental hygienist to apply for the Kansas Extended Care Permit II. Hygienists with the ECP II certificate can practice under the sponsorship of a dentist in a variety of public health settings including schools and long term care facilities in Kansas.

DENT-HYG 4340 Community Dentistry Practicum Credits: 2-4
This course is designed for the dental hygiene student who desires increased experience with periodontal skills. The course involves practical experience in the graduate periodontics clinic working with a periodontology resident. Two clinic sessions per week; one seminar scheduled weekly.

DENT-HYG 4350 Periodontal Therapy Practicum Credits: 1-4
This course is designed for the dental hygiene student who desires increased experience with periodontal skills. The course involves practical experience in the graduate periodontics clinic working with a periodontology resident. Two clinic sessions per week; one seminar scheduled weekly.

DENT-HYG 4360 Practice Management Practicum Credits: 3
Current relevant issues impacting dental hygiene practice are discussed. Dental practices, economics, communication and management are included. Practical application of course would include the development of a dental office operating manual.

DENT-HYG 4380 Research Practicum Credits: 2-4
This course provides an opportunity to apply the content in the previous course Introduction to Research Design. The protocol identified may be a basic science, clinical or community dental hygiene problem. The field experience may deal with a basic or applied, descriptive or explanatory research question.
DENT-HYG 4500 Seminar on Issues in Higher Education for Health Professionals Credits: 2-4
This course is designed to introduce the student to matters encountered in higher education specific to dental hygiene education. Weekly readings, assignments, and sessions will familiarize the student in topics such as: writing resumes and cvs, case-based learning, accreditation, promotion and tenure, and assessment.

DENT-HYG 4600 Evidence Based Decision Making in the Clinical Practice of Dental Hygiene Credits: 2-4
This course is designed for the graduate and degree completion dental hygiene student and expand on the student’s basic knowledge of the dental hygiene process of care. Utilization of evidence based decision making skills will be explored in an effort to incorporate current scientific literature, personal clinical experience and patient preferences as it relates to the delivery of comprehensive patient care. Skills taught in this course will enhance background knowledge related to the dental hygiene process of care and help to foster an attitude of critical analysis and lifelong learning.

DENT-HYG 4620 Introduction to Educational Methodology Credits: 3
This course is designed to introduce the student to basic educational methodologies and to provide participants with a better understanding of the teaching/learning process. The course includes units on instructor/student relationships, educational approaches, educational ethics and professionalism, the scholarship of teaching and learning and curriculum theory.

DENT-HYG 4625 Dental Hygiene Administration Credits: 2
This course is designed for the post-certificate dental hygiene student. Major topic areas include accreditation of dental hygiene programs, the impact of National and State Board examinations on curriculum planning, selective admissions policies and procedures, faculty evaluation, promotion and tenure and students’ rights.

DENT-HYG 4630 Practicum in Dental Hygiene Administration Credits: 2-4
Under the supervision of the Director of Dental Hygiene, the student will gain actual experiences in the daily administration of a dental hygiene program. The student may contract for responsibilities such as admissions, budget preparations, course scheduling, report writing and student academic counseling.

DENT-HYG 4635 Practicum In Clinical Supervision Credits: 2-4
Under the supervision and permission of the Dental Hygiene Clinical Supervisor, the student will gain actual experience in the duties involved in coordinating the clinical education of a dental hygiene student. The student may contract for responsibilities such as, coordinating mock board examinations, maintaining student clinical records, developing faculty and student clinic schedules and report writing.

DENT-HYG 4640 Student Teaching and Conference I Credits: 2-4
Under the direction of a supervising professor, the student may select teaching experience in the classroom areas of their choice. The student develops behavioral course objectives, comprehensive lesson plans, test and examination items, classroom presentations, and prepares student evaluations in the selected classroom teaching areas. The student may select teaching assignments in one of the developed externship student teaching programs. Conferences will be held in conjunction with the course.

Prerequisites: DENT-HYG 4040, DENT-HYG 4620.

DENT-HYG 4650 Student Teaching and Conference II Credits: 2-4
The student will continue to develop teaching skills in laboratory and/or classroom areas as selected by the student under the direction of a supervising professor.

Prerequisites: DENT-HYG 4640.

DENT-HYG 4660 Independent Study in Dental Hygiene Credits: 1-4
This course is designed for the dental hygiene student who desires independent study of a particular problem or area of interest in dental hygiene education.

DENT-HYG 4680 Dental Hygiene Clinical Instruction I Credits: 2-4
Continued development of competency as a clinical instructor under the supervision of the dental hygiene faculty. Requires a half-day in clinic student instructor.

Prerequisites: DENT-HYG 4640.

DENT-HYG 4685 Dental Hygiene Clinical Instruction II Credits: 1-4
A continuation of DENT-HYG 4680. Under the supervision of the dental hygiene faculty, students may continue to develop skills as a dental hygiene clinical instructor.

Prerequisites: DENT-HYG 4680.

DENT-HYG 5500 Introduction to Educational Methodology Credits: 3
This course is designed to introduce the student to basic educational methodologies and to provide participants with a better understanding of the teaching/learning process. The course includes units on instructor/student relationships, educational approaches, educational ethics and professionalism, the scholarship of teaching and learning and curriculum theory.
DENT-HYG 5502 Foundations of Teaching Credits: 2
This course provides an introduction to the evidence-based best practices in course design for students who are preparing for a career in teaching and for those who simply wish to learn more about classroom instruction. Students will explore outcomes-centered course design. Content application activities include syllabus development, writing objectives, constructing lesson plans, preparing presentations, developing course management sites, and test development.
Prerequisites: Must be a student enrolled in the MSDHE program.

DENT-HYG 5510 Student Teaching and Conference I Credits: 2-4
Student teaching experience in classroom areas as selected by the student under the direction of a supervising professor. The student develops behavioral course objectives, test and examination items, classroom presentations, and prepares student evaluations in the selected classroom teaching areas. The student may select teaching assignments in one of the developed externship student teaching programs. Conferences will be held in conjunction with the course.
Prerequisites: DENT-HYG 4040, DENT-HYG 5500.

DENT-HYG 5512 Student Teaching and Conference II Credits: 2-4
This course is designed to provide the graduate dental hygiene student with additional experience in classroom teaching. Student teaching experiences will be selected by the student under the direction of and in conference with a supervising professor.

DENT-HYG 5516 Special Issues in Higher Education for Health Professional Credits: 3
This course is designed to introduce the student to matters encountered in higher education - specific to dental hygiene education. Weekly readings, assignments, and sessions will familiarize the student in topics such as: writing resumes and CVs, motivational interviewing, accreditation, promotion and tenure, and social media.

DENT-HYG 5530 Clinical Instruction and Conference I Credits: 2-4
Students will actively participate in clinical instruction under the supervision of a dental hygiene faculty member. Topics relative to clinical teaching will be discussed in weekly seminars. Students will be encouraged to apply knowledge gained in DENT-HYG 4620 and DENT-HYG 5500 during clinical instructional experiences. Additionally the student must participate in at least 2 days of clinic per week to equal another credit hour of course work.

DENT-HYG 5532 Clinical Instruction and Conference II Credits: 2-4
This course is a continuation of DENT-HYG 5530. Under the supervision of the dental hygiene faculty, the student will continue to develop skills as a dental hygiene clinical instructor.
Prerequisites: DENT-HYG 5530.

DENT-HYG 5553 Evidence Based Decision Making in the Clinical Practice of Dental Hygiene Credits: 2-4
This course is designed for the graduate and degree completion dental hygiene student and will expand on the student's basic knowledge of the dental hygiene process of care. Utilization of evidence-based decision making skills will be explored in an effort to incorporate current scientific literature, personal clinical experience and patient preferences as it relates to the delivery of comprehensive patient care. Skills taught in this course will enhance background knowledge related to the dental hygiene process of care and help to foster an attitude of critical analysis and life-long learning.

DENT-HYG 5560 Practicum in Clinical Supervision and Management Credits: 2-4
Practical experience in functioning as a Clinic Supervisor. Clinical managerial projects will be assigned according to students' interests and goals by agreement between student and instructor.

DENT-HYG 5565 Advanced Special Patient Care Practicum I Credits: 1-4
This course is designed to familiarize the student with general principles of cancer therapy and the role of the dental team in the multidisciplinary care of patients undergoing oncology treatments. Special emphasis will be placed on the treatment of the patient with head and neck cancer, and preventive and palliative dental interventions for control of the oral complications associated with all cancer therapies. Cancer prevention issues and the psychosocial and economic impact of cancer diagnosis will also be discussed.

DENT-HYG 5566 Advanced Special Patient Care Practicum II Credits: 1-4
This course will provide the graduate dental hygiene student with the opportunity to explore the relationship of an oncology dental program to medical health care facilities.

DENT-HYG 5570 Administrative Practicum Credits: 1-4
Practical experience in administration. The student selects areas of responsibility based on their goals and interests in administration. Possible areas of involvement are: recruitment, admissions, curriculum and course development, course scheduling, grant and report writing and student advising.

DENT-HYG 5575 Practicing in the Dental Hygiene Public Safety Net Credits: 3
This course is designed to increase the knowledge base of practicing dental hygienists in the area of public health dentistry, including health promotion, disease prevention, current legislation, evidence-based treatment, school based portable dentistry, coalitions, treating the geriatric and disabled populations, as well as how to write and secure grant monies. In addition, the course will expose dental hygienists to a variety of public health settings in which they can practice with an Extended Care Permit (in KS) or the Dental Hygiene Designation (in MO). Information on how to apply for the permits will also be shared.
DENT-HYG 5576 Extended Care Permit (ECP) III Training Course Credits: 2
The Extended Care Permit (ECP) III Training Course is designed to prepare a registered dental hygienist to apply for the Kansas Extended Care Permit III. Hygienists with the ECP III certificate can practice under the sponsorship of a dentist in a variety of public health settings including schools and long term care facilities in Kansas.
Prerequisites: Must be a student enrolled in the MSDHE program.

DENT-HYG 5585 Portfolio Capstone Course Credit: 1
This capstone course serves as the culminating experience for students in the MS in Dental Hygiene Education (MS in DHE). During the Capstone course, students will create a coherent and cohesive body of work reflective of attainment of the competencies for their respective programs - in the form of an e-Portfolio. This course should be taken in the semester of anticipated completion/graduation of the MS in DHE program.

DENT-HYG 5590 Independent Study Credits: 1-4
Independent study of a particular topic or area of interest to the student in dental hygiene/dentistry and/or higher education.

DENT-HYG 5595 Writing in Science Credits: 1-2
This seminar course is designed to provide advanced education students in the health professions the skills necessary to write and communicate in science. Course activities and topics include: critical analysis of the literature, literature summary tables, structure and organization of documents, style and usage, drafting, revising and finishing. Participants will practice the craft of scientific writing not only as the writer but also as the reader providing correction and reorganization where appropriate. While this course examines many writing tasks, exercise culminate with the development of a research protocol or scientific article.

DENT-HYG 5599 Research And Thesis Credits: 1-6
This course is designed to support the research process from protocol development through data collection and report of results. Research committee chairperson typically serves as the course director.
Department of Oral and Craniofacial Sciences

Applicants can view tuition/fee information here: http://www.umkc.edu/adminfinance/finance/cashiers/dentistry-tuition-fee-rates.asp

Oral & Craniofacial Sciences Department Chair:
Mark L. Johnson, PhD

Director of Oral & Craniofacial Sciences Graduate Programs:
Mary P. Walker, DDS, PhD

Faculty:
Mark Johnson, PhD; Mary Walker, DDS, PhD; Sarah Dallas, PhD; Jeffrey Gorski, PhD; Carole McArthur, MD, PhD; Yasuyoshi Ueki, MD, PhD; Yong Wang, PhD; Laura Iwasaki, DDS, MSc, PhD; Jeffrey Nickel, DMD, MSc, PhD; Shankar Rengasamy Venugopalan, BDS, PhD, DMedSc; Melanie Simmer-Beck, PhD; Cynthia Amyot, MS, PhD; Bonnie Branson, MS, PhD

- Master of Science: Oral and Craniofacial Sciences (p. 987)
- Interdisciplinary Ph.D. (p. 990)

UMKC is An Equal Opportunity/Access/Affirmative Action/Pro Disabled & Veteran Employer

Applicants can view tuition/fee information here: http://www.umkc.edu/adminfinance/finance/cashiers/dentistry-tuition-fee-rates.asp

Faculty

Oral and Craniofacial Sciences Department Chair:
Mark L. Johnson, Ph.D.

Director of Oral and Craniofacial Sciences Graduate Programs:
Mary P. Walker, D.D.S., Ph.D.

Faculty:
Master of Science in Oral and Craniofacial Sciences

General Nature of the Program

Program Overview

The overall goals of the Oral & Craniofacial Sciences (OCS) MS program are: 1) to produce graduates knowledgeable in advanced concepts and principles of biomaterials and oral & craniofacial biology; 2) train students to critically evaluate and apply scientific literature; 3) provide students basic research skills; and 4) produce graduates who will advance scientific knowledge in oral and craniofacial health sciences.

This program includes advanced work in basic, behavioral and clinical sciences relating to dentistry. The OCS MS program is designed for students who are concurrently enrolled in advanced dental residency certificate programs. Those interested in applying for a residency program (Orthodontics, Periodontics, Endodontics) and also interested in a Master of Science degree should note that an application to the OCS MS program would be subsequent to their acceptance into the residency program.

The coursework and thesis present an opportunity for the student to cross traditional departmental lines and undertake an interdisciplinary approach to the study of problems related to oral and craniofacial sciences. On successful completion of all necessary coursework and thesis requirements, the student is awarded a Master of Science degree in Oral & Craniofacial Sciences.

Admission Information

Master of Science Admission Requirements

• A DDS/DMD or equivalent degree.
• A minimum cumulative GPA of 3.0 for all undergraduate work, including dental school.
• The TOEFL is required for all international applicants, who must have a score of at least 80 An IELTS score of 6.0 or above may be accepted in place of the TOEFL.
• Graduate Record Examination (GRE), with the following minimum scores:
<table>
<thead>
<tr>
<th>GRE Score Scale</th>
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<tbody>
<tr>
<td>Quantitative</td>
</tr>
<tr>
<td>150</td>
</tr>
<tr>
<td>Verbal</td>
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<tr>
<td>155</td>
</tr>
<tr>
<td>Analytical Writing</td>
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<td>4.0</td>
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Application Procedures

The OCS MS programs is designed for applicants, who will be concurrently enrolled in a dental residency program. To be eligible for dental specialty program, you must be a US citizen or permanent resident with a DDS or DMD degree from an institution accredited by the Commission on Dental Accreditation or the Canadian Dental Accrediting Commission.

Application to the OCS MS program should occur after you have been accepted into the dental residency program (Endodontics, Orthodontics, Periodontics). After you have been accepted, if you are interested in applying, please contact Dr. Mary Walker (walkermp@umkc.edu) regarding your interest. From there, you will receive specific guidance on the application process. Items for the OCS MS application will include:

• Official transcripts from all colleges attended
• Official GRE scores
• Two letters of recommendation *
• Personal Statement: indicating your past research experience, your reason for pursuing the Oral and Craniofacial Sciences MS degree and your possible research interests.
• Resume/CV

*Note on Recommendation Letters

Recommendation letters should be addressed to:
Dr. M.P. Walker, Director of Oral & Craniofacial Sciences Graduate Programs
UMKC School of Dentistry
650 East 25th Street
Kansas City, MO 64108-2795

Student Learning Outcomes and Curriculum

Student Learning Outcomes

Upon successful completion of the Oral & Craniofacial Sciences MS Program, the student will be able to do the following:
1. Demonstrate a deeper understanding of the link between scientific research and clinical health care practice
2. Conduct thorough literature reviews based on an understanding of periodical databases and scholarly journals in the health sciences; have the aptitude to assess the validity of literature and determine how it may be applied in both research and clinical settings
3. Demonstrate the ability to conduct original research projects, drawing on an understanding of the current literature, appropriate study design, methodologies, and data analysis
4. Develop the capability to produce written materials that are clear, well-organized, insightful, and drawn from evidence-based research
5. Employ the communications skills needed to successfully convey important scientific and clinical concepts in oral presentations and communications
6. Apply professional ethics with the highest standards of integrity in all facets of research

The candidate enrolled in this program must complete a minimum of 30 semester hours of coursework. These courses must be listed on the Master's Degree Program of Study form (available from the Department of Oral and Craniofacial Sciences office).

### Curriculum

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO-SCI 5751</td>
<td>Elements of the Scientific Method</td>
<td>1 credit hour</td>
</tr>
<tr>
<td>BIO-SCI 5752</td>
<td>Research Methods in Oral and Craniofacial Sciences</td>
<td>2-3 credit hours</td>
</tr>
<tr>
<td>BIO-SCI 5799</td>
<td>Research And Thesis</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>RES-ME 5700</td>
<td>Introduction To Research Methodology</td>
<td>2-3 credit hours</td>
</tr>
<tr>
<td>RES-ME 5703</td>
<td>Thesis Writing</td>
<td>1 credit hour</td>
</tr>
<tr>
<td>RES-ME 5704</td>
<td>Introduction to Biostatistics</td>
<td>2-3 credit hours</td>
</tr>
</tbody>
</table>

### Additional Courses

Some examples of additional courses applicable to the program:

- BIO-SCI 5710: Genetics and Biochemistry of Cranial Facial Biology
- BIO-SCI 5739: Biomaterials for the Dental Specialist
- BIO-SCI 5740: Oral Pathology I
- BIO-SCI 5743: Advanced Seminar in Dental Biomaterials
- BIO-SCI 5747: Research Instrumentation Used in Dental Biomaterials
- BIO-SCI 5759: Special Problems in Pharmacology
- BIO-SCI 5760: Physiology of Oral Mineralized Tissues
- BIO-SCI 5802: Immunopathology
- BIO-SCI 5805: Molecular Biology of Oral Microflora
- BIO-SCI 5830: Structural Characterization of Dental Biomaterials

### Program Requirements

#### Thesis Research & Writing

To successfully graduate from the Oral & Craniofacial Sciences MS program, students must complete a minimum of 30 semester hours of graduate coursework as outlined on their program of study while maintaining a minimum 3.0 GPA. In addition to coursework, there are four major stages of the Oral & Craniofacial Sciences (OCS) MS program that students must successfully complete:

1. Qualifying Exam: Written Component-Research Proposal and Oral Component-Presentation/Exam
2. Research Project

3. Thesis

4. Thesis Defense

The OCS Graduate Program Director will serve as the student’s academic advisor throughout the program and will assist with the selection of a thesis committee chair. The selection process will be based on the student’s research interests, the various research opportunities, and meetings with potential MS degree advisors. Once the committee chair is selected, the chair and the OCS Graduate Program Director will assist the student with selecting two or three additional faculty members to serve on the thesis committee.

Qualifying Exam: Research Proposal and Oral Presentation/Exam

The Research Proposal is the written component of the Qualifying Exam that also includes an oral component, a student presentation about the proposed project followed by questions about the proposal, associated literature, and applicable coursework.

The required courses, BIO-SCI 5751 Elements/Scientific Methodology and BIO-SCI 5752 Research Methods in Oral & Craniofacial Sciences, are the foundation for writing the Research Proposal for the MS thesis project. These courses are individualized instruction with the Program Director and your thesis committee chair. As part of the Research Proposal development process, IRB and/or IACUC protocol approvals must be obtained as needed with the assistance of the Thesis committee chair.

The Oral Component of the Qualifying Exam is scheduled once the committee has reviewed the written proposal. The oral exam consists of the student doing a presentation about the proposal in addition to answering related questions.

Research Project

The student will enroll in BIO-SCI 5799 Research & Thesis (6 credit hrs). Credit hours will be distributed across various semesters. Until the thesis is successfully completed and defended, a grade of incomplete (I) is given for each term of enrollment in this course. Upon successful defense and completion of the thesis, incomplete grades will be changed to an appropriate letter grade. The thesis committee members will advise and guide the students in the successful completion of their research project.

Thesis

Following completion of the research project, the student will write a master’s thesis. Original research will be used to construct a formal thesis conforming to the standards set by the School of Graduate Studies. The thesis chair and committee members will provide guidance in this process. Following initial approval by the chair, the thesis will be submitted to the entire committee for review.

Thesis Defense

School of Dentistry regulations require students to defend their thesis at a university-wide seminar on their research. The Thesis Defense Examination will be scheduled following preliminary thesis approval by the committee. After a successful Thesis Defense Examination and pending any thesis revisions based on committee feedback, the student will work closely with the School of Dentistry Librarian on thesis formatting procedures and policies as part of RES-ME 5703 Thesis Writing.

Other Requirements

Students will be expected to comply with all rules, regulations and requirements specified in the General Graduate Academic Regulations and Information section of this catalog.
Oral and Craniofacial Sciences Interdisciplinary Ph.D.

The Ph.D. program at UMKC is interdisciplinary. This program is described in more detail in the Oral and Craniofacial Sciences Interdisciplinary Ph.D. Program (p. 1288) within the Graduate Studies section of this catalog.

Students interested in studies at the doctoral level in the discipline of oral and craniofacial sciences should apply to the Interdisciplinary Ph.D. program in the School of Graduate Studies.

Detailed information on the general and discipline-specific admission requirements for the Ph.D. can be found in the School of Graduate Studies section of this catalog.

Faculty

Oral and Craniofacial Sciences Department Chair:
Mark L. Johnson, Ph.D.

Director of Oral and Craniofacial Sciences Graduate Programs:
Mary P. Walker, D.D.S., Ph.D.

Faculty:

Courses

OR-BIO 5699 Dissertation Research Credits: 1-12
Ph.D. dissertation research.

OR-BIO 5702 Biomechanics of Mineralized Tissue Credits: 3
The physical principles underlying mineralized tissue biomechanics will be presented at multiple hierarchies. Details of bone, tooth and joint (with a special emphasis on the TMJ) anatomy and function will be outlined as related to mechanical loading.

OR-BIO 5899 Required Graduate Enrollment Credit: 1
Doctor of Dental Surgery Program

The UMKC School of Dentistry educates competent and caring oral health care providers through a dental curriculum that combines the best of the classroom and clinic. Preclinical dental and biomedical courses give our students the solid conceptual foundation they will need to successfully practice dentistry. Beginning early in the first year and increasing throughout the four-year program, students work with peers and faculty to master the clinical skills required to deliver comprehensive oral health care. Students treat their assigned patients within a "team" system of clinic organization, which is a hallmark of this program.

If you are a college student with at least 90 hours of college credit or a college graduate, you may apply for admission to the D.D.S. program. Applicants are strongly encouraged to complete a baccalaureate degree prior to starting their dental education. As a public institution financially supported by the state of Missouri, our first obligation is to qualified residents of Missouri. Additionally we have long-standing agreements with the states of Kansas, Arkansas, New Mexico, and Hawaii to accept qualified residents of those states to our program. Preferred consideration will be given to applicants who are residents of the states listed above. Applications from other states are welcome and are considered on an individual basis for highly qualified candidates. A limited number of students are also considered through an agreement with the State of Kuwait.

To apply for the D.D.S. program, you must submit an application through the American Dental Education Association’s application service (AADSAS (http://www.adea.org)). Although the UMKC deadline for application submission is October 1, early applications are strongly recommended. A preference is given to applications received in the Office of Student Programs of the School of Dentistry prior to September 1. Keep in mind that AADSAS can take up to six weeks to process and deliver an application. Therefore, it is extremely important that you apply in June or July of the year prior to anticipated entry into dental school.

The admission process is a selective one. A number of variables will be considered: academic credentials, Dental Admission Test scores, letters of recommendation, investigation of dentistry, community service, personal attributes and your written responses to a series of questions. In addition, an "invitation only" interview is a part of the selection process. To be sure you fully understand the admissions process, applicants are encouraged to thoroughly review the additional admissions guidelines available here (http://dentistry.umkc.edu/Future_Students/DDSAdmissions.shtml).

This four-year program begins in August and culminates with a doctor of dental surgery degree. Click here to view the curriculum in detail. (p. 1012)

A suggested pre-dental schedule of activities can be downloaded here (http://dentistry.umkc.edu/Future_Students/asset/pdfs/SuggestedPreDentalSchedule.pdf).

Courses

DENT 6305 Operative Dentistry I Lecture Credit: 1
An introduction to the prevention and principles of the restorative treatment of dental caries.

DENT 6305L Operative Dentistry I Laboratory Credits: 2
Restorative procedures discussed in DENT 6305 are performed on laboratory manikins.

DENT 6306 Transitions: An Introduction to the Profession and Practice of Dentistry Credits: 0.5
This course is the first in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the knowledge, skills and values of ethics, professionalism and practice management. The courses use self-assessment and strategic planning as foundations and lead the students through identification of personal and professional aspirations, and culminate in building each student's competence in dental practice management.

DENT 6307 Transitions: Introduction to the Profession & Practice of Dentistry II Credits: 0.5
This course is the second in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course builds on strategic planning foundation to gain an understanding of personal financial management in the context of personal and professional goals in the field of dentistry.

DENT 6310C Patient Care I Credits: 3
This course introduces the dental student to the foundation knowledge and skills and values for the provision of oral health care. This includes infection control, cubicle set-up and breakdown, dental assisting, patient/operator positioning, patient vital signs, radiographic techniques, patient communication and basic concepts of oral health and disease. Students will assist third and fourth year students in various clinical areas after appropriate preparation, and will provide oral hygiene instruction for elementary age students.

DENT 6312 Dental Behavioral Science I Credits: 1-2
An introduction to the basic principles of behavioral science as they relate to oral self-care and professional practice. Topics include basic principles of human behavior, adherence, motivational interviewing, dental fears, chronic oro-facial pain, and conflict management. Students will complete an in-depth motivational case report and a communication competency exam with selected patients.

DENT 6313 Applied Biochemistry Credits: 4
This is a course geared to the biomedical foundation knowledge of dental students. The course is composed of six sections focused on clinically important topic areas each cumulating with a clinical presentation. Course content will intentionally emphasize new knowledge areas in cancer, inflammation, genetic diseases, metabolic diseases, mineralized tissues in health and disease, oral health, hormone actin, and blood coagulation/wound healing.

Prerequisites: an Undergraduate Biochemistry course.
DENT 6314C Patient Care II Credits: 2
This course builds on the skills introduced in DENT 6310C with a review and the continuation of the clinical rotations. In addition, students will learn the steps of a basic oral diagnosis, and will demonstrate their understanding with graded peer exams and by performing selected portions of a diagnosis on two clinic patients with the assistance of a 3rd or 4th year dental student.

DENT 6315C Patient Care III Credits: 3
This course introduces preventive theory necessary to provide patient care. Students are introduced to fundamental clinical procedures including dental deposits, gingival assessment, identification and classification of periodontal diseases, and periodontal probing. The information learned in this course continues in fall, second year (Patient Care IV) where student are introduced to basic periodontal instrumentation skills to assess and treat simple patients.

DENT 6316 Dental Morphology Credits: 3
This lecture/laboratory course introduces the student to the anatomy of the oral cavity and structures of the stomatognathic system. A thorough review of dental anatomy and dental terminology of the primary and permanent dentition will be presented. The students’ knowledge of dental morphology will be reinforced by constructing wax models of permanent dentition.

DENT 6317 Fundamentals of Occlusion and Fixed Prosthodontics Credits: 3
This lecture laboratory course will review the fundamental principles of dental occlusion, the anatomy and function of the stomatognathic system, and foundational knowledge of fixed prosthodontics.

DENT 6319 Ethics and Professionalism Credit: 1
An introduction to basic concepts of ethics and professionalism. Systems of ethical decision making are introduced and applied in the context of oral health care and interprofessional practice. Students will explore their own ethical values and apply this knowledge to issues in professional education.

DENT 6328 Clinical Decision Making in Dentistry Credits: 1-2
An experiential course that uses current controversies in to facilitate development of skills needed for making valid decision in clinical dentistry. Students will apply basic principles of database searching, research design and methodology to the critical analysis of contemporary dental literature. This one-hour course will: 1) Provide you with sufficient information to perform week on the portions of the national boards that deal with research design and methodology; and , 2) give you skills sufficient to search for, locate, and evaluate valid information related to clinical questions in contemporary dentistry.

DENT 6350 Introduction To The Histopathology Of Oral Tissues Credits: 2
A comparison of the microscopic anatomy of healthy and diseased oral tissues.

DENT 6352 Patient Care IV Credits: 1-3
This course is a continuation of DENT 6310C, DENT 6314C, and DENT 6315C which introduces preventive theory and the instrumentation skills necessary to provide patient care. Students are introduced to fundamental clinical procedures including plaque control, gingival assessment, and periodontal probing. Review of radiology, radiographic technique and interpretation, assisting skills, diagnosis and periodontal instrumentation will be implemented in this course.

DENT 6390 Dental Research Experience Credit: 1
This independent study course focuses upon experience gained in both an area of dental research as well as the process of research in working with an established dental researcher.

DENT 6402 Transitions: Introduction to the Profession of Dentistry III Credits: 0.5
This course is the third in a sequence throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course builds on strategic planning foundation established in year one to gain an understanding planning for development of a dental practice.

DENT 6403 Transitions: Introduction to the Profession & Practice of Dentistry IV Credits: 0.5
This course is the fourth in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course continues the strategic planning framework as the dental practice business plan is developed. The focus for this course is on managing the finances of a dental practice.

DENT 6410 Operative Dentistry II Lecture Credit: 1
A continuation of DENT 6305. Principles of cavity preparation, materials and techniques are stressed.

DENT 6410L Operative Dentistry II Laboratory Credits: 2
A continuation of DENT 6305L. Restorative procedures are performed on laboratory manikins and extracted teeth.

DENT 6411 Operative Dentistry III Lecture Credit: 1
A continuation of DENT 6410.

DENT 6412 Introduction to Oral Surgery & Pain Management I Credit: 1
This course introduces students to foundational concepts of oral surgery and pain management. The course consists of lectures, demonstration and pre-clinical practice and simulation in the safe and effective use of local anesthetics in dentistry and basic intraoral surgical procedures. This course includes patient assessment for intraoral procedures, and instrumentation and techniques required to anesthetize a patient and extract teeth. Students will participate in practical experiences to begin to build skills in the necessary techniques to manage patient's pain and perform basic surgical procedures.
DENT 6414 Pathology I Lecture Credits: 4
The general etiology of disease; circulatory and metabolic disorders; degenerative processes; inflammation; infection and immunity; tumors; and organ system pathology.

DENT 6415 Pathology II Credits: 2
A study of developmental defects, inflammatory diseases, and neoplasia of the oral region.

DENT 6416 Complete Removable Prosthodontics Credit: 1
This course will introduce the dental student to concepts and procedures involved in the rehabilitation of the completely edentulous patient. Information presented will include proper clinical examination techniques, an evaluation of the findings and their impact on treatment and treatment options. The student will become familiar with the clinical steps involved in the fabrication of complete dentures and the rationale supporting these procedures. Laboratory steps as they relate to clinical treatment procedures will also be discussed. There will be additional information presented regarding single complete dentures, immediate dentures, overdentures, implant-retained complete dentures, and rebasing and relining techniques.

DENT 6416L Complete Removable Prosthodontics I Laboratory Credits: 2
This course will introduce the student to the clinical and laboratory steps involved in the fabrication of complete dentures. Students will learn how to manipulate the materials involved as well as indications for their usage. The course will be structured to closely resemble the clinical experience in concept and techniques where feasible. The goal is to teach the skills necessary to manage edentulous patients and also to teach in detail the entire process of complete denture fabrication. This will enhance overall dental skills and provide a knowledge base with which to critically evaluate laboratory procedures and results. This laboratory course provides the student the opportunity to acquire the foundational skills, which must be mastered before clinical competency, can be attained. A goal of the course is to provide the opportunity for the student to acquire the hand/eye skills, which are necessary to treat the edentulous patient in a clinical setting.

DENT 6417 Removable Partial Prosthodontics Credit: 1
The study of the terminology, design, theory, and basic procedures in removable partial denture construction in addition to diagnosis and treatment planning will be stressed through the lectures.

DENT 6417L Removable Partial Prosthodontics Laboratory Credits: 2
In the laboratory the students will learn to plan, design, and prepare the mouth for a prosthesis. They will demonstrate understanding of concepts and methods by applying them to the solution of problems. The student will: develop critical thinking and problem solving related to diagnosis, planning and treatment; make decisions based on current empirical and published evidence; make custom trays for final impression, and record bases and wax rims for recording jaw relationship.

DENT 6420 Periodontics I Credits: 2
It is the scope of this course to introduce the basic disease mechanisms involved in the evolution of the inflammatory periodontal lesion; i.e., the interaction of the host tissues with the oral microbial flora. The course will cover the entire range of possible periodontal diseases, ranging from simple marginal gingivitis to AIDS related necrotizing ulcerative periodontitis. Further, the course will continually reinforce the science of periodontology and its overwhelming relationship to the clinical practice of periodontics.

DENT 6422 Fixed Prosthodontics I Lecture Credit: 1
This course is designed to provide the foundation knowledge needed by the novice to formulate clinical judgments in the areas of treatment planning, tooth preparation, and the selection and use of dental biomaterials for the restoration of single teeth with fixed prosthodontic restorations. The topics covered also include provisional restorations, impressions materials and technique, dental cements, and laboratory aspects involved in the fabrication of cast gold crowns.

DENT 6422L Fixed Prosthodontics I Laboratory Credits: 2
The second course in the fixed prosthodontic curriculum is designed to provide foundation knowledge needed by the novice to formulate clinical judgments in the areas of treatment planning, tooth preparation, and the selection and use of dental biomaterials for the restoration of missing teeth with fixed partial dentures and implants.

DENT 6423 Fixed Prosthodontics II Lecture Credit: 1
The second course in the fixed prosthodontic curriculum is designed to provide foundation knowledge needed by the novice to formulate clinical judgments in the areas of treatment planning, tooth preparation, and the selection and use of dental biomaterials for the restoration of missing teeth with fixed partial dentures and implants.

DENT 6423L Fixed Prosthodontics II Laboratory Credits: 2
The second laboratory course in fixed prosthodontics is focused on the replacement of missing teeth with fixed partial dentures and implant restoration. Projects build the skills to begin development of clinical competence in fixed partial dentures and implant restorations.

DENT 6424 Dental Management of the Medically Complex Patient Credits: 2
This course focuses on the understanding of medical conditions and compromised states that patients present with, enabling the clinician to develop dental treatment plans that are safe and compatible with their medical status.

DENT 6426 Oral Radiology Lecture Credits: 2
Radiation physics, radiation biology, quality assurance, imaging principles, radiation hygiene, radiographic interpretation and techniques of intra-oral survey are presented.

DENT 6429 Dental Behavioral Science II Credit: 1
This course builds upon the foundational material with a focus on dealing with challenging patients and managing professional stress. Students will complete an in-depth anxiety management project and communication competency exam with selected patients.
DENT 6431 Pediatric Dentistry I Lecture Credit: 1
The overall goal of this didactic course is to provide the student with the fundamental knowledge necessary to provide comprehensive dental care to pediatric patients. In addition, this course strives to develop an attitude towards learning such that the student will seek opportunities to further his/her knowledge and skills in pediatric dentistry subsequent to graduation. Finally, this course is intended to sensitize students to their responsibility as health care providers for the children in their community.

DENT 6435 Endodontics I Lecture Credit: 1
An introductory course in endodontics emphasizing pulp and periradical biology and pathology. Extra emphasis will be placed on endodontic diagnosis of non-odontogenic facial pain, problems with anesthesia in endodontics and treatment planning.

DENT 6436 Orthodontics: Growth And Development Credit: 1
Certain malocclusions and dental deformities can occur due to variations in growth and normal developmental process. In order to treat and understand these problems, an in-depth and thorough understanding of craniofacial growth and development is necessary. Understanding how and when the face and head is actively growing will enable the clinician to redirect facial growth to reduce the severity of forming skeletal/dental malocclusions. Since orthodontic treatment may involve the modification and/or manipulation of skeletal growth, it is important not only to understand dental development but also physical, physiologic and psychosocial development. This course is designed to address these needs.

DENT 6439 Medical Emergencies in the Dental Office Credit: 1
The purpose of this course is to comprehensively review the management of common medical emergency situations that a dentist is likely to encounter in the dental office. In this course, the students will gain a thorough understanding of the preventive measures and appropriate response to medical emergencies including the appropriate use of the Emergency Medical System. Moreover, pertinent information regarding the pathophysiology associate with common medical emergencies will be discussed.

DENT 6440 Introduction to Oral Surgery & Pain Management II Credit: 1
This course builds on the fundamental concepts in oral surgery and pain management presented in Dent 6412 to prepare students for patient care in oral surgery and management of pain for provision of dental care. The lectures will focus on treatment needs of the medically compromised surgical patient, ability to safely and adequately deliver local anesthesia, non-pharmacological management of pain as well as OTC and prescription medications for pain management. The course will also focus on appropriate case selection for a general dentist. In the pre-clinical lab portion of the course, students will participate in exodontia simulation and local anesthesia administration.

DENT 6442 Endodontics II Lecture Credit: 1
A continuation of the study of endodontics emphasizing non-surgical endodontics, surgical endodontics and post-endodontic treatment.

DENT 6442L Endodontics Laboratory Credits: 2
The preparation and filling of root canals of extracted teeth in the laboratory setting.

DENT 6460C Review of Pre-Clinical Dentistry Credits: 0.5
A combination of online lectures, selected readings and independent study designed to reinforce and integrate concepts contained in the pre-clinical dental curriculum.

DENT 6451C Intro to Comprehensive Patient Care Credits: 1-10
The purpose of this course is to introduce the student to the clinical environment and to familiarize him/her with comprehensive patient care. In addition, it allows the student to develop and interpret basic diagnostic aids that enable him/her to arrive at a diagnosis and treatment outline, the beginning steps of comprehensive care. Patient care is provided following the outlined treatment plan. The student will apply the principles/concepts of patient care. Students begin treatment of a "family" of patients under faculty supervision.

DENT 6502 Grand Rounds I Credit: 1
Students prepare to develop and present oral reports typically given at professional meetings such as case presentations, table clinics, research reports or presentations of new techniques (such as in Table Clinic requirements or Senior Grand Rounds). This course will expand on the student's basic knowledge of critical review of scientific literature and information literacy. Cases and problems in dentistry and oral health will be the context for identification and application of current valid scientific literature. This course seeks to foster an attitude of critical analysis and commitment to lifelong learning.

DENT 6509C Comprehensive Patient Care I Credits: 1-10
Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist. This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skills through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6510C Comprehensive Patient Care II Credits: 1-10
Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist. This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skills through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6514 Pathology III Lecture Credit: 1
Continued study of pathological conditions of the oral region with emphasis on clinical signs and symptoms.
DENT 6515 Periodontics II Credit: 1
The overall goal of this course is to help the pre-doctoral students to recognize periodontal disease and treatment plan the needed periodontal therapy. Specific goals are to enhance the student's knowledge of the surgical aspects of periodontal therapy, and the relationship of periodontal disease and its treatment to the overall dental treatment plan.

DENT 6518 Transitions: Introduction to the Profession & Practice of Dentistry V Credit: 1
This course is the fifth course in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course continues the strategic planning framework and focuses on practice building strategies.

DENT 6520 Transitions: Introduction to the Profession & Practice of Dentistry VI Credit: 1
This course is the sixth course in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course continues with the strategic planning framework and focuses on the skills, knowledge and attitudes necessary for the day to day leadership of a dental practice.

DENT 6521 Oral Surgery III Credit: 1
This course is a continuation of the principles and techniques in Oral Surgery II, but now relates to more advanced forms of oral surgical patient care. The areas to be covered are the diagnosis, treatment planning and management of impacted teeth, surgical complications, pre-prosthetic surgery, maxillary sinus in disease/dentoalveolar surgery, odontogenic infections, odontogenic cysts and odontogenic tumors afflicting the maxillofacial structures.

DENT 6521C Periodontics Clinical I Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6522 Oral Surgery IV Credit: 1
This course is a continuation of DENT 6521 Oral Surgery III. This course is structured to help the student acquire a basic understanding of the advanced aspects of the specialty of Oral and Maxillofacial Surgery. This includes the process of diagnosis, surgical and adjunctive management of diseases, deformities and malformations of the oral cavity, jaws and associate structures. Moreover, this course also covered principles and techniques of sedation used in oral and maxillofacial surgery.

DENT 6524 Principles of Oral Medicine and Diagnosis Credit: 1
This course expands upon the student doctor's knowledge of oral medicine, diagnosis, and pathology, and its interrelationship at times with systemic disease. Dental management, treatment and the appropriate use of consultations and referrals are emphasized.

DENT 6526 Orthodontics I Credit: 1
Orthodontics I is a course designed to introduce the student to the field of orthodontics. The lecture will introduce the student to basic orthodontic terminology, description, diagnosis, and mechanotherapy. This course will prepare the student for the clinical treatment of patients needing limited tooth movement.

DENT 6526L Orthodontics I Laboratory Credits: 2
This is a course designed to introduce the student to the field of orthodontics. The laboratory enables the student to master the materials of orthodontics in order to complete diagnostic records, to construct fixed and removable appliances, and to be familiar with tooth movement mechanics. This course will prepare the student for clinical treatment of patients needing limited tooth movement.

DENT 6527 Pharmacology and Therapeutics I Credits: 2
An introduction into the mechanisms of action, pharmacodynamics and relevant pharmacokinetics for drugs prescribed and used by patients seen by the dentist. The course is administered through the Blackboard Course Management System and will involve live and/or recorded lectures directed at "mastery learning" of introductory pharmacology where students receive objectives, attend class, and complete reading assignments expected to assist in achieving a high level of mastery.

DENT 6531C Oral Diagnosis Clinical I Credits: 1-2
Clinical application of diagnostic principles. Students will complete a diagnostic competency examination on a selected patient.

DENT 6534 Advanced Prosthodontics Credit: 1
This course reviews advanced principals in Fixed and Removable Prosthodontics. Using evidenced based concepts, information will be presented to aid the student clinician make well informed clinical choices which will help prepare them for the use of prosthodontic techniques in the practice of general dentistry. A variety of materials, devices, and concepts will be presented. Making intelligent choices in the selection and use of these restorative materials and concepts will be a focus.

DENT 6537 Oral Oncology Credits: 0.5
A lecture course on oral oncology will deal with the biologic aspects of cancer; the detection of oral cancer and the different modalities of treatment of cancer; the dental aspects both from surgical reconstruction and prosthetic reconstruction following cancer surgery; and management of the patient prior to, during, and following radiation therapy to the head and neck and during chemotherapy for systemic cancer.

DENT 6538 Orthodontics II Credit: 1
This course will present a variety of topics related to orthodontics, such as: normal development, abnormal occlusal deviations during the developing permanent dentition, diagnosis and treatment planning of orthodontic problems, biomechanical principles in orthodontics, adolescent vs. adult orthodontics, peridontal health during orthodontic treatment, complications associated with orthodontic treatment and controversial aspect of orthodontics. You should also be able to recognize which kind of cases exceed the scope of limited treatment and may require intervention by a specialist.
DENT 6542C Operative Dentistry Clinical I Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6551CR Oral Surgery Clinical Credits: 2
This is a course for application of principles taught in didactic courses (DENT 6412, DENT 6439, DENT 6440, DENT 6521, DENT 6522, and DENT 6610) and the Oral Surgery Rotations. Oral Surgery Clinical is designed to prepare the dental student with the necessary didactic and clinical skills to properly evaluate patients and provide Oral Surgery care in a safe effective and caring manner and to evaluate competency in two areas: managing medical emergencies and oral surgical skills expected of a general dentist.

DENT 6556 Radiographic Interpretation Credit: 1
This is a comprehensive multidisciplinary course in radiologic interpretation of normal anatomy, anomalies, dental caries, periodontal disease, periapical pathology and infections of the maxilla and mandible.

DENT 6558C Treatment Planning I Credit: 1

DENT 6559 Diagnosis and Management of Orofacial Pain Credit: 1
Essential conceptual, clinical and technical information and skills necessary in the diagnosis and treatment of Orofacial Pain States. Diagnostic protocols and radiographic procedures and their integration as it relates to painful head and neck conditions are presented in depth. Differential diagnosis and special diagnostic techniques are also addressed. Behavioral factors associated with the development of chronic pain and complicating the management of pain states are identified and discussed.

DENT 6562C Removable Prosthodontics Clinical Credit: 1
This course reflects the clinical aspects of Removable Prosthodontics. The application of didactic learning and foundational skills is practiced and evaluated. By treating multiple and varied patients needing complete dentures and those needing removable partial dentures, the student should become competent to diagnose and treat the routine and uncomplicated edentulous and partially edentulous patient with removable prostheses.

DENT 6564 Pharmacology and Therapeutics II Credits: 2
This course will provide the background necessary for the dentist to become knowledgeable about the drugs their patients may be taking and their related medical conditions. Lecture topics include the diseases and medical conditions commonly seen in dental patients on an outpatient basis. The course presents the effects, mechanisms of action, dosage forms, and relevant pharmacokinetics for the drugs used in the management of these diseases. The course will cover the important side-effects of precautions of drugs that are pertinent to the dental patient for their safe management.

DENT 6566 Bridge Course Credits: 2
This course is designed as a lecture and clinical course to provide a transition into the clinical phase of the dental curriculum for the third year dental student.

DENT 6591C Professional Development I Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6592C Professional Development II Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6593C Professional Development III Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6595 Introduction To Implant Dentistry Credit: 1
To provide the undergraduate student with a solid background into the role of implant dentistry in their profession. Advances in technique and materials which are responsible for improved predictability will be presented. Emphasis will be on patient selection, treatment planning and basic restorative techniques. The student will be able to initiate uncomplicated dental implant procedures with this information and will be prepared to enter into more advanced continuing education and graduate programs in this subject.

DENT 6600 Review Of Clinical Dentistry Credits: 1-2
A summative review of the basic areas of clinical dentistry.

DENT 6601C Endodontics Clinical Credits: 1-2
Clinical application of principles taught in preceding terms.

DENT 6602 Grand Rounds II Credit: 1
This course is a continuation of Grand Rounds I and its aim is similar to Grand Rounds I: expand on the dental student's basic knowledge of critical review of scientific literature and information literacy. Students will present a Table Clinic at Midwest Dental Conference and prepare a proposal for their senior Grand Rounds presentation.

DENT 6603 Grand Rounds III Credit: 1
The fourth year Grand Round course is an independent study courses designed to develop the evidence-based research skills required to keep abreast of current concepts in dentistry; develop case documentation skills necessary for continued professional development, and develop professional public speaking skills.

DENT 6604 Grand Rounds IV Credit: 1
The fourth year Grand Round course is an independent study courses designed to develop the evidence-based research skills required to keep abreast of current concepts in dentistry; develop case documentation skills necessary for continued professional development, and develop professional public speaking skills.
DENT 6605 Review Of Clinical Dentistry II Credits: 0.5
A review of foundation knowledge for clinical dentistry.

DENT 6606C Pediatric Dentistry Clinical I Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6607C Pediatric Dentistry Clinical II Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6608C Pediatric Dentistry Clinical III Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6609C Comprehensive Patient Care III Credits: 1-10
Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist. This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skills through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6610C Comprehensive Patient Care IV Credits: 1-10
Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist. This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skill through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6611C Fixed Prosthodontics Clinical I Credits: 1-2
Clinical application of principles taught in preceding terms.

DENT 6613 Periodontal Treatment Planning Credit: 1

DENT 6614 Dentistry For The Special Patient Credits: 1-2
The purpose of this course is to acquaint the student with the dental treatment of three populations of patients who you may encounter in your dental career (and often have trouble finding adequate care). They include patients who are developmentally disabled, the elderly, and the medically-compromised. The course will present management techniques for in-office treatment and appropriate referral of those patients best treated in another setting. This course builds upon the skills and knowledge gained in previous courses in many disciplines, to provide an interdisciplinary experience with special patient populations. A required rotation at the Regional Center for the Developmentally Disabled gives practical experience to topics covered in lecture.

DENT 6614C Comprehensive Patient Care V Credits: 1-10
Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist. This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skill through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6615 Transitions: Introduction to the Profession & Practice of Dentistry VII Credit: 1
This is the seventh course in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course continues with the strategic planning framework and focuses on the development of a dental practice business plan.

DENT 6616 Transitions: Introduction to the Profession and Practice of Dentistry VIII Credits: 0.5
This course is a continuation of a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course allows fourth year dental students to apply concepts and principles presented in the previous practice management courses in the Innovation Center and in small group seminars. A series of small group seminars will allow for in-depth discussion of professional issues.

DENT 6617 Pediatric Dentistry Seminar Credits: 0.5
This course is designed to allow fourth year students to build on the concepts presented in DENT 6431. Using a seminar format, students will review pediatric dentistry concepts with emphasis on clinical application.

DENT 6621C Periodontics Clinical II Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6625 Oral Surgery Clinical II Credit: 1
Oral Surgery II is a continuation of Oral Surgery I and is designed to certify students' competency in oral surgery, including managing patient pain and anxiety, i.e. nitrous oxide-oxygen sedation

DENT 6626 Clinical Treatment Planning Credit: 1
This course builds on the didactic courses and clinical experiences in treatment planning. Each student will demonstrate competency in comprehensive treatment planning to earn credit in the course.
DENT 6633 Introduction To Dental Public Health Credit: 1
Discussion of contemporary issues in community health and community oral health with emphasis on preparing students for their roles as professional members of their communities.

DENT 6634 Community-Based Dental Education (CODE) I Credit: 1
The purpose of this course is to expose third and fourth year dental students to alternative methods of dental care delivery to populations at high risk for dental disease. Specifically the course places junior and senior students in an existing network of community health centers and rural outreach sites.

DENT 6635 Community-Based Dental Education (CODE) II Credit: 1
Prerequisites: DENT 6634, Completion of Third Year.

DENT 6636C Oral Radiology Clinical Credit: 1
Clinical application of those principles taught in preceding terms with emphasis on use of a variety of film holding devices. Radiographic quality assurance and darkroom maintenance will be reviewed during this course.

DENT 6642C Operative Dentistry Clinical II Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6650 Applied Ethics Credits: 0.5
Four or five case studies will be used during seminars. Basic ethical principles from DENT 6306 will be applied to the case studies. Two of the cases will involve ethical issues, and one of the cases will add community dentistry issues. Other cases will be used as generated or suggested by each seminar group.

DENT 6656C Orthodontic Clinical I Credit: 1
The purpose of this course is to allow each student to develop the skills, knowledge and values to diagnose potential or actual malocclusions and manage patient who need orthodontic intervention.

DENT 6690 Independent Study in Dentistry Credits: 1-6
This course provides students the opportunity to undertake independent study projects in specific areas of dentistry. Course may be repeated.

DENT 6691C Professional Development IV Credits: 1-3
Clinical application of those principles taught in preceding terms.

DENT 6692C Professional Development V Credits: 1-2
Clinical application of those principles taught in preceding terms.
Admission Information

Any college student or graduate can apply for admission to the four-year doctor of dental surgery program. A student should be a U.S. citizen or permanent resident of the U.S. (the only exception is for students considered through the school’s agreement with the State of Kuwait). Priority is given to Missouri residents. The School also has contractual or other agreements with the states of Kansas, Arkansas, New Mexico and Hawaii to consider qualified residents for acceptance from those states. Preferred consideration will be given to applicants who are residents and high school graduates of the states listed. Applications from other states are welcome and are considered on an individual basis for highly qualified candidates.

Candidates may be considered for acceptance after successful completion of a minimum of 90 hours of college credit. After completion of a minimum of 120 hours of college credit, the accepted applicant will be eligible to enroll in the School of Dentistry. All candidates for this program are encouraged to complete a baccalaureate degree before entry. In fact, college degree-holders with a broad educational background are the preference of the Dental Student Admission Committee.

Admission is on a selective basis and requires more than meeting course or college-hour requirements. Factors considered in the selection process are the candidates’ academic credentials, including Dental Admission Test (DAT) scores, letters of evaluation, personal interview, evidence of the subjective criteria identified in a later section, and all other information submitted by the candidates. Approximately 109 candidates are admitted to the D.D.S. program annually.

Those who want to apply for admission must apply online through the AADSAS Application Service administered by the American Dental Education Association at http://www.adea.org/. Candidates must submit applications no later than Oct. 1 of the year prior to desired enrollment. Sept. 1 is the UMKC preference deadline date for UMKC to receive application materials. Be aware that approximately 4-8 weeks are required by AADSAS to process applications and deliver them to the dental school.

Counseling by the School of Dentistry’s admissions staff is available to those interested in applying for admission. It is advisable to seek this counseling early in the undergraduate program.
GPA/College Hour Minimums

The following are the Dental Student Admission Committee’s guidelines for GPA/college semester credit hour/Dental Admission Test (DAT) minimums and preferences:

- Preference will be given to candidates with 90 or more semester hours of college credit at the time of application with a science GPA of 3.40 or higher and/or a DAT academic average of 17 or higher.
- A candidate with 90 or more semester hours of college credit at the time of application with a science GPA of 3.00 and a DAT academic average of 16 or higher can be considered for an interview.
- It should be noted that no more than 60 hours of college credit can be earned at a community college and preference will be given to candidates who complete the science prerequisites at a four-year institution.

A broad liberal education culminating in a bachelor’s degree is strongly encouraged of applicants seeking admission into this program. Recent history indicates that admission of a candidate who does not have a B.S./B.A. degree or who is not likely have one at the time of enrollment in the D.D.S. program is rather rare.
Pre-Dental Course Requirements

There is no required college major for admission to the School of Dentistry. However, certain courses are required prior to entering. Strong academic performance is expected with minimal acceptable performance of a 'C' in lectures and labs.

Biology
A minimum of four semesters of biology with labs. In particular, we require general biology I, anatomy, physiology and cell biology. Other courses that have counterparts in the dental curriculum (i.e., histology, neuroscience, microbiology) are strongly recommended.

Chemistry
A minimum of two semesters of general chemistry with labs (Chemistry I and Chemistry II).

A minimum of two semesters of organic chemistry with labs (Organic Chemistry I and Organic Chemistry II).

A minimum of one semester of biochemistry (lab is recommended but not required).

Physics
A minimum of two semester of physics with labs (Physics I and Physics II).

English
A minimum of 6 credit hours of English composition. (Courses in speech are not acceptable as substitutes for English composition.)

Other
It is advantageous to have course credit in mathematics, formal logic, histology, business, social/behavioral sciences (such as psychology), communication skills, computer science, the humanities and applied arts (such as sculpting, drawing, etc.).
Dental Admission Test

All dental school applicants must take the Dental Admission Test (DAT) administered by the American Dental Association. The DAT is given throughout the year by computer at designated testing centers, and a score must be submitted to be fully considered.

DAT scores are based on a range of 1 to 30, with 19.0 generally being the national average of accepted dental students. The Dental Student Admission Committee requires a minimum DAT score of 16, but prefers that a candidate’s DAT scores be 17 or higher to be considered for admission.

For more information or to request a DAT application go to http://www.ada.org. Contact the School of Dentistry’s Office of Student Programs at (816) 235-2080 (local) or (800) 776-8652 (toll-free) to learn about our online DAT Prep Course.
Personal Interview

A personal interview at the School of Dentistry is required of applicants completing the necessary college hours, grade-point average and DAT requirements. The interview is by invitation only, an applicant for admission may not request it.
Candidate Subjective Criteria

When considering candidates for possible admission, the UMKC School of Dentistry's Dental Student Admission Committee (DSAC) reviews the entire scope of information that is available on each applicant. For each candidate the sources of this information include the academic record (i.e., overall GPA, science GPA and Dental Admission Test scores), AADSAS essay, responses to items on the UMKC School of Dentistry's Application Survey, letters of reference, interview assessment, and any other information provided by the candidate (e.g., personal statement). Specifically, the committee will expect evidence of the following factors in making the difficult choices among candidates:

1. Demonstrated investigation of the profession of dentistry. It is strongly suggested that candidates observe in a minimum of five different dental offices (the offices of general dentists and specialists) and acquire a minimum of 80-100 hours of dental office observation, preference is given to candidates who have worked in a dental office.
2. Evidence of social conscience and compassion (i.e., caring attitude, sensitivity to those in need, significant community activities). It is strongly suggested that this be active and ongoing participation in volunteer activities.
3. Indication of fundamental personal character (i.e., integrity, maturity, self-reliance, leadership skills).
4. Evidence of critical thinking and problem solving ability (e.g., performance in courses requiring this skill such as in laboratory segments, in formal logic or in research experiences).
5. Significant and sustained level of academic achievement based on full course loads with evidence of a broad science and liberal arts education (i.e., fine arts, business, mathematics, humanities, computer science, etc.).
6. Established effective interpersonal/communication skills (i.e., an ability to communicate orally and in writing, a capacity to listen, a personality conducive to forming personal and/or professional relationships, an involvement in a range of extracurricular activities, especially those in which significant leadership roles have been taken).
7. Demonstrated ability to balance full academic schedules with extracurricular involvement and/or employment (i.e., effective/efficient management of time).

Because the Dental School Admission Committee looks closely at information from all sources included in an applicant's file, it is in the candidate's best interest that this information is consistent among sources. This is especially true with information supplied directly by the candidate (i.e., AADSAS essay, UMKC School of Dentistry's Application Survey, interview and/or personal statement). You are strongly encouraged to review all written materials for consistency and accuracy before submission.

Finally, before developing these written materials, the candidate is strongly encouraged to honestly and critically assess himself/herself on all the qualities identified. Following this process, the candidate is urged to review drafts of these documents collectively (e.g., to check for completeness, accuracy and consistency) and to evaluate himself/herself comprehensively as if he/she were a member of the Dental Student Admission Committee. Where the candidate feels a question may arise from Committee review, the applicant is encouraged to address this in a personal statement/letter to the Committee.
Technical Standards

The dental degree signifies that the holder is a dentist who has received sufficient training in dental education to practice dentistry. It follows that graduates must have acquired and demonstrated the knowledge, skills and abilities to function in a broad variety of clinical situations and to render a wide spectrum of dental care.

While each application is reviewed individually, it is necessary that each candidate be able to observe and perform each task required by the curriculum of the school. Similarly, the school does not consider the waiver of required examinations a reasonable accommodation for individuals with learning disabilities. Learning disabled students, when appropriate, may be granted additional time on required examinations, be examined in separate testing facilities, or accommodated in other reasonable ways, but they will not be exempted from the requirement to take and pass such examinations. (Candidates with disabilities should contact the UMKC Office of Services for Students with Disabilities for information regarding definition and requirements for documentation of learning disabilities.)

Candidates for admission into the D.D.S. program must possess abilities and skills in the following areas to satisfactorily complete the curriculum:

Observation
Candidates must be able to accurately observe laboratory experiments, preclinical demonstrations, clinical laboratory procedures and patient-care activities.

Communication
Candidates must be able to communicate effectively and sensitively with patients and with all members of the health care team.

Motor
Candidates must have physical dexterity to master all aspects of patient care. They must be able to execute motor movements required to arrive at a diagnosis and treatment plan, and to provide patient care, including emergency treatment.

Intellectual-Conceptual, Integrative and Quantitative Abilities
A candidate must have intellectual-conceptual, integrative and quantitative abilities that include measurement, calculation, reasoning, analysis and synthesis. Problem solving, one of the critical skills demanded of dentists, requires all of these intellectual abilities. In addition, the candidate must be able to comprehend three-dimensional relationships and understand the spatial relationship of structures.

Emotional and Behavioral Attributes
In addition to these skills, candidates must possess the high moral and ethical standards demanded of dentists and must possess the capability required for full utilization of intellectual abilities, the exercise of good judgment, the prompt completion of responsibilities attendant to the diagnosis, treatment planning and care of patients, and the development of mature, sensitive and effective professional relationships with patients. Candidates must be able to cope with taxing workloads and to function effectively under stress. A candidate must also be able to adapt to changing environments, to display flexibility and to learn to function in the face of uncertainties in the clinical problems of many patients. In addition, personal qualities such as compassion, integrity, concern for others, interpersonal skills, interest and motivation should be assessed during the admissions and education processes. Technological accommodation can be made for some inadequacies in certain areas, but a candidate must be able to perform in a reasonably independent manner.
Notification of Admission

Applications for admission are reviewed by the Dental Student Admission Committee. In accordance with the guidelines of the American Dental Education Association, no notification of the admission decision is made to a candidate before Dec. 1 of the current admissions cycle.

Formal Notification

After a decision is reached on an applicant, notifications will be sent to each candidate. Accepted candidates have 30 days from the date of an acceptance letter to make a required nonrefundable $200 deposit. If notification of acceptance is made after Feb. 1, the candidate must submit the deposit within 15 days of the date of acceptance.

Several individuals are placed on a list of alternates. In the event that a position becomes available, an applicant from this list is chosen to fill the vacancy.

Denied applicants who are interested in reapplying should make an appointment with the School of Dentistry director of admissions to discuss the reason for the denial. Advice will be offered to applicants to enhance their future applications.
Minority Recruitment Program

The School of Dentistry has an active recruitment program to encourage and assist qualified minority students, particularly those from under-represented groups in the dental profession, to pursue careers in dentistry. Native Americans, African Americans and Hispanics are strongly encouraged to seek admission to the school. Students desiring information should contact John Cottrell or cottrellj@umkc.edu, the Director of Minority Recruitment and Special Programs within the Office of Student Programs (816) 235-2080.
Reserved Admission Program

The Reserved Admission Program for the Doctor of Dental Surgery degree at the UMKC School of Dentistry enables highly motivated, ambitious, talented students to pursue their dream of becoming a dentist. Entry into the program is available to students from Missouri and Kansas who are in the early years of their undergraduate education.

This program is composed of three stages with the first two stages requiring formal application and review. The first stage is application and acceptance as a Provisional Reserved Admission Program Student. This step may be accomplished immediately following the completion of a minimum of but not more than four semesters of college credit with a cumulative 3.6 science and math GPA while being continuously enrolled in full-time course loads. In the second stage, provisional reserved admission program students meet additional objective and subjective criteria to move to full acceptance at the end of their undergraduate junior year. Students with full admission into the Reserved Admission Program are assured a seat in the D.D.S. class matriculating in August following the completion of their undergraduate studies, provided they meet the criteria for maintaining their status. The third stage is matriculation at the School of Dentistry.

For more information about this program or to request an application, contact the School of Dentistry's Office of Student Programs. (816) 235-2080 or dds@umkc.edu.
Disability Services

Federal law prohibits UMKC and the School of Dentistry from making pre-admission inquiry about disabilities. Information regarding disabilities given voluntarily or received inadvertently will not adversely affect any admission decision. Any accepted applicant requiring special services because of disability should notify the Office of Services for Students with Disabilities for accommodation services (816-235-5696).
Dental Education Curriculum Mission

The mission of the Doctor of Dental Surgery program is to graduate a dentist who can deliver patient care with a scientific basis and a caring manner. Through the integration of the biomedical, behavioral, and clinical sciences, the graduate dentist will be able to function effectively as the leader of the oral health care team to provide comprehensive oral health care for diverse populations in a constantly changing society. Graduates must be able to use the skills of problem solving, decision-making and evaluation so that behaviors and practices are derived from intentional choices. They must become lifelong learners, directing their professional growth during and beyond the educational programs.
Graduation Requirements

D.D.S. Degree

1. Satisfactory completion of all program requirements (program competencies and course requirements).
2. A cumulative grade point average of 2.5 or higher for the student's period as a dental student.
3. A passing grade on Part I and Part II of the National Board Dental Examinations.
4. Demonstrate the ability to meet the standards of professional conduct.
Program Requirements

Student Learning Outcomes

The student learning outcomes (competencies) listed below are the minimum levels of performance that are expected of the dentist graduate of UMKC School of Dentistry. Due to special interests, experiences and opportunities many students may exceed these expectations in various areas. However, every dental student must demonstrate competence as described below to graduate.

- Apply the fundamental principles of the biomedical and behavioral sciences as they relate to the promotion and provision of oral health care.
- Apply legal, ethical and regulatory principles to the provision of oral health care, including practice management.
- Apply interpersonal and communication skills to empathetically and effectively care for diverse patient populations and function in the health care environment.
- Apply critical thinking and problem solving skills to provide evidence-based patient-centered care.
- Evaluate various models of oral health management and care delivery.
- Participate in improving the oral health of individuals, families, and groups in the community through oral health promotion, education and interaction with other health professions.
- Manage medical emergencies and complications that may occur during dental treatment.
- Recognize and manage pain and anxiety, trauma, hemorrhage, and infection of the orofacial complex by selection, administration or prescription of pharmacological or non-pharmacologic agents in the treatment of dental patients.
- Demonstrate competence in providing oral health care within the scope of general dentistry for children, adolescents, adults, and special needs patients. This includes:
  - Perform a complete dental examination to arrive at a diagnosis, risk assessment and prognosis of the patient's oral condition/s.
  - Develop, present and implement an integrated treatment plan, including the risks and benefits of various options, to address a patient's oral health needs.
  - Prevent, identify and manage periodontal conditions.
  - Prevent, identify and manage pulpal and periradicular conditions.
  - Identify and manage patients with oral surgical needs.
  - Identify and manage malocclusions (including management of space/s).
  - Manage restorative procedures for single defective teeth, or to restore function in patients with partial or complete edentulism.
  - Treat patients with oral mucosal and osseous disorders and oral manifestations of systemic diseases.
  - Evaluate outcomes of treatment, including recall strategies, and prognosis.
- Demonstrate the ability to self-assess competency and plan for lifelong learning.

Program Requirements

The school offers a four-year, eight-semester, two-summer-term curriculum leading to the doctor of dental surgery (D.D.S.) degree. This curriculum is designed to prepare graduates in dentistry to deliver patient care with a scientific basis and a caring manner. As such, it provides a sound background in the biomedical, behavioral and clinical sciences with an emphasis on comprehensive oral health care. Exposure to clinical dentistry in the first semester of the first year is a hallmark of this curriculum.

The first year of dental school focuses on instruction in the biomedical sciences that provide a foundation for clinical studies. The first-year student also studies introductory courses in oral diagnosis, preventive periodontics and dental restorative techniques in a pre-clinical setting. Early clinical exposure is further emphasized through clinic-based courses in both the first and the second semesters. Acquisition of basic diagnostic skills and background knowledge is a goal of the first year of the curriculum.

Biomedical science courses extend into the second year; however, the major thrust of the second year is devoted to pre-clinical technique coursework of increasing complexity. In the preclinical laboratory courses, students continue learning the fundamental procedures of dentistry: operative dentistry, prosthodontics (fixed and removable), and endodontics. Clinically, students are introduced to the basic essential skills needed in preventive periodontics. Classroom lecture sessions are also conducted in each of these areas of dentistry along with didactic courses in periodontics, oral diagnosis, oral radiology, and oral surgery.

The primary emphasis of the third year of the curriculum is the clinical practice of dentistry. The general clinic is organized into subunits called teams. Each team includes an established set of faculty and staff. Patients are assigned to students for comprehensive care, from diagnosis and treatment planning through procedures necessary for successful case completion. While the emphasis of the third and fourth years of the dental curriculum is gaining clinical experience, students also attend advanced classes in periodontics, prosthodontics, oral surgery, orthodontics, pediatric dentistry, operative dentistry and oral diagnosis/oral medicine.

The fourth year involves extensive clinical practice. There are a few seminar sessions and formal courses (e.g., practice management), but the student's major responsibility is to perfect diagnostic, patient-management and technical-treatment skills and demonstrate competence in all the skills required by the faculty of the School of Dentistry.
An outline of the four-year curriculum by semester is given below.

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<tr>
<th>Code</th>
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<td>BMS 9300</td>
<td>Human Gross Anatomy I</td>
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<td>DENT 6317</td>
<td>Fundamentals of Occlusion and Fixed Prosthodontics</td>
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<td>DENT 6350</td>
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<td>Oral Radiology Lecture</td>
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<td>DENT 6435</td>
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<td>DENT 6436</td>
<td>Orthodontics: Growth And Development</td>
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<td>DENT 6420</td>
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<td>DENT 6424</td>
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<td>DENT 6431</td>
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<td>Medical Emergencies in the Dental Office</td>
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### Program Requirements

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<td>DENT 6527</td>
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<td>DENT 6556</td>
<td>Radiographic Interpretation</td>
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<td>Introduction To Implant Dentistry</td>
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### Year III

#### Fall

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<td>DENT 6521</td>
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<td>Principles of Oral Medicine and Diagnosis</td>
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<td>DENT 6531C</td>
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<td>DENT 6520</td>
<td>Transitions: Introduction to the Profession &amp; Practice of Dentistry VI</td>
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<tr>
<td>DENT 6522</td>
<td>Oral Surgery Lecture III</td>
<td>1</td>
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<tr>
<td>DENT 6534</td>
<td>Advanced Predoctoral Prosthodontics</td>
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<tr>
<td>DENT 6559</td>
<td>Diagnosis and Management of Orofacial Pain</td>
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<tr>
<td>DENT 6564</td>
<td>Pharmacology and Therapeutics II</td>
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<tr>
<td>DENT 6602</td>
<td>Grand Rounds II</td>
<td>1</td>
</tr>
<tr>
<td>DENT 6633</td>
<td>Introduction To Dental Public Health</td>
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<tr>
<td>DENT 6634</td>
<td>Community-Based Dental Education (CODE) I</td>
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<tr>
<td>DENT 6510C</td>
<td>Comprehensive Patient Care II</td>
<td>4</td>
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<tr>
<td>DENT 6521C</td>
<td>Periodontics Clinical I</td>
<td>1</td>
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<tr>
<td>DENT 6542C</td>
<td>Operative Dentistry Clinical I</td>
<td>1</td>
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<tr>
<td>DENT 6551CR</td>
<td>Oral Surgery Clinical</td>
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<tr>
<td>DENT 6592C</td>
<td>Professional Development II</td>
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<tr>
<td>DENT 6606C</td>
<td>Pediatric Dentistry Clinical I</td>
<td>1</td>
</tr>
<tr>
<td>DENT 6636C</td>
<td>Oral Radiology Clinical</td>
<td>1</td>
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#### Summer

<table>
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<tr>
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<tbody>
<tr>
<td>DENT 6613</td>
<td>Periodontal Treatment Planning</td>
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<tr>
<td>DENT 6617</td>
<td>Pediatric Dentistry Seminar</td>
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<tr>
<td>DENT 6650</td>
<td>Applied Ethics</td>
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<tr>
<td>DENT 6593C</td>
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# Comprehensive Patient Care III

**Total Credits**: 50

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<tr>
<td>DENT 6429</td>
<td>Dental Behavioral Science II</td>
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<td>DENT 6514</td>
<td>Pathology III Lecture</td>
<td>1</td>
</tr>
<tr>
<td>DENT 6603</td>
<td>Grand Rounds III</td>
<td>1</td>
</tr>
<tr>
<td>DENT 6614</td>
<td>Dentistry For The Special Patient</td>
<td>2</td>
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<tr>
<td>DENT 6615</td>
<td>Transitions: Introduction to the Profession &amp; Practice of Dentistry VII</td>
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<tr>
<td>DENT 6626</td>
<td>Clinical Treatment Planning</td>
<td>1</td>
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<tr>
<td>DENT 6635</td>
<td>Community-Based Dental Education (CODE) II</td>
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<td>DENT 6607C</td>
<td>Pediatric Dentistry Clinical II</td>
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<td>DENT 6610C</td>
<td>Comprehensive Patient Care IV</td>
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<tr>
<td>DENT 6691C</td>
<td>Professional Development IV</td>
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**Year IV**

**Fall**

<table>
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<tr>
<td>DENT 6600</td>
<td>Review Of Clinical Dentistry</td>
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<tr>
<td>DENT 6604</td>
<td>Grand Rounds IV</td>
<td>1</td>
</tr>
<tr>
<td>DENT 6605</td>
<td>Review Of Clinical Dentistry II</td>
<td>0.5</td>
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<tr>
<td>DENT 6562C</td>
<td>Removable Prosthodontics Clinical</td>
<td>1</td>
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<tr>
<td>DENT 6601C</td>
<td>Endodontics Clinical</td>
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<tr>
<td>DENT 6608C</td>
<td>Pediatric Dentistry Clinical III</td>
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</tr>
<tr>
<td>DENT 6611C</td>
<td>Fixed Prosthodontics Clinical I</td>
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<tr>
<td>DENT 6614C</td>
<td>Comprehensive Patient Care V</td>
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<td>DENT 6621C</td>
<td>Periodontics Clinical II</td>
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<tr>
<td>DENT 6625</td>
<td>Oral Surgery Clinical II</td>
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<td>DENT 6642C</td>
<td>Operative Dentistry Clinical II</td>
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</tr>
<tr>
<td>DENT 6656C</td>
<td>Orthodontic Clinical I</td>
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</tr>
<tr>
<td>DENT 6692C</td>
<td>Professional Development V</td>
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**Spring**

<table>
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<th>Code</th>
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<tbody>
<tr>
<td>DENT 6609C</td>
<td>Comprehensive Patient Care III</td>
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</table>

**Total Credits**: 192
Cost Estimates

The estimated cost (exclusive of living costs) for the four-year D.D.S. curriculum at the School of Dentistry is $188,600. The amount is based on fees established and costs existing at the time of printing. This is itemized by type of expense and by year.

**Note:** Educational fees and books/equipment costs are subject to change without notice.

### First Year (Fall and Spring Semesters)

<table>
<thead>
<tr>
<th>Expenses</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>Books, Equipment and Supplies</td>
<td>$10,340</td>
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<tr>
<td>Educational Fees (Resident)</td>
<td>$33,207</td>
</tr>
<tr>
<td><strong>First-Year Total</strong></td>
<td><strong>$43,547</strong></td>
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### Second Year (Fall and Spring Semesters)

<table>
<thead>
<tr>
<th>Expenses</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books, Equipment and Supplies</td>
<td>$10,080</td>
</tr>
<tr>
<td>Educational Fees (Resident)</td>
<td>$33,320</td>
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<tr>
<td>National Dental Board Exam-Part I</td>
<td>$395</td>
</tr>
<tr>
<td><strong>Second-Year Total</strong></td>
<td><strong>$43,795</strong></td>
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### Third Year (one 13-week Summer term plus Fall and Spring Semesters)

<table>
<thead>
<tr>
<th>Expenses</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books, Equipment and Supplies</td>
<td>$8,662</td>
</tr>
<tr>
<td>Educational Fees (Resident)</td>
<td>$41,064</td>
</tr>
<tr>
<td><strong>Third-Year Total</strong></td>
<td><strong>$49,726</strong></td>
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### Fourth Year (one 13-week Summer term plus Fall and Spring Semesters)

<table>
<thead>
<tr>
<th>Expenses</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books, Equipment and Supplies</td>
<td>$8,062</td>
</tr>
<tr>
<td>Educational Fees (Resident)</td>
<td>$41,030</td>
</tr>
<tr>
<td>National Dental Board Exam-Part 1I/Clinical Board Exam</td>
<td>$2,440</td>
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<tr>
<td><strong>Fourth-Year Total</strong></td>
<td><strong>$51,532</strong></td>
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<table>
<thead>
<tr>
<th>Expenses</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td><strong>Four-Year Total</strong></td>
<td><strong>$188,600</strong></td>
</tr>
</tbody>
</table>

Non-resident students are assessed an additional $15,679 each fall and spring semester and $7,840 for each of the two summer terms.

Agreements are in place for residents of Kansas, Arkansas, New Mexico and Hawaii to receive waivers of the non-resident fees.

### Tuition/Fee Policy for Elective Coursework Outside the School of Dentistry

The dental “flat-rate” tuition and fees only applies to required courses within the DDS program. Dental students who elect to enroll in courses other than those required as part of the DDS curriculum will pay tuition and fees for those courses.

A dental student’s primary academic responsibility is successfully meeting the curricular expectations of the DDS program. Any coursework taken outside the curriculum requires that a student is in good standing and must be pre-approved by the Associate Dean for Academic Affairs.

Elective enrollment in coursework outside the School of Dentistry is not suggested during fall & spring semesters in years 1 & 2. Additionally enrollment in courses other than dental courses during preparation for National Board Part 1 (Spring D2) and National Boards Part II (Fall D4) should be limited.

Dental students considering course work outside the dental curriculum should also consider the financial aid implications of the additional course work. Students should work closely with the Student Financial Aid Office. The student would only be eligible for DDS financial aid, although Grad Plus loans may be available to select students.
Student Organizations/Activities

For students interested in extracurricular activities, there are a variety of student organization with a focus on professional service and development. Most are affiliated with national dental organizations. Students may also participate in other non-dentistry oriented organizations.

Active student organizations within the school include:

- Academy of LDS Dentists
- American Academy Cosmetic Dentistry
- American Academy of Pediatric Dentistry
- American Association for Dental Research-Student Research Group
- American Association of Women Dentists
- American Student Dental Association
- Christian Medical-Dental Association
- Delta Sigma Delta Fraternity
- Hispanic Dental Association
- Interfraternity Council
- Psi Omega Fraternity
- Student American Dental Hygienist’s Association
- Student National Dental Association
- Student Professionalism & Ethics Association
- Students Take Action
- UMKC Chapter of the Academy of LDS Dentists
- UMKC Student Council
- Xi Psi Phi Fraternity
School of Education

About the School of Education (p. 1061)
Undergraduate Programs (p. 1077)
Graduate Programs (p. 1135)
Special Programs and Centers (p. 1183)
Division of Continuing and Professional Education (p. 1184)

Faculty

Carolyn Barber\(^2,3\) Contact Information (http://education.umkc.edu/our-school/people/cep-directory/cbarber); associate professor of educational psychology; B.A. (Johns Hopkins University); M.A. and Ph.D. (University of Maryland-College Park).

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Joseph Paris Contact Information (http://conservatory.umkc.edu/faculty.cfm?f=22%2522T%20%0A); professor of music (music education, instrumental music); B.M. (State University College of New York at Potsdam); M.M. (Florida State University); Ph.D. (Florida State University).

Uzziel Pecina Contact Information (http://education.umkc.edu/our-school/people/educational-leadership-policy-foundations-directory/upecina); teaching assistant professor; B.A., M.S.Ed. (Kansas State University); Ed.D. (University of Missouri-Columbia).

Cynthia Pemberton Contact Information (http://www.umkc.edu/provost/about); deputy provost for academic affairs, and professor of education; B.S. (Missouri State University); M.S. (Kansas State University); Ph.D. (University of Illinois).

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Laurel Watson Contact (http://www.umkc.edu/lookup/details.cfm?id=%28%26%2D%5EP4%25W%5DD%20%0A) Information (http://www.umkc.edu/lookup/details.cfm?id=%28%26%2D%5EP4%25W%5DD%20%0A); assistant professor of Counseling & Educational Psychology; B.A. (University of Georgia); M.S., Ph.D. (Georgia State University).

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Professor Emeriti

Susan A. Adler; professor emeritus of education; B.A. (State University of New York-Buffalo); M.A., Ph.D. (University of Wisconsin).

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Linda Edwards; dean emeritus, school of education, and professor emeritus of education; B.A. (University of Missouri-Kansas City); M.S. Ed., Ed.D. (University of Kansas).

Cheryl Grossman; associate professor emeritus of education; B.A. (Long Island University); M.A. (New York University); Ph.D. (University of Iowa).

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Laurel Watson Contact (http://www.umkc.edu/lookup/details.cfm?id=%28%26%2D%5EP4%25W%5DD%20%0A) Information (http://www.umkc.edu/lookup/details.cfm?id=%28%26%2D%5EP4%25W%5DD%20%0A); assistant professor of Counseling & Educational Psychology; B.A. (University of Georgia); M.S., Ph.D. (Georgia State University).

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Robert E. Leibert; professor emeritus of education; B.S. (State University of New York-New Paltz); M.S. (University of Pennsylvania); Ed.D. (Syracuse University).

Daniel Urey Levine; professor emeritus of education; B.A., M.A., Ph.D. (University of Chicago).

Malcolm E. Linville; professor emeritus of education; B.A., M.A., Ph.D. (University of Missouri-Kansas City).

Kathryn E. Loncar; associate professor emeritus of education; B.M.Ed. (Saint Mary College); M.A., Ph.D. (University of Missouri-Kansas City).

Frank W. Neff; associate professor emeritus of education; B.A., M.S. (Indiana University); Ed.D. (Columbia University).

Ann Pace; associate professor emeritus of education; B.A., M.S.Ed. (University of Pennsylvania); Ph.D. (University of Delaware).

Robert D. Paul; associate professor emeritus of education; B.S. (South Dakota State University); M.Ed., Ed.D. (University of Florida).

Dennis Schemmel; associate professor emeritus of education; B.A. (Loras College); M.Ed. (Marquette University); Ph.D. (Ohio University).

John K. Sherk, Jr.; professor emeritus of education; B.S. (Pennsylvania State University); M.S. (Temple University); Ph.D. (Syracuse University).

Dianne Smith; professor emeritus of education; B.S., M.Ed. (Winthrop College); Ph.D. (Miami University).

William C. Smith; professor emeritus of education; A.B. (St. Benedict’s College); M.S. (Kansas State University); Ph.D. (University of Missouri-Kansas City).

George D. Spear; associate professor emeritus of education; B.A. (Baker University); M.A. (University of Missouri-Kansas City); Ph.D. (University of Michigan).

Sue Vartuli; associate professor emeritus of education; B.S. (State University of New York-Oneonta); M.S., Ph.D. (Ohio State University).

1. Associate or Adjunct Graduate Faculty
2. Members of UMKC Graduate Faculty
3. Members of UMKC Doctoral Faculty
4. Located at UM-St. Louis campus

Undergraduate

• Bachelor of Arts: Early Childhood Education
• Bachelor of Arts: Elementary Education
• Bachelor of Arts in Middle School Education
• Bachelor of Arts in Secondary Education

Graduate

• Graduate Certificate Programs
  • Graduate Certificate in Reading Intervention (p. 1168)
  • Graduate Certificate in Culturally Responsive Pedagogy

• Master of Arts: Counseling and Guidance
  • Couples and Family Counseling
  • Mental Health Counseling
  • School Counseling

• Master of Arts: Educational Administration
  • Emphasis Area: School (Grades PK-12) Administration
  • Emphasis Area: Higher Education

• Master of Arts: Curriculum and Instruction
  • Emphasis Area: General
  • Emphasis Area: Early Childhood
  • Emphasis Area: Elementary
  • Emphasis Area: Subject Matter
  • Emphasis Area: Multicultural Education
  • Emphasis Area: Teaching English as a Second Language

• Master of Arts: Language and Literacy
- Master of Arts: Special Education
- Educational Specialist: Educational Administration
- Educational Specialist: Counseling and Guidance
- Educational Specialist: Curriculum and Instruction
- Educational Specialist: Language and Literacy
- Educational Administration, Ed.D.
- Counseling Psychology, Ph.D.
- Interdisciplinary, Ph.D. (p. 1225)

**Counseling Psych Counselor Ed Courses**

**CPCE 230 Effective Interpersonal Communication Credits: 3**
Theory, and research on interpersonal relationships; students will learn effective communication skills, including understanding verbal and nonverbal behavior, listening, and empathy.

**CPCE 400 Intro to Counseling Psychology Credits: 3**
This course will provide an overview of the profession of counseling psychology. Presentations and assignments with the origins and history of counseling psychology, research and intervention strategies used by counseling psychologists, and current trends in the field. It is important to note that although counseling strategies will be reviewed, this course will not focus on developing or practicing counseling skills.
**Prerequisites:** 6 hours in psychology, including PSYCH 210, or be advanced students in Education.

**CPCE 425 Positive Psychology Credits: 3**
Introduction to current theory and empirical research in positive psychology. Topics explored include happiness, self-esteem, empathy, friendship, optimism, love, achievement, strengths, mindfulness, spirituality, and hope.

**CPCE 5500 Introduction To Professional Counseling Credits: 3**
This course introduces students to the professions of counseling and counseling psychology as practiced in a variety of settings. The course provides an overview of basic concepts of mental health, client problems, history of the profession, ethical and professional standards, counseling in a multicultural and pluralistic society, and licensure and credentialing. The course also orients students to the counseling program at UMKC. May be taken prior to admission.

**CPCE 5502 Fndtns Of Elementary & Secondary School Counseling & Guidance Credits: 3**
The course will present an overview of theory and practice in the field of school counseling and will examine the roles and functions of guidance counselors. For School Counseling Emphasis only.

**CPCE 5503 Psychopathology: Diagnoses And Classification Credits: 3**
This course is designed to provide students with an opportunity to study psychopathological patterns, mental disorders, and other reactions in client behavior, which are encountered by therapists, counselors, and psychologists in contemporary psychological service systems. The major focus of the course will be on learning current diagnostic criteria and making differential diagnoses. Attention will also be given to the etiology, development, dynamics, and treatment of psychopathology. In addition, the influence of culture on behavior and treatment will be discussed.
**Prerequisites:** CPCE 5500.

**CPCE 5504 School Guidance Programs Credits: 3**
This course will provide knowledge and skills in the development and management of school guidance programs, including program planning, implementing and evaluation.

**CPCE 5505 Career Development I Credits: 3**
Theories of career development and vocational choice and their implications in counseling. Emphasizes knowledge of occupational and career information sources and use of these data by counselors and counseling psychologists. Open to any student who has been admitted to an advanced degree program.

**CPCE 5515 Assessment Methods In Professional Counseling Credits: 3**
This course provides an understanding of assessment process and assessment techniques. Students will develop skills in selection, administration, and interpretation of representative assessment instruments.
**Prerequisites:** CPCE 5500.

**CPCE 5520 Theories of Counseling Credits: 3**
Theoretical positions in counseling; significance of these theories in professional practice. To be taken prior to CPCE 5531.
**Co-requisites:** CPCE 5500, CPCE 5530.

**CPCE 5521 Special Counseling Methods - Substance Abuse Credits: 3**
Theories and methods of counseling as applied to clients with substance abuse problems. Includes assessment, treatment strategies, and evaluation. Skills practice in implementing methods.
CPCE 5523 Counseling the Older Adult Credits: 3
This course provides an overview of the basic biological, psychological and social aspects of later life as preparation for counseling the diverse older adult population. Current evidence-based theory related to this specific population is presented along with refinement of interpersonal and counseling skills to support counseling intervention with older adults and their families in the multiple contexts they are served. Best practice examples for meeting the needs and providing mental health services to older adults are reviewed.

CPCE 5527 Theory And Methods Of Sexual Counseling Credits: 3
The focus of this course is on sexual development and the acquisition of therapeutic skills to work with problems relating to human sexual functioning and sexual dysfunctions.

Co-requisites: CPCE 5520.

CPCE 5528 Introduction to Play Therapy Credits: 3
Course covers the philosophy and rationale for using play media in counseling with children and the history of play therapy. The client-centered theoretical approach will be examined with an emphasis on creating and maintaining a relationship with the child that allows for the effective use of play media.

CPCE 5530 Methods Of Counseling Credits: 3
This course is designed to introduce students to the fundamental concepts and methods of counseling. Students will apply ethical and multicultural principles to the helping relationship while learning the basic methods of humanistic, psychodynamic, and cognitive behavioral approaches as they relate to the helping process. A main focus of this course is the acquisition of basic helping skills. Students will also become familiar with counseling outcome research and will increase their level of counselor self-awareness.

Prerequisites: CPCE 5520.

CPCE 5531 Counseling Practicum I Credits: 3
Closely supervised therapeutic counseling with individuals; translation of theory into practice; clinical and professional techniques and issues.

Prerequisites: CPCE 5533.

CPCE 5532 Counseling Practicum II Credits: 3
Supervised therapeutic counseling with individuals and consultation in professional settings.

Prerequisites: CPCE 5531.

CPCE 5533 Couples And Family Therapy Practicum Credits: 3-6
Supervised application of theories and methods of family therapy with individuals, couples and families.

Prerequisites: CPCE 5532 and CPCE 5542.

Co-requisites: CPCE 5541.

CPCE 5534 Practicum For The Assessment Of Children And Adolescents Credits: 3
The practicum for the assessment of children and adolescents covers the facilitation of psychological evaluations for this population and includes maintaining a caseload of assessment evaluations to complete through the CCS Assessment Center. Specialized assessment evaluations and conceptualization issues are covered in the second half of the course, with evaluations for ADHD and other learning disorders emphasized. Special topics will be discussed at the end of the course.

Prerequisites: CPCE 5515.

CPCE 5539 Continuing Counseling Practicum Credits: 1-6
Supervised therapeutic counseling with individuals.

Prerequisites: CPCE 5532.

CPCE 5540 Theories And Methods In Group Counseling Credits: 3
Theories and research in group counseling, including knowledge and skills in establishing and maintaining a counseling group; effective group leadership; therapeutic factors in groups; strategies for group development; and ethical and multicultural considerations in group work. Requires participation in a professional growth group.

Prerequisites: CPCE 5530.

CPCE 5541 Couples And Family Therapy Credits: 3
Introduction to family relationships and the application of life cycle stages to working with couples and families. Focus also includes the study of a range of family configurations and issues with attention to diversity.

CPCE 5542 Theories and Techniques of Family Systems Therapy Credits: 3
A study of major family systems theories and their applied practices in family therapy. Students will develop skills in family assessment techniques and family therapy processes.

Prerequisites: CPCE 5530.
CPCE 5547 Psychology of Stress and Trauma Credits: 3
This course is designed to introduce students to the psychology of stress and trauma. Students will learn about the effects of stress and trauma, as well as counseling interventions that address the effects of stress and trauma. Specifically, students will learn about vicarious trauma, the psychophysiology of stress and trauma, diagnostic and assessment-related issues with stress and trauma, therapeutic approaches to working with trauma survivors, multicultural and social justice considerations, and trauma therapy as applied to specific populations.

Prerequisites: Admission to a degree program in the Counseling and Educational Psychology (CEP) division at UMKC, or if from a program outside of CEP, approval from the course instructor.

CPCE 5550 Organization And Administration Of Counseling Programs Credits: 3
Organization, administration, and planning of counseling programs with emphasis on their practical aspect; counseling practice in schools and agencies; intraprofessional relationships; legal and ethical considerations. Course to be taken near completion of the master's program.

CPCE 5551 Counseling in a Pluralistic Society Credits: 3
Addresses the needs of diverse populations served by counselors and addresses developing intervention methods of working with these populations. Focuses on advocacy and change agent roles of counselors.

Prerequisites: CPCE 5520.

CPCE 5553 Ethics And Professional Issues In Counseling Credits: 3
This course is designed to examine the major ethical and professional issues within the counseling profession. More specific, ethical dilemmas and professional issues relevant to the practice of mental health, marriage and family, school and substance abuse counseling are the major foci of this course. In addition, instruction is designed to enhance student understanding of the ethical standards such that students can effectively apply the critical thinking necessary to practice ethical behavior with clients, professional colleagues, consultees, and the communities in which they work.

CPCE 5575A Internship In Counseling I Credits: 3-16
First semester of a sequence of applied experiences in a planned, supervised program. Seminar accompanies internship experiences. The following areas of specialization are available: a) Marriage and Family, b) Mental Health, c) School, and d) Substance Abuse.

Prerequisites: CPCE 5532.

CPCE 5575B Internship In Counseling II Credits: 3-16
Second semester of a sequence of applied experiences in a planned, supervised program. Seminar accompanies internship experiences. The following areas of specialization are available: a) Marriage and Family, b) Mental Health, c) School, and d) Substance Abuse.

Prerequisites: Admission to Educational Specialist program in counseling, CPCE 5575A.

CPCE 5575C Internship In Counseling III Credits: 3-16
Third semester of a sequence of applied experiences in a planned, supervised program. Seminar accompanies internship experiences. The following areas of specialization are available: a) Marriage and Family, b) Mental Health, c) School, and d) Substance Abuse.

Prerequisites: Admission to Educational Specialist program in counseling.

CPCE 5589 Special Topics Credits: 1-6
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed in the semester bulletin.

CPCE 5589CA Special Topics Credits: 1-6
CPCE 5589GC Special Topics Credits: 3
CPCE 5589NP Special Topics Credits: 1-6
CPCE 5589PL Special Topics Credits: 1-6
CPCE 5589SE Special Topics Credits: 1-6
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed in the semester schedule.

CPCE 5590 Prevention, Consultation, and Program Evaluation in Community Settings Credits: 3
Course provides an overview of mental health consultation and collaboration in community settings. Models and theories of consultation and considerations for ethical practice in diverse settings are reviewed. The course also introduces prevention and program development and evaluation as roles for professional counselors. The course will briefly review the history of prevention, and allow students to develop a prevention program for a population of interest.

Prerequisites: CPCE 5532 or CPCE 5533.

CPCE 5598 Individual Studies Credits: 1-6
Review of the research and trends relative to selected problems.

CPCE 5599 Research And Thesis Credits: 1-9
Research and Thesis
CPCE 5600 Introduction To Counseling Psychology Credit: 1
This course is intended to assist new doctoral students in their orientation to UMKC and to the profession of Counseling Psychology. The course also introduces students to the ethical principles and code of conduct for psychologists.

CPCE 5605 Career Development II Credits: 3
Major theories and research in vocational psychology and career development and implications for the work of the counseling psychologist and counselor.
Prerequisites: CPCE 5505.

CPCE 5609 Assessment II: Intellectual And Cognitive Assessment Credits: 3
This course is designed to provide students with a foundation in the use of intellectual and cognitive assessment instruments in clinical evaluation. The course covers theoretical issues pertinent to intellectual and cognitive assessment as well as basic assessment skills including administration, scoring, interpretation, and communication of results for commonly used measures.
Prerequisites: Admission to the Ph.D Program in Counseling Psychology.

Cross Listings: PSYCH 5509.

CPCE 5610 Theoretical And Professional Issues In Counseling Psychology Credits: 3
This course is designed to introduce first year doctoral students to the fundamental concepts and methods of psychology conceived as the application of scientific and ethical reasoning to human problems. It will provide an in-depth examination of the American Psychological Association code of ethics and its application to the conduct of psychologists. Critical and analytical thinking will be emphasized in all aspects of the course. The course will cover broad models of clinical and counseling psychology and their historical and scientific foundations, issues in diagnosis, cross-cultural applications and professional problems in light of ethical principles, professional standards, scientific data multi-cultural contexts.

CPCE 5611 Objective Personality Assessment Credits: 3
This course is designed to help students develop knowledge and skills related to the selection, administration, and interpretation of some representative objective personality assessment instruments used in counseling/clinical settings. Students will also learn to integrate data obtained from an assessment battery to write comprehensive psychological reports.

CPCE 5615 Survey Of Research In Counseling Psychology Credits: 3
Survey of significant research in counseling psychology. Critical evaluation of research procedures, instrumentation, and clinical application of results.
Prerequisites: EDUC-R&P 5605 and EDUC-R&P 5608.

CPCE 5620 Advanced Theories And Methods Of Counseling Credits: 3
Personality and learning theories and their implications for professional practice in counseling psychology. Emphasis on critical evaluation of assumptions, methods, comprehensiveness and usefulness of the theories, with reference to related research.
Prerequisites: CPCE 5532.

CPCE 5631 Advanced Counseling Practicum Credits: 3
Advanced supervised therapeutic counseling with individuals and supervised consultation in clinical settings.
Prerequisites: CPCE 5532.

CPCE 5632 Practicum In Group Counseling Credits: 3
Leading groups under supervision. Focus on problems and experiences of counselors and counseling psychologists when leading groups.
Prerequisites: M.A. in Counseling, CPCE 5540.

CPCE 5633 Advanced Couples & Family Practicum Credits: 3
Advanced supervised application of theories and methods of family therapy with individuals, couples and families.
Prerequisites: CPCE 5542.

CPCE 5634 Assessment Practicum Credits: 3
The practicum for assessment of children, adolescents, and adults covers the administration of psychological evaluations and includes maintaining a caseload of assessment evaluations. Specialized assessment evaluations and conceptualization issues as well as special topics are covered, with evaluations for ADHD and learning disorders emphasized.
Prerequisites: CPCE 5611, 5609, 5531, 5532.

CPCE 5639 Continuing Advanced Counseling Practicum Credits: 1-6
Supervised therapeutic counseling with individuals, beyond the advanced level.
Prerequisites: CPCE 5631.

CPCE 5640 Theories And Methods Of Counseling Supervision Credits: 2
This course offers an overview of counseling supervision theories and models, and contemporary research. It also addresses supervision process and tasks, diversity in supervision, and supervisor’s ethical and legal responsibilities.
Prerequisites: CPCE 5631.
CPCE 5641 Supervision Practicum Credit: 1
This course is designed to provide students with an opportunity to practice supervision. Students will be assigned 2 to 3 counselors-in-training from a CPCE 5531 and CPCE 5532 practicum class to supervise over the course of a semester. The practicum instructor will provide weekly supervision.
Prerequisites: CPCE 5640.

CPCE 5645 Projective Testing Credits: 3
Course focuses on the diagnostic use of projective assessment techniques, with a special focus on the Rorschach Inkblot Test.
Prerequisites: CPCE 5515, Enrolled in Doctoral Psych. Program, and Measurement of Intelligence or Cognitive Assessment course.

CPCE 5650 Prevention and Consultation in Counseling Psychology Credits: 3
An overview of the psychologist’s role in consultation, program development and evaluation in the context of prevention. Students will also apply their knowledge and develop skills in prevention and consultation by developing a prevention program for a real-life setting.

CPCE 5675 Internship In Counseling Psychology Credits: 1-16
Applied experiences in a professional setting under supervision of licensed psychologists.

CPCE 5690 Special Problems Credits: 1-6
Individual studies; thesis exploration; special reading.

CPCE 5699 Research And Dissertation Credits: 1-16
Research and Dissertation.

Education Reading Courses
EDRD 439 Language & Literacy across the Disciplines Credits: 3
Principles and application of disciplinary literacy in the middle and secondary classroom. Class will be primarily composed of discussion and lecture. As a part of the course, teacher candidates will inquire into and analyze disciplinary practices in 5-12 schools.
Prerequisites: Admission to teacher education program.

EDRD 5439 Language and Literacy Across the Disciplines Credits: 3
Principles and application of disciplinary literacy in the middle and secondary classroom. Class will be primarily composed of discussion and lecture. As a part of the course, teacher candidates will inquire into and analyze disciplinary practices in 5-12 schools.
Prerequisites: Admission to the school of education.

EDRD 5501 Teaching Of Reading Credits: 3
This graduate language and literacy course explores foundational theories and research that have influenced literacy instruction and assessment in the United States. In particular, this course examines critical sociocultural theories and high leverage literacy practices for diverse learners. Prerequisites: TCH-ED 415 (or equivalent); No pre-requisites for students at the MA or EdSpec level.

EDRD 5502 Early Literacy and Language Development Credits: 3
This graduate language and literacy course emphasizes learning theories related to language acquisition, continuums of emergent literacy development, and corresponding teaching methods for literacy instruction and assessment of diverse learners. This course also prepares teachers and reading professionals to implement continuous professional learning related to language acquisition and emergent literacy with other teaching professionals.

EDRD 5510 Adolescent Practicum in Literacy Assessment and Intervention Credits: 3
This course ensures learners understand the purposes, strengths, and limitations of different literacy assessments in order to assess adolescent students’ proficiencies. The course will focus on identifying cognitive, motivational, and sociocultural factors that contribute to literacy success for the adolescent student in order to design and teach literacy intervention lessons with a struggling adolescent reader. As part of the practicum experience, learners are trained on communicating assessment results and implications to a variety of audiences.

EDRD 5511 Advanced Literacy Assessment and Evaluation Credits: 3
This graduate language literacy course engages teachers and literacy specialists in building foundational knowledge, analyzing, and administering intelligence and achievement tests focusing on a range of skills and abilities. The course foregrounds research-based, developmentally-appropriate theoretical frameworks and measures of cognitive functioning and academic achievement, as well as formative and summative literacy assessment practices through a variety of advanced level methods.
Prerequisites: EDRD 5501.

EDRD 5515 Seminar In Reading Credits: 3
In this seminar, candidates will be introduced to the discourse of literacy research, understand commonly used practitioner research designs, become critical consumers of literacy research, and expand their knowledge of the extant body of literature on literacy and literacy for diverse learners.
Prerequisites: EDRD 5510.
EDRD 5520 Elementary Practicum in Literacy Assessment and Intervention Credits: 3
This culminating elementary practicum is designed for graduate students in Language Literacy. This course prepares teachers to demonstrate proficiency in meeting the literacy needs of struggling readers and diverse learners in an elementary school setting and engaging in peer coaching and active self-peer analysis in order to improve their own instructional practices. Note: As this is the culminating course in the degree program, students are encouraged to implement learning concepts, practices, and assessments from previous coursework as appropriate during this practicum course.
Prerequisites: EDRD 5502, EDRD 5510.

EDRD 5530 Reading Instruction for K-12 English Language Learners Credits: 3
This course investigates ways to differentiate reading instruction to meet needs of English Language Learners with different levels of language proficiency and at different developmental and academic levels. The course focuses on research findings related to literacy development of diverse learners and ways to strengthen diverse classroom communities. This is an elective course in Language Literacy and does not have prerequisites.

EDRD 5540 African American English in Society and Schools Credits: 3
This course deals with the distinctive varieties of English used by and among African Americans, particularly in big-city settings, and their parallels elsewhere in Africa and the New World, especially in the Caribbean. The subject is approached from four perspectives that will be covered in the course: (1) Present-Day Features of African American Vernacular English (AAVE), its phonology, syntax, lexicon; (2) History and origins of AAVE; (3) Speech Events and Expressive Language Use (SEELU) Structure and function of such expressive African American Speech Events; (4) Educational Issues connected with the use of AAVE.
Prerequisites: Open to graduate students enrolled in Language and Literacy Program. Open to graduate students enrolled in other programs or undergraduate students with permission of professor.

EDRD 5541 Teaching Reading Improvement: Secondary, College, and Adult Levels Credits: 3
Classroom and laboratory techniques for upper level reading instruction; including study skills; reading speed and flexibility, and vocabulary improvement.

EDRD 5601 Organizing And Guiding The Reading Program Credits: 3
This course examines, analyzes, and develops effective K-12 schoolwide literacy programs that include intervention support systems for responding to the needs of all students in diverse contexts. In addition, the course will focus on program goals, the roles and responsibilities of personnel, materials, fostering collaborative leadership, and creating a school culture that focuses on literacy.
Prerequisites: EDRD 5510.

EDRD 5650 Dyslexia and Related Learning Differences Credits: 3
This advanced level graduate language and literacy course analyzes theories of atypical literacy development, with a specific focus on identification and awareness of the ways that language processing affects speech, reading and spelling. Students will explore the coexistence of dyslexia with related learning differences and will plan instructional interventions for students with literacy special needs.
Prerequisites: EDRD 5510.

Education Courses
EDUC 149 Economics In The K-8 Classroom Credits: 3
This course is designed to help students develop an understanding of economic concepts and principles and to raise their level of comfort for infusing these concepts throughout the K-8 curriculum. Special attention will be given to both national and state economic standards.

EDUC 160 Career And Life Planning Credits: 2
Skill development in career planning through processes of self-assessment and self-development and analyzing the structure of the world of work and occupational information, values, clarification and decision making, vocational exploration and preparation for employment.

EDUC 180 Introduction To Education Credits: 2
The course will present an overview of education today for those who have a general interest in education or are considering becoming educators. The curriculum provides students with an introduction to current issues in education while incorporating skills needed for academic success. Students will also have the opportunity to gain experience in a K-12 classroom setting (2 credit hours).

EDUC 189 Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

EDUC 189CD Special Topics Credits: 1-6

EDUC 189CM Special Topics Credits: 1-6

EDUC 289 Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

EDUC 289FD Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.
EDUC 289FE Special Topics Credits: 1-6
EDUC 289FL Special Topics Credits: 1-6
EDUC 289IA Special Topics Credits: 1-6
EDUC 289IU Special Topics Credits: 1-6
EDUC 289KT Special Topics Credits: 1-6
EDUC 289MA Special Topics Credits: 1-6
EDUC 289MM Special Topics Credits: 1-6
EDUC 289MT Special Topics Credits: 1-6
EDUC 289PS Special Topics Credits: 1-6
EDUC 289SE Special Topics Credits: 1-6
EDUC 289TE Special Topics Credits: 1-6
EDUC 289UE Special Topics Credits: 1-6
EDUC 289US Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

EDUC 389 Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings.

EDUC 389CA Special Topics Credits: 1-6
EDUC 389CI Special Topics Credits: 1-6
EDUC 389ES Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

EDUC 389FD Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

EDUC 389FE Special Topics Credits: 1-6
EDUC 389FL Special Topics Credits: 1-6
EDUC 389IA Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

EDUC 389IU Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

EDUC 389LL Special Topics Credits: 1-6
EDUC 389LM Special Topics Credits: 1-6
EDUC 389LT Special Topics Credits: 1-6
EDUC 389ME Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

EDUC 389MM Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

EDUC 389TI Special Topics Credits: 1-6
EDUC 389UE Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>EDUC 389US</td>
<td>Special Topics</td>
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<td>EDUC 402R</td>
<td>Algebraic Thinking for Teachers</td>
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<td>EDUC 414</td>
<td>English Language Study in Elementary and Secondary Schools</td>
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<td>EDUC 428</td>
<td>Cultural Diversity and American Education</td>
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<td>EDUC 434</td>
<td>Classroom Diagnosis and Correction of Reading Problems</td>
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<td>EDUC 440</td>
<td>Literature for Adolescents</td>
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<td>EDUC 489</td>
<td>Special Topics</td>
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**EDUC 389US** Special Topics Credits: 1-6

EDUC 402R Algebraic Thinking for Teachers Credits: 3

Designed for middle and secondary school mathematics teacher candidates to [re]evaluate conceptions of learning and teaching algebraic concepts across elementary, middle, and high school levels. Course topics include mathematical habits of mind, defining algebra, building number sense to develop algebraic thinking, generalizing functional relationships, and representing mathematical ideas.

EDUC 414 English Language Study in Elementary and Secondary Schools Credits: 3

Designed as a review of traditional as well as descriptive and historical approaches to grammar, usage and syntax - focusing upon teaching strategies for elementary, junior high, middle school, and senior high English/language arts classrooms.

EDUC 428 Cultural Diversity and American Education Credits: 3

An examination of educational needs and strategies in a culturally diverse society based on a study of several major ethnic and nationality groups in America from historical, anthropological and sociological perspectives. This course may be team-taught.

EDUC 434 Classroom Diagnosis and Correction of Reading Problems Credits: 3

Procedures for the diagnosis and correction of reading problems which are appropriate for classroom teachers.

**Prerequisites:** TCH-ED 415.

EDUC 440 Literature for Adolescents Credits: 3

Focus upon literature for adolescents and ethnic literature, specifically, and upon the special reading interests of the adolescent in relation to the methods and materials of reading in grades 7-12, generally. Attention to literature selection standards, censorship, individualized instruction, and reader response.

EDUC 489 Special Topics Credits: 1-6

A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in each semester's bulletin.

EDUC 489A Special Topics Credits: 1-6

EDUC 489AR Special Topics Credits: 1-6

EDUC 489BP Special Topics Credits: 1-6

EDUC 489CA Special Topics Credits: 1-6

EDUC 489CI Special Topics Credits: 1-6

EDUC 489LO Special Topics Credits: 1-6

EDUC 489LT Special Topics Credits: 1-6

EDUC 497 Individual Study Credits: 1-6

Guided study of a selected topic in education.

EDUC 5428 Cultural Diversity and American Education Credits: 3

An examination of educational needs and strategies in a culturally diverse society based on a study of several major ethnic and nationality groups in America from historical, anthropological and sociological perspectives. This course may be team-taught.

EDUC 5489CI Special Topics Credits: 1-6

Special Topics

EDUC 5489AR Special Topics Credits: 1-6

Special Topics

EDUC 5489CA Special Topics Credits: 1-3

Special Topics

EDUC 5489LI Special Topics Credits: 1-6

Special Topics

EDUC 5489LM Special Topics Credits: 1-6

Special Topics

EDUC 5489LT Special Topics Credits: 1-6

Special Topics

EDUC 5489MS Special Topics Credits: 1-6

Special Topics
EDUC 5552 Advanced Diagnostic And Treatment Procedures In Reading Credits: 3
Significant aspects of reading disability; diagnostic testing; case report writing; interpretation of test data; implications of test data for recommendations.
Prerequisites: EDRD 5510.

Co-requisites: EDRD 5520.

EDUC 5589AA Special Topics in Education Credits: 1-6
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed on the semester bulletin.
EDUC 5589AQ Special Topics In Education Credits: 1-6
EDUC 5589B Special Topics In Education Credits: 1-6
EDUC 5589EP Special Topics In Education Credits: 1-6
Special Topics In Education
EDUC 5589ES Special Topics in Education Credits: 1-6
EDUC 5589IT Special Topics in Education Credits: 1-6
EDUC 5589LR Special Topics in Education Credits: 1-6
EDUC 5589MS Special Topics in Education Credits: 1-6
EDUC 5589MT Special Topics in Education Credits: 1-6
EDUC 5589Q Special Topics In Education Credits: 1-6
EDUC 5589R Special Topics in Education Credits: 1-6
EDUC 5589RD Special Topics in Education Credits: 1-6
EDUC 5589RH Special Topics In Education Credits: 1-6
EDUC 5589TL Special Topics in Education Credits: 1-6
EDUC 5589WP Special Topics in Education Credits: 1-6
EDUC 5598 Individual Studies Credits: 1-6
Review of the research trends relative to selected problems in education. By prior arrangement with instructor.
EDUC 5598A Individual Studies In Administration Credits: 1-6
EDUC 5598B Individual Studies In Mathematics Credits: 1-6
EDUC 5598C Individual Studies Curriculum Credits: 1-6
EDUC 5598H Individual Studies Higher Education Credits: 1-6
EDUC 5598J Individual Studies Philosophy Of Education Credits: 1-6
EDUC 5598P Individual Studies Educational Psychology Credits: 1-6
EDUC 5598Q Individual Studies Early Childhood Education Credits: 1-6
EDUC 5598R Individual Studies Education Reading Credits: 1-6
EDUC 5598S Individual Studies Research Credits: 1-6
EDUC 5598SA Individual Studies Research Credits: 1-6
EDUC 5598U Individual Studies History Of Education Credits: 1-6
EDUC 5598X Individual Studies Sociological Foundations Credits: 1-6
EDUC 5599 Research And Thesis Credits: 1-9
Research and Thesis.
EDUC 5621 Practicum In Curriculum And Instruction Credits: 3-6
A field experience which provides an opportunity for the application of current research in the area of curriculum and instruction to an educational setting.
EDUC 5640 Apprenticeship And Conference In College Training Credits: 2-5
Apprenticeship experience in preparing, conducting, and evaluating college teaching under the direction of and in conference with supervising professors. Some attention to student personnel and administration in higher education.
EDUC 5690 Special Problems Credits: 1-6
Individual studies; thesis exploration, special reading.
EDUC 5695 Doctoral Dissertation: Reading Education Credits: 1-16
Doctoral Dissertation: Reading Education

EDUC 5696 Dissertation Administration And Community Leadership Credits: 1-16
Dissertation Administration And Community Leadership

EDUC 5697 Dissertation Curriculum And Instruction Credits: 1-16
Dissertation Curriculum And Instruction

EDUC 5698 Dissertation General Education Credits: 1-16
Dissertation General Education

EDUC 5899 Required Graduate Enrollment Credit: 1

**Educ-Curriculum Instruction Courses**

EDUC-C&I 497 Individual Study Credits: 1-6
Guided study of a selected topic in curriculum and instruction.

EDUC-C&I 5504 Social Studies In the Schools Credits: 3
Trends and curricular developments in social studies. Focus on the development of social studies concepts, the development of critical thinking skills, and analysis of values.

EDUC-C&I 5505 Introduction To Curriculum Theory Credits: 3
An introduction to curriculum theory with the recognition that knowledge, power, ideology and schooling are connected to patterns of complexity and contradictions. Emphasis will be placed on curricula that cultivate theoretical discourses about the quality and purpose of schooling and human life.

EDUC-C&I 5506 Curriculum Design Credits: 3
This course is designed to enhance educators’ skills in the areas of curriculum design and interpretation. Students will apply and adapt strategies for curriculum development as well as for interpreting and adapting existing curricula.

EDUC-C&I 5508 Curriculum And Methods For Teaching The Non-Motivated Learner Credits: 3
Analysis of materials relevant to reluctant learners; student-teacher prepared consumable materials; current research; methods for presenting material.

EDUC-C&I 5509 Reducing Risk Factors For Students In Educational & Community Stn Credits: 3
The course offers an overview of current research and of special programs that deal with students who are likely to fail at school or in life. The roles of the larger society in helping create such problems will be considered. There will be an emphasis on early identification of such students and a consideration and evaluation of a number of programs designed to help them. The course will also present descriptions of the roles that educators can implement in programs designed for prevention and intervention.

EDUC-C&I 5510 Differentiating Instruction Through Teaching/Learning Styles Credits: 3
Teaching practices based upon teaching/learning styles are explored and modeled. Through differentiated instruction students learn to use style preferences to meet the needs of learners in a typical classroom including the culturally diverse, at-risk, the remedial, the learning disabled, the gifted, and the special needs students. Differentiation emphasizes learning centers, self-selection, self-pacing, subgrouping, contracting and peer tutoring. (K-12).

EDUC-C&I 5511 Developing Multidisciplinary Problem Solving Skills Credits: 3
Development of heuristic strategies in problem analysis, information processing, modeling and logical thinking. Study of methods and materials for teaching problem solving strategies, with applications from several school curriculum areas and instructional settings. Use of microcomputers to develop skills.

EDUC-C&I 5512 Strategies For Effective Classroom Management Credits: 3
The course presents several current approaches to classroom management and how they might be applied to the classroom. The approaches are evaluated in terms of psychological theory and research. Direct experiences with discipline problems are offered through simulation and role-playing.

EDUC-C&I 5513 Effective Communication In The Classroom Credits: 3
This course will emphasize the relationship between communication and classroom climate, and the influence of communication on motivation and student behavior. Communication with large groups, small groups, and individuals is studied and practiced.

EDUC-C&I 5514 Overview of Culturally Responsive Pedagogy Credits: 3
An introduction to ways of thinking about the relationship among teaching, learning, learner characteristics and experiences, and learning outcomes for traditionally underserved students. Particular attention will be given to a framework for understanding the meaning of culture in framing the curriculum and engaging students in meaningful learning experiences and tasks. A practice-based approach to improving learning for traditionally underserved students will be employed. Each participant will be required to participate in and facilitate discussion, develop a personal inventory, and conduct a historical analysis of her/his school and its relation to the community.

EDUC-C&I 5515 Integrated Arts As A Model For Classroom Instruction Credits: 3
This course provides background on theory, research and practice in arts education. Students will learn to integrate the arts across the curriculum and explore the value of the arts as conveyors of information, powerful tools of communication and bridges to the broader culture. This course will also give the students the opportunity to create, study and experience the arts as a model for classroom instruction.
EDUC-C&I 5516 Understanding the Crisis in Urban Schools Credits: 3
The participants in this course will develop deep knowledge of practices related to long-term and persistent challenges in urban schools. Participants will examine well-documented accounts of conditions and situations within and outside that influence the culture and learning outcomes in high performing and low performing urban schools. These accounts will represent multiple perspectives including those of teachers, administrators, students, parents, and other stakeholders. The insights gained from the documented accounts examined in this course will be used to conceptualize new context-specific approaches and frameworks for improving practices, policies, and learning outcomes in urban schools.

EDUC-C&I 5517 Teaching Methods And Practices Credits: 3
This course is designed to present and evaluate basic instructional methods and techniques and to determine the ways in which instruction is affected by the social and cultural context of the school.

EDUC-C&I 5518 Assessment of Diverse Learners, Engagement and Motivation Credits: 3
A framework for assessing diverse learners and implementing culturally responsive pedagogy, leading to increased learner engagement and motivation. An overview of the purposes of assessments, how assessment measures are aligned to the principles of culturally responsive pedagogy, and implications for overall learner academic, personal and social growth. Finally, specific strategies for building engagement and motivation, particularly for learners living in poverty and those from ethnically diverse backgrounds are provided.

EDUC-C&I 5519 Discipline Specific Pedagogy for Diverse Learners Credits: 3
An introduction to the use of research-based, discipline specific pedagogy for traditionally under served students in core subject areas of reading, mathematics, science and social studies. Additionally, participants examine the philosophy and theoretical perspectives that support different pedagogical approaches and the social context for learning in classrooms with diverse students.

EDUC-C&I 5520 English Curriculum In The Middle And High School Credits: 3
Advanced study of contemporary programs and procedures in specialized sectors of the secondary school curriculum. Examination of program objectives, teaching methods, and instructional materials in English.

**Prerequisites:** valid regular teaching certificate, undergraduate special methods or equivalent, teaching experience.

EDUC-C&I 5522 Language Arts Curriculum In The Elementary And Middle School Credits: 3
Consideration of language concepts as they relate to the teaching of the Language Arts in Grades K through 8. Significant research and its application to current trends in teaching the language arts will be explored.

**Prerequisites:** an undergraduate course in Language Arts or reading.

EDUC-C&I 5523 Advanced Literature For Children Credits: 3
This course emphasizes the critical analysis and selection of a variety of genres of multicultural children’s print, digital, and online literature in order to create “windows and mirrors” (Bishop, 1990) through literature for diverse educational settings. It will emphasize using literature with culturally and linguistically diverse groups of students, explicitly modeling literacy skills and teaching literacy strategies, and exploring prevalent myths and stereotypes in society that are often reflected in children’s and young adult literature.

EDUC-C&I 5524 Advanced Methods of Teaching English Language Arts for Grades 5-9 Credits: 3
Students will study research-based, developmentally appropriate pedagogies for teaching English Language Arts in grades 5-9. Course will foreground processes of analytic inquiry and cycles of planning, enacting, interpreting and translating learning experiences to meet the needs of all students. Topics will include methods of teaching reading, literature, writing, language study, speaking/listening, research skills, as well as technology integration.

EDUC-C&I 5525 The Craft of Writing Credits: 3
Students will learn inquiry-based pedagogies for teaching writing in grades 5-9. The course will address the role of the ELA teacher as lead writer in the classroom, and students will develop their own writing process and practice across a range of genres. Students will learn how to create a classroom community of writers through a variety of evidence-based frameworks and practical strategies for effective writing instruction. Topics will address processes of conferencing for instruction, feedback and evaluation supported by current research. Students also will learn effective methods for embedding meaningful stylistic and mechanical instruction to support writer/writing development.

EDUC-C&I 5526 The Craft of Reading Credits: 3
Students will examine inquiry-based pedagogies for teaching reading in grades 5-9. The course will address the role of the ELA teacher as lead reader in the classroom, and students will examine their own reading process and strategies through a variety of interpretive and analytic approaches supported by current research, including reader response and close reading. Topics will address evidence-based frameworks for effective reading instruction, comprehension strategies of diverse readers, and methods of reading assessment, data analysis and reflective practice.

EDUC-C&I 5528 Teaching Nonfiction Texts for Grades 5-9 Credits: 3
Students will gain an understanding of pedagogies for teaching both the craft and criticism of nonfiction texts. Emphasis will be placed upon integration of nonfiction via thematic pairing with existing texts. Topics will include analysis and application of text structures, text features, rhetorical strategies and literary devices, as well as deconstruction and interrogation of state and national standards relating to the teaching of nonfiction texts.

EDUC-C&I 5531 Mathematics Learning Difficulties: Identification and Intervention Credits: 3
Designed for inservice and preservice teachers to explore the interrelation of mathematics concepts and instructional strategies to enhance the mathematical learning of students who underachieve in mathematics and/or struggle with mathematics.

**Prerequisites:** Any mathematics teaching methods course.
EDUC-C&I 5536 Specialized Secondary School Curriculum Mathematics Credits: 3
Advanced study of contemporary programs and procedures in specialized sectors of the secondary school curriculum. Examinations of program objectives, teaching methods and instructional materials in Mathematics.
**Prerequisites:** valid regular teaching certificate, undergraduate Special Methods or equivalent, teaching experience.

EDUC-C&I 5539 Mathematics Curriculum Development Credits: 3
Application of principles of curriculum development to the mathematics content and instructions. Development of a rationale for objectives and content selection and for evaluation. Study and evaluation of current programs, trends and experiments.

EDUC-C&I 5540 Evaluation Of Computer Software Credits: 3
The goals of the course are to provide students with a systematic evaluation process which analyzes the hardware resources and application needs of various user groups. This course provides the student with both an academic understanding of evaluation and requirement analysis for educational user groups. The course includes a practicum activity for application projects.

EDUC-C&I 5541 Teaching Mathematics With Computer Credits: 3
The use of a variety of technologies and the appropriate software in teaching secondary mathematics will be investigated and the resulting impact on curriculum will be covered.
**Prerequisites:** Mathematics teaching certificate or the equivalent of an undergraduate degree in mathematics.

EDUC-C&I 5542 Methods of Teaching English as a Second Language Credits: 3
This course covers the historical and current approaches, methods, and techniques of teaching English to speakers of other languages, from grammar translation to audiolingual and communicative approaches. Additionally, successful classroom practices that address the needs of culturally and linguistically diverse students will be presented.

EDUC-C&I 5543 English Grammar for ESOL Teachers Credits: 3
This course is about teaching English grammar and methods of teaching grammar for graduates, prospective and current teachers of English to speakers of other languages. It includes analysis of the major grammatical structures of American English, discussion of the role of teaching grammar, effective classroom methods and techniques for the English as a second/foreign language classroom.

EDUC-C&I 5544 Theory and Research in Second Language Teaching and Learning Credits: 3
This course covers both second language learning theories and second language research and design. It will also contain a survey of both qualitative and quantitative research literature.

EDUC-C&I 5545 Linguistics for ESOL Teachers Credits: 3
This course is an introduction to linguistic theories focusing on topics that are particularly relevant to ESOL teachers in culturally and linguistically diverse settings. It also covers applying these theories to practice in ESOL classrooms. The contents include basic practical knowledge in phonetics, phonology, morphology, syntax, pragmatics and semantics.

EDUC-C&I 5546 Intercultural communication Credits: 3
This course serves as an introduction to the background of English language learners (ELL) from many countries of the world. It also serves to facilitate ESOL students’ success in ELL and mainstream classrooms. The course will introduce culture in general at first and then focus on how to better understand the ELL students’ cultures. Class participants will learn to develop lessons that enhance intercultural communication and understanding among all students.

EDUC-C&I 5547 Second Language Acquisition Credits: 3
The course focuses on the foundations of second language learning and teaching. Major theoretical approaches to second language acquisition and second language learning will be discussed. The course is also one of the requirements for an endorsement to teach in English as a second language classroom.

EDUC-C&I 5548 English As A Second Language In Content Areas Credits: 3
Theoretical perspectives of teaching, learning and researching literacy development. The focus of this course will be on content based English as a second language instruction. The course is one of the requirements for an endorsement to teach in an English as a second language classroom.

EDUC-C&I 5549 Practicum In English As A Second Language Credits: 3
A four-week practicum for teachers and researchers in the field of second language learning and teaching. Students will have the opportunity to develop their own teaching plan of action according to the curriculum guidelines of the program in which they participate. Students will develop a portfolio and reflection piece about their own learning in the practicum.

EDUC-C&I 5551 Science Curriculum In The Middle And High School Credits: 3
Advanced study of contemporary programs and procedures in specialized sectors of the secondary school curriculum. Examination of program objectives, teaching methods and instructional materials in Natural Sciences.
**Prerequisites:** valid regular teaching certificate, undergraduate special methods or equivalent, teaching experience.

EDUC-C&I 5553 Curriculum And Instruction In Science Credits: 3
Advanced study of contemporary programs and practices in science education at all instructional levels. Examination of program objectives and teaching methods and development of instructional materials for classroom use.
**Prerequisites:** A science teaching methods course and teaching experience.
EDUC-C&I 5554 Assessment In Science Education Credits: 3
Advanced study of science education assessment with option for elementary or secondary emphasis.

EDUC-C&I 5560 Teaching And Learning In The Urban Classroom Credits: 3
Emphasis will be placed on examining cultural beliefs, assumptions, values and their influence on the processes of teaching, perception of the urban learner, understanding the characteristics of the urban learner, and transforming pedagogical practices.

Prerequisites: EDUC-UL 5525 MA Multic Ed Students Only with 15 Prog Credit hours

EDUC-C&I 5561 Teaching Diverse Populations In Today's Classrooms Credits: 3
This course focuses on culturally responsive pedagogies for meeting the academic needs and learning styles of culturally diverse students. Emphasis will be placed on critical investigation of the role of socio-cultural dynamics on learning and teaching, and design of curriculum, materials, and pedagogical and disciplinary practices that affirm student's culture. The ultimate goal of the course is to examine ways in which a culture-based curricular perspective provides powerful scaffolding for enabling and empowering educational experiences for diverse students.

Prerequisites: EDUC-UL 5525, EDUC-UL 5526, EDUC-UL 5527, or EDUC-UL 5528.

EDUC-C&I 5562 Teaching For Equity And Social Justice Credits: 3
This course examines a systems approach to the design, development, assessment, and implementation of school practices that support equity and social justice for all students. It investigates issues of educational inequities and educational empowerment. Practitioners will develop the knowledge, skills and dispositions needed for empowering self and students. Emphasis will be placed on social action learning, empowerment and agency.

Prerequisites: EDUC-UL 5525, EDUC-UL 5526, or EDUC-UL 5528 and EDUC-C&I 5560 or EDUC-C&I 5561 or EDUC-C&I 5562.

EDUC-C&I 5563 Multicultural Perspectives In Education Credits: 3
This course provides an opportunity for students to engage in a critical and in-depth study of multicultural education. Students will examine current theoretical, conceptual, ideological, and political positions that help frame the multicultural education debate. The ultimate goal of the course is to help students develop critical and multiple perspectives about education in a democratic society with the aim of transforming curricular and pedagogical practice.

Prerequisites: EDUC-UL 5525, EDUC-UL 5526, EDUC-UL 5527 or EDUC-UL 5528 and EDUC-C&I 5560 or EDUC-C&I 5561 or EDUC-C&I 5562.

EDUC-C&I 5565 Social Studies Curriculum Elementary Education Credits: 3
Trends and new curricular developments in elementary school social studies. Focus on integration of social science concepts, the development of critical thinking skills, and analysis of values.

EDUC-C&I 5566 Social Studies Curriculum In The Middle And High School Credits: 3
Advanced study of contemporary programs and procedures in specialized sectors of the secondary school curriculum. Examinations of program objectives, teaching methods, and instructional materials in Social Studies.

Prerequisites: valid regular teaching certificate, undergraduate special methods or equivalent, teaching experience.

EDUC-C&I 5567 Curriculum And Instruction In Technology Credits: 3
Study of contemporary programs and practices of technology usage in education at all instructional levels. Examination and application of technologically enhanced teaching methods, assessment, and curriculum development for classroom use.

EDUC-C&I 5571 Cognition & Technology Credits: 3
The purpose of this course is to respond to current research in the field of cognition and educational technology and design an evaluative research response to a local technology program. The educators will define the concepts concerning implementation of new technologies into learning environments and the mediational effects on the types and quality of learning that result from that process.

EDUC-C&I 5572 Assessing The Role Of Technology In Education Credits: 3
The purpose of the course is to develop an understanding of changing role of technology in education by reviewing current and historical articles on the topic. This includes a historical analysis of trends and expectations within educational settings and outside educational settings and defining the educator's understandings of the role of technology in educational settings, past, present and future.

EDUC-C&I 5573 Development Learning Tech Progs:Traditional & Non-Trad Settings Credits: 3
The purpose of this course is to develop understandings of currently implemented educational technologies including both software and hardware configurations. The educators will review current use of a variety of current technologies integrated into traditional settings and non-traditional settings and evaluate their effectiveness in developing standards-based learning outcomes and constructivist-based learning outcomes.

EDUC-C&I 5575 Internship - Early Childhood Credits: 3-16
Applied experiences in a planned, supervised curriculum program. Seminar accompanies internship experiences.

EDUC-C&I 5576 Administration Of Early Childhood Programs Credits: 3
This course is designed to examine the administrative functions and decisions involved in effectively directing an Early Childhood Program. Students may plan their own Early Childhood Program incorporating philosophical values and beliefs.

EDUC-C&I 5577 Early Childhood Special Education Methods Credits: 3
EDUC-C&I 5577 provides an overview of the field of early childhood special education, with an emphasis on inclusive education for young children ages birth-third grade. This emphasis includes methods and practices for providing services for young children with special needs and their families and the adaptation of developmentally appropriate curriculum and the classroom environment. Historical, political, and theoretical contexts are provided as framework for the course.
EDUC-C&I 5578 Play In Early Childhood Education Credits: 3
The purpose of this course is to study the various play theories and developmental levels of play. Students plan play activities and participate in Early Childhood programs.

EDUC-C&I 5579 History, Theories, And Issues In Early Childhood Education Credits: 3
This course is designed to explore the historical and theoretical principles in early childhood education. Current issues in the field will be examined and discussed.

EDUC-C&I 5580 Curriculum In Early Childhood Education Credits: 3
The content of this course will include an exploration of appropriate curriculum and instruction of early childhood classrooms. Students will recognize, understand and analyze the differences and similarities between early childhood curriculum and instruction methods and elementary education instruction.

EDUC-C&I 5581 Infant-Toddler Programs: Research Theory And Practice Credits: 3
This course is designed to investigate the research relevant to infant and toddler programs, learn about the appropriate curriculum and teaching methods, and visit infant and toddler programs.

EDUC-C&I 5582 Program Models In Early Childhood Education Credits: 3
This course is designed to explore and analyze program models in early childhood education in terms of their theoretical and/or philosophical bases and their transformation into practice. During this process, students are encouraged to evaluate their own personal views and values concerning teaching/learning issues in early childhood education.

EDUC-C&I 5583 Supervision In Early Childhood Education Credits: 3
The purpose of this course is to study the process of effective supervision of staff in the diverse contexts of early childhood education. This course is designed to prepare students to supervise teachers, staff, paraeducators, or volunteers in early childhood education programs. Students will explore theories of adult development, the supervision process, professional development, and the evaluation process.

EDUC-C&I 5584 Early Childhood Culminating Project Credits: 1-6
This seminar is designed for graduate students to explore current issues and topics pertaining to the field of early childhood education. An in-depth investigation of ways to work with community agencies will be included.

EDUC-C&I 5585 Teaching and Learning with Technology Credits: 3
This is an introductory course that covers the fundamental of standard educational computer applications in addition to providing the basic concepts regarding classroom hardware and software integration. This course familiarizes students with the National Educational Technology Standards For Teachers and Students. Because of the computer's increasing importance in all phases of education, hands-on experiences are required throughout the course.

EDUC-C&I 5586 Multimedia in Education Credits: 3
This course will introduce students to a variety of methods for creating instructional multimedia materials for K-16 classroom use, with a particular emphasis on free and web-based digital editing and conversion programs. **Prerequisites:** EDUC-C&I 5585 (or TCH-ED 385).

EDUC-C&I 5587 Facilitating Technology Implementation Credits: 3
This course will prepare students to facilitate the integration of educational technology in PK-12 settings. Skills taught will include planning and implementing educational technology professional development to classroom teachers and integration strategies that increase the potential for meaningful learning. **Prerequisites:** EDUC-C&I 5585 (or TCH-ED 385).

EDUC-C&I 5589 Special Topics In Education Credits: 1-6
A course designed to deal with a curriculum topic which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed on the semester bulletin.

EDUC-C&I 5589AD Special Topics in Education Credits: 1-6
A course designed to deal with a curriculum topic which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed on the semester bulletin.
EDUC-C&I 5589AM Special Topics In Education Credits: 1-6
EDUC-C&I 5589CD Special Topics In Education Credits: 1-6
EDUC-C&I 5589EG Special Topics In Education Credits: 1-6
EDUC-C&I 5589ES Special Topics Credits: 3
EDUC-C&I 5589GR Special Topics In Education Credits: 1-6
EDUC-C&I 5589HR Special Topics In Education Credits: 1-6
EDUC-C&I 5589IC Special Topics In Education Credits: 1-6
EDUC-C&I 5589ME Special Topics In Education Credits: 1-6
EDUC-C&I 5589SC Special Methods Science Credits: 5
EDUC-C&I 5589SE Special Methods English Credits: 5
EDUC-C&I 5589SM Special Methods Math Credits: 5
EDUC-C&I 5589SS Special Methods Social Studies Credits: 5
EDUC-C&I 5589TL Special Topics In Education Credits: 1-6
EDUC-C&I 5589UC Special Topics in Education Credits: 1-6
EDUC-C&I 5590 Seminar Credits: 3
Discussion and evaluation of literature in curriculum.
Prerequisites: EDUC-C&I 5505.

EDUC-C&I 5591 Curriculum & Instruction For The 21St Century Credits: 3
A seminar including critical examination of current issues affecting schools such as education for democracy and global interdependence in a diversified society, curriculum and instruction in a technological, post-industrial society, the changing demographics of the U.S. and the implications for curriculum and instruction; and the roles of teachers and administrators in the school of the future. Students will be actively involved in "research-in-action" study of both theory and practice.

EDUC-C&I 5595 Action Research For Practitioners Credits: 3
This course comprises a guided graduate research paper experience. Course participants will work together to plan individual action research studies related to diverse, urban schooling. This course is designed to enable practitioners to engage in systematic inquiry on some aspect of their practice in order to find out more about that practice and eventually improve it. Participants in the course are expected to put their assumptions, ideas and practices to the test by gathering, analyzing and drawing conclusions from evidence. This course is to be taken during the last year of degree study. Course enrollment requires faculty advisor approval and a minimum 3.0 GPA. Participation in this course entails a field placement for research purposes. If a placement in a school is required, students will need to complete a TB test and submit fingerprints for the standard Background Check process by the start of the semester. Any costs associated with these tests are the responsibility of the student. All course participants are further required to obtain a LiveText subscription.

EDUC-C&I 5596 Classroom Assessment Credits: 3
This course is designed to help practitioners develop an understanding of the various roles of classroom assessment, strengthen their own assessment strategies be able to better use data in the development of curriculum that is appropriate for all learners. Students will develop a more clear understanding of the relationship of curriculum, instruction assessment ways in which good assessments can help diverse learners.

EDUC-C&I 5598 Individual Studies Credits: 1-6
Review of the research and trends relative to curriculum in education.

EDUC-C&I 5618 Survey Of Research In Curriculum Credits: 3
Review and analysis of research in curriculum theory and methods.

EDUC-C&I 5619 Systemic Curriculum Evaluation and Review Credits: 3
This course focuses on current practices in systemic curriculum review at the grade, school, district or state level in order to better serve the needs of diverse learners. Emphasis will be placed on the processes of curriculum review, curriculum change, implementation, evaluation of changes, and ongoing long-range curriculum planning and review.

EDUC-C&I 5620 Seminars In Theories Related To Curriculum Credits: 3
Study of major historical developments in curriculum and their influence on contemporary models and practices.
Prerequisites: EDUC-C&I 5504 or EDUC-C&I 5505.
EDUC-C&I 5626 Seminar in Multicultural Perspectives In Education Credits: 3
This seminar provides an opportunity for student engagement in critical and in-depth study of multicultural perspectives in education. Students will examine current demographic and achievement realities and the theoretical, conceptual, ideological, and political positions that frame multicultural education. The ultimate goal is to help students develop multicultural competence, critical and multiple perspectives about education for a democratic society, and comprehensive knowledge base, skills, and dispositions for transformative intellectualism and change agency.

**Prerequisites:** Interdisciplinary Ph.D. Student Status and EDRP 5608.

EDUC-C&I 5640 Curriculum and Teaching for the College Classroom Credits: 3
This course provides a foundation for preparing for and engaging in instruction at the college level. The emphasis is on curriculum planning, assessment, feedback, classroom interactions, and student motivation across a wide variety of discipline areas. This course may also be counted toward course credit allocation for the Preparing Future Faculty online graduate certificate program.

EDUC-C&I 5641 Apprenticeship and Conference in College Training Credits: 2-6
This course provides a foundation for preparing for and engaging in instruction at the college level. The emphasis is on apprenticeship experience in preparing, conducting, and evaluating college teaching under direction of and in conference with supervising professors.

EDUC-C&I 5690 Special Problems Credits: 1-6
Individual studies: thesis exploration, special reading.

EDUC-C&I 5697 Dissertation Curriculum And Instruction Credits: 1-16
Dissertation Curriculum And Instruction

**Educ-Research Psychology Courses**

EDUC-R&P 255 Understanding Data Through Sports: Sabermetrics Credits: 3
Non-theoretical approach to data analysis using applications and examples from the world of sports.

EDUC-R&P 5502 Advanced Educational Psychology Credits: 3
Critical examination of the contributions of psychological principles and findings to the field of education.

EDUC-R&P 5505 Statistical Methods I Credits: 3
Non-theoretical approach to statistical procedure, including introduction to simple analysis of variance.

EDUC-R&P 5508 Principles And Methods Of Research Credits: 3
Introduction to the analysis of research literature including types of research, methodology, design and data analysis.

EDUC-R&P 5510 Child Behavior And Development Credits: 3
Growth, maturation, and learning processes in children.

EDUC-R&P 5512 Adolescent Development and the School Credits: 3
An overview of development from preadolescence to adulthood, focusing on major theories and aspects of development, contemporary critical issues of the transitions from childhood to adolescence and into adulthood, and the role of professional educators in facilitating positive development.

EDUC-R&P 5513 Life Span Human Development Credits: 3
This course introduces students to the theories and research of biological, cognitive, social and personality development across the lifespan, within the layers of context of people's lives. Special attention is given to the role in development of social class, gender, ethnicity and culture.

EDUC-R&P 5522 Principles Of Testing Credits: 3
Measurement theory, uses and limitation of assessment procedure.

EDUC-R&P 5555 Statistical Methods II Credits: 3
Non-theoretical approach to statistical procedure, including introduction to factorial ANOVA and multiple regression.

**Prerequisites:** EDUC-R&P 5505 or an equivalent introductory statistics course.

EDUC-R&P 5564 Instructional Design Credits: 3
Overview of learning theories and pedagogical models as related to the principles and methods of instructional design. Emphasis on the planning, design, implementation and evaluation of instructional systems including focus on technology integration.

EDUC-R&P 5575 Internship Credits: 3-16
Applied experiences in a planned, supervised program in research or educational psychology.

EDUC-R&P 5589 Special Topics In Education Credits: 1-6
A course designed to deal with a topic in educational research or educational psychology which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed on the semester bulletin.

EDUC-R&P 5589AD Special Topics in Education Credits: 1-6
EDUC-R&P 5589AT Special Topics in Education Credits: 1-6
EDUC-R&P 5589CH Special Topics in Education Credits: 1-6
Special Topics in Education
EDUC-R&P 5589CP Special Topics In Education Credits: 1-6
EDUC-R&P 5589DB Special Topics In Education Credits: 1-6
A course designed to deal with a topic in educational research or educational psychology which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed on the semester bulletin.

EDUC-R&P 5589HL Special Topics in Education Credits: 1-6
EDUC-R&P 5589IS Special Topics in Education Credits: 1-6
EDUC-R&P 5589LP Special Topics in Education Credits: 1-6
EDUC-R&P 5589PE Special Topics In Education Credits: 1-6
EDUC-R&P 5589PR Special Topics In Education Credits: 1-6
EDUC-R&P 5589SC Special Topics in Education Credits: 1-6
EDUC-R&P 5589SE Special Topics In Education Credits: 1-6
EDUC-R&P 5590 Individual Studies Credits: 1-6
Review of the research and trends relative to selected problems in educational research or psychology.

EDUC-R&P 5505 Quantitative Analysis I: Regression And Analysis Of Variance Credits: 3
This graduate level statistics course for students in education and the behavioral sciences provides a strong conceptual understanding of two major statistical procedures within the context of the general linear model: Multiple regression and numerous analysis of variance (ANOVA) models. Students will learn to select appropriate statistical software, and report the results of their analyses in the format of the American Psychological Association.
Prerequisites: EDUC-R&P 5505 and EDUC-R&P 5508 (or PSYCH 302WI).

Cross Listings: PSYCH 5516.

EDUC-R&P 5606 Quantitative Analysis II : Multivariate Data Analysis Credits: 3
This graduate level statistics course for students in the behavioral sciences and education provides a strong conceptual understanding of advanced topics in regression (interaction effects, logistic regression, path analysis) and various multivariate techniques (MANOVA, canonical correlation, factor analysis). Students will complete a series of data based projects that allow them to demonstrate their skills in analysis, reporting, and interpretation of findings.
Prerequisites: EDUC-R&P 5605 (or PSYCH 5516) and EDUC-R&P 5508 (or PSYCH 302WI).

Cross Listings: PSYCH 5517.

EDUC-R&P 5608 Introduction To Graduate Research Credits: 3
This course provides an introduction to qualitative and quantitative research methods. It is designed for students beginning their study in a doctoral program.
Prerequisites: EDUC-R&P 5508 or its equivalent and doctoral student status.

EDUC-R&P 5609 Development and Evaluation of Assessment Tools Credits: 3
This survey course examines test theories, construction, and measurement theories. Within the context of a variety of conceptual frameworks and examples, students become knowledgeable about the various purposes, approaches, and computer software tools for measurement.
Prerequisites: EDUC-R&P 5606 or PSYCH 5517.

Cross Listings: PSYCH 5538.

EDUC-R&P 5611 Structural Equation Modeling Credits: 3
Students will learn core techniques in structural equation modeling, including: path analysis, confirmatory factor analysis, structural regression models; and be introduced to advanced topics such as multi-group SEM and latent growth models. There will be multiple lab sessions using appropriate computer applications.
Prerequisites: EDUC-R&P 5606 (or PSYCH 5517) and EDUC-R&P 5609 (or PSYCH 5538).

EDUC-R&P 5612 Applied Quantitative Research in Education Credits: 3
This class provides an in-depth examination of experimental and non-experimental quantitative research techniques, with a focus on their application in educational research. Students develop a proposal for a quantitative research study, including review of literature, development of research questions and hypotheses; and selection of appropriate research design, data collection techniques, and statistical analyses.
Prerequisites: One semester of statistics at the doctoral level.
EDUC-R&P 5613 Hierarchical Linear Models Credits: 3
Students will be introduced to hierarchical linear modeling techniques. Foundational topics include the rationale for using hierarchical linear models, issues related to assumptions and data screening, and a dissection of the components of a two-level organizational effects hierarchical linear model. Special topics to be discussed include growth modeling, three-level models, dyadic models, and models with categorical outcome variables (i.e., hierarchical generalized linear models). Multiple class sessions will be devoted toward use of software to build and analyze these models. 
Prerequisites: EDUC-R&P 5606 and EDUC-R&P 5609.

EDUC-R&P 5615 Qualitative Research Theory & Design Educational Setting. Part 1 Credits: 3
Students will be introduced to qualitative research theory and design. 
Prerequisites: EDUC-R&P 5505 and EDUC-R&P 5508.

EDUC-R&P 5616 Qual Data Collection And Analysis In Educational Settings. Part 2 Credits: 3
Students will gain experience in qualitative data collection and analysis. 
Prerequisites: EDUC-R&P 5615.

EDUC-R&P 5625 Program Evaluation For Education & Social Credits: 3
Program evaluation is an applied research area that focuses on providing summative and formative data about the progress of an organization or program. This doctoral seminar will focus on learning to identify the goals, objectives and assumptions inherent in a program, and on designing a methodology to assess progress towards the goals. All students will develop a comprehensive evaluation plan for a program of their choice. 
Prerequisites: EDUC-R&P 5505, EDUC-R&P 5522, and EDUC-R&P 5508 or EDUC-R&P 5608.

EDUC-R&P 5639 Educational Psychology: Focus on Teaching in Higher Education Credits: 2-3
An introduction to theories and principles from educational psychology as they relate to learning, motivation, assessment, and instruction. 
Prerequisites: Doctoral Student Status.

EDUC-R&P 5640 Apprenticeship And Conference In College Training Credits: 1-3
Apprenticeship experience in preparing, conducting, and evaluating college teaching under the direction of and in conference with supervising professors. 
Prerequisites: EDUC-R&P 5639.

EDUC-R&P 5690 Special Problems Credits: 1-6
Individual studies; thesis exploration, special reading.

EDUC-R&P 5698 Dissertation In Educational Research & Psychology Credits: 1-16
Dissertation In Educational Research Psychology

Educ-Urban Leadership Courses
EDUC-UL 5501 Foundations Of School Leadership & Organization Credits: 3
Participants will study as cohort team members actively engaged in clinical/practical endeavors in schools, concepts and theories focused: 1) to understand and apply modern leadership and organization development theory in relation to school organizational cultures; 2) to understand both the development of productive school relationships and the theoretical concepts of the legal responsibilities of schools in the society; 3) to develop a plan for principal certification based upon participant needs and experiences; and 4) to build school cultures that are collaborative, participative, reflective, and self renewing.

EDUC-UL 5502 Building Administration And Management Credits: 3
Participants will study and apply theories and concepts as members of a Cohort Team doing clinical work in schools designed to study, learn, and practice the management and administrative responsibilities of building level leaders including principal roles, personnel issues, school business management, community relations, supervision of staff, and to know the legal responsibilities relating to teachers, student and public rights. 
Prerequisites: EDUC-UL 5501.

EDUC-UL 5503 Student, Staff And Organization Development Credits: 3
Participants will study as a member of a cohort team doing clinical work in school and developing the ability: 1) to gain knowledge of, and practice in developing “learning organizations”; 2) to assist teachers and other staff members of a school in structuring classrooms around the learning and development of all students; 3) to lead and develop urban schools that are culturally diverse where learner outcomes and performance are not related to race, class, or gender; and 4) to provide leadership related to developing school structures that are outcome oriented. 
Prerequisites: EDUC-UL 5501 and EDUC-UL 5502.

EDUC-UL 5504 Elementary School Administration Credits: 3
Contemporary knowledge, understanding, and competencies for elementary administration. Focus on leadership, communication, group processes, organization, fiscal, and political areas. In addition, basic roles and responsibilities of the school principalship are addressed.

EDUC-UL 5505 Middle School Administration Credits: 3
Middle school goals, effective middle school leadership, change models for staff development, relevant curricula, auxiliary and support systems.
EDUC-UL 5506 Secondary School Administration Credits: 3
Organization and objectives of secondary education; curriculum trends; role analysis; principal-staff relations.
Prerequisites: EDUC-UL 5501.

EDUC-UL 5507 Instructional Supervision Credits: 3
Principles of supervision, factors influencing effectiveness of instruction, including the evaluation of teachers.

EDUC-UL 5508 Special Education Administration Credits: 3
Provides special educators, special education and regular education administrators with knowledge and experience in the areas of special education process, policy development, data collection and funding, legal issues and program organization. Special emphasis is given to dealing with common problems which arise in public school special education programs.

EDUC-UL 5510 Planning Educational Facilities Credits: 3
Analysis of educational specifications; cooperative planning processes; analysis of trends in school facilities; financial considerations and construction research. Visitation of selected facilities included.

EDUC-UL 5511 Public School Business Administration Credits: 3
The business related aspects of administering a school district including budgeting and accounting, purchasing, transportation, insurance, and facilities management.

EDUC-UL 5512 School Finance Credits: 3
Sources of revenue for public education; distribution of monies for education; budget construction; accounting procedures; and theories for financing education.

EDUC-UL 5513 School Personnel Administration Credits: 3
Study of processes, policies and theory concerned with the personnel function in educational administration. Emphasizes the importance of human resources in developing effective educational systems.

EDUC-UL 5514 Public Relations In Education Credits: 3
Analysis of various public views on education; mass communications and social change; public relations programs.

EDUC-UL 5515 Governmental And Legal Aspects Of Education Credits: 3
Current and recent legislation affecting education; court cases related to education; emerging patterns of modern jurisprudence; administrators' responsibilities regarding legal decisions.

EDUC-UL 5516 Governmental And Legal Aspects Of Special Education Credits: 3
An examination of current and recent legislation affecting special education; emerging patterns of modern jurisprudence; and special education teacher and administrator legal responsibilities.

EDUC-UL 5518 Leadership for School Improvement Credits: 3
The content of this course has a focus on identifying and using data to make school improvement decisions. Students will be engaged in readings, activities, and reflections that discuss the importance of using data for decision-making at the building and district levels of school leadership.
Prerequisites: Admission into the Educational Administration Program.

EDUC-UL 5520 Data Driven Leadership for Reculturing Schools Credits: 3
The challenges facing urban education are complex and may be understood from a myriad of perspectives including historical and socio-cultural underpinnings, economic and political contexts, and pedagogical/achievement orientations. This course will bring together some of these arguments as they relate to what school leaders can do to promote a community of adult leaders who use data to make decisions for the success of all children. Such a challenge includes working as educational leaders to reculture schools to increase opportunities for all students to learn. For some schools this task involves closing the persistent achievement gap that may exist among groups of students which requires disaggregating data by race, ethnicity, socioeconomic status, gender, and special educational needs.

EDUC-UL 5522 School Organizational Culture As The Context Of Change Credits: 3
This course is designed to enable students to understand that schools as organizations develop cultures and that this culture establishes relationships and conditions in schools for students, teachers, and administrators. Students will develop an understanding of the culture of a school and its influence on efforts to achieve substantive change or reform.

EDUC-UL 5523 Administrative Roles For Instructional Leadership Credits: 3
This course meets a requirement for administrator certification in Missouri and Kansas in the area of school improvement and leadership. The course focuses upon leadership roles necessary for creating a supportive climate for change and for implementing improved instructional programs.

EDUC-UL 5524 Philosophical Inquiry And Education Credits: 3
An examination of issues, problems and controversies discussed in educational and related literature, utilizing criteria and techniques of logical and philosophical analysis. The focus is on the development of critical thinking abilities as applied to theories, positions and arguments in educational and related contexts.

EDUC-UL 5525 Cultural Foundations Of Education Credits: 3
Examines education and schooling as cultural phenomena. This course focuses on an analysis of education and schooling as both cultural transmission and cultural change and the practical implications. Also included is a philosophical/theoretical examination of varying relationships between dominant and minority cultures.
EDUC-UL 5526 Philosophical Foundations Of Education Credits: 3
Introduction to the study of philosophical problems implicit in educational issues. Focuses on the application of a number of philosophical concepts and skills to a variety of controversies, policies, and theories in education.

EDUC-UL 5527 Historical Foundations Of Education Credits: 3
Study of the development of educational policy, practice, and theory in relation to changes in social institutions and thought. Focuses on the analysis of contemporary educational problems in the light of historical perspectives.

EDUC-UL 5528 Sociological Foundations Of Education Credits: 3
An analysis of issues involving the role of schools in society, the relationship between education and other social institutions, and contemporary social developments which have major implications.

EDUC-UL 5531 Educational Leadership and Human Resources Credits: 3
This course has been designed to develop students' proficiencies in school human resource management and its importance to positive outcomes for student learning. The course focuses on human resource components that are essential to effective schools.
Prerequisites: Admission into the Educational Administration EdD Program.

EDUC-UL 5532 Educational Leadership and Organizational Behavior Credits: 3
This course has been designed to develop the students' proficiencies in school organization and management to provide positive outcomes for student learning. The course focuses upon organizational behavior and development and its components that are essential to effective school.
Prerequisites: Admission into the Educational Administration EdD Program.

EDUC-UL 5534 English Language Learner Program Administration Credits: 3
Provides educators, administrators, and district officials with knowledge, skills, and dispositions necessary to supervise/manage programs and teachers in elementary, middle, or secondary schools that serve students with limited English proficiency. Participants will study and apply theories and practices related to language acquisition cultural pluralism, multicultural education, family and community engagement, acculturation, assessment, and legal rights and responsibilities relating to English language learners and the school.
Prerequisites: Bachelor's degree.

EDUC-UL 5535 Current Topics in Urban School Leadership Credits: 3
Current Topics in Urban School Leadership

EDUC-UL 5550 Organization And Administration Of Higher Education Credits: 3
Organizational patterns; administrative roles and procedures; establishment of policies, institutional development; and public and private financing of higher education.

EDUC-UL 5551 Student Affairs Administration In Higher Education Credits: 3
Study of the objectives, organizational structure, and current issues of student affairs administration as they relate to the academic program, the campus environment, and the needs of students; analysis of the functions of different services.

EDUC-UL 5553 Supervision and Management of People Credits: 3
The purpose of this course is to provide a broad overview of staffing practices in the field of higher education, especially student affairs. The course will assist students to be better professionals, to learn the literature as it relates to supervision, and to begin basic skill development. Other course content includes issues surrounding staff selection, staff orientation. The course is open to any graduate student.

EDUC-UL 5556 The College Student Credits: 3
An examination of today's college students. Review and study of demographics, relationships of students and colleges, nature of student communities, new student populations and the impact of college on students and their educational development.

EDUC-UL 5557 Legal Aspects Of Higher Education Credits: 3
Study of legal issues within higher education. Focus is on state and federal law and regulations as they pertain to issues ranging from academic freedom to governance and administration. Focus on strategies for preventive law is a major component of the course.

EDUC-UL 5558 Advanced Student Development Theory Credits: 3
A focused and in-depth examination of developmental theories related to the college student. This course builds on information presented in EDUC-UL 5556.
Prerequisites: EDUC-UL 5556.

EDUC-UL 5559 Current Issues In Community Colleges Credits: 3
A course responsive to the contemporary issues in community college administration, addressing interesting and important topics that fall outside the scope of other courses in the higher education curriculum. Students will have an overview of the role of community colleges within the larger organization of colleges and universities in the U.S. higher education system.
Prerequisites: Graduate student status.

EDUC-UL 5560 Leadership In Higher Education Credits: 3
Focus on leadership, connections among different approaches to leadership, different forms of power, and different leadership behaviors. A series of opportunities to think systematically about leadership and to increase a student's personal leadership capacities in higher education will be provided.
EDUC-UL 5562 Gender & Leadership In Educ: Implications For Prof. Effectiveness Credits: 3
This course is for women and men who want to understand better the unique challenges and opportunities facing leaders in today's educational organizations. Exploration of connections between gender and leadership is the focus of study. Students will probe linkages between gender and leadership for their own leadership and for organizational policy and practice.

EDUC-UL 5564 History Of Higher Education Credits: 3
Study of the evolution of the constituencies within different types of American higher education institutions. The development of professional, practical, and graduate education will be examined as will 20th century alternatives to the liberal arts colleges and research university models.

EDUC-UL 5566 Racial And Ethnic Diversity, And Cultural Understanding Credits: 3
An exploration of the ideological and historical construction of education for social equality, and subsequent issues of race, ethnicity, and class that influence colleges and universities in the U.S. today.

EDUC-UL 5567 Higher Education Capstone Credits: 3
This course will provide a culminating experience for students in the Higher Education Masters program. All aspects of higher education administration will be examined and synthesized to enhance student ability to understand and operate in a complex setting.

EDUC-UL 5570 Administrative Practicum Higher Education Credits: 3-6
Assigned administrative responsibilities under supervision of practicing higher educational administrator, seminar and written project accompany field experiences.

EDUC-UL 5571 Internship In Higher Education Credits: 3-16
Applied experiences in a planned, supervised program. Seminar accompanies internship experiences.

EDUC-UL 5572 Higher Education Administration: The Profession Credits: 3
A course to introduce the prospective or new student affairs professional to all facets of higher educational administration. The course provides a balance of presentations by student affairs professionals, participation and observation in a variety of higher education offices and individual research projects. It is anticipated that students will visit several institutions of higher education and will participate in a service-learning project.

EDUC-UL 5574 Administrative Practicum Credits: 1-6
Assigned administrative responsibilities under supervision of practicing educational administrators seminar and written project accompany field experiences.

EDUC-UL 5575 Internship In Administration Credits: 1-16
Applied experiences in a planned, supervised educational administration program. Seminar accompanies internship experiences.

EDUC-UL 5589 Special Topics In Educational Leadership Credits: 1-6
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed on the semester bulletin.

EDUC-UL 5589AD Special Topics In Educational Leadership Credits: 1-6
EDUC-UL 5589BE Special Topics in Educational Leadership Credits: 1-6
Special Topics in Educational Leadership
EDUC-UL 5589CP Special Topics In Educational Leadership Credits: 1-6
EDUC-UL 5589EA Special Topics In Educational Leadership Credits: 1-6
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed on the semester bulletin.

EDUC-UL 5589ED Special Topics In Educational Leadership Credits: 1-6
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed on the semester bulletin.

EDUC-UL 5589EL Special Topics In Educational Leadership Credits: 1-6
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed on the semester bulletin.

EDUC-UL 5589ET Special Topics In Educational Leadership Credits: 1-6
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed on the semester bulletin.

EDUC-UL 5589HR Special Topics In Educational Leadership Credits: 1-6
EDUC-UL 5589LR Special Topics In Educational Leadership Credits: 1-6
EDUC-UL 5589OB Special Topics In Educational Leadership Credits: 1-6
EDUC-UL 5589SM Special Topics In Educational Leadership Credits: 1-6
EDUC-UL 5590 Seminar Credits: 3
Discussion and evaluation of literature in Education Administration.
EDUC-UL 5598 Individual Studies Credits: 1-6
Review of the research and trends relative to selected problems in education.

EDUC-UL 5601 Research In Education Administration: Qualitative Theory & Design Credits: 3
First of two courses in advanced qualitative research in higher education and educational administration. Focus is on the theory and design of qualitative work. Students will become familiar with the various ontological, epistemological, and methodological assumptions that guide research in the social sciences and be able to make informed choices about inquiry techniques for dissertation and future research.

EDUC-UL 5602 Seminar In The History Of American Urban Education Credits: 3
A study of the historical development of American urban educational institutions and ideas and of how that development is embedded within the broader context of social, political, and economic change in the United States.

EDUC-UL 5603 Research In Education Administration: Qualitative Data & Analysis Credits: 3
Second of two courses in advanced qualitative research in higher education and educational administration. Focus is on data collection and analysis in qualitative work. Students will become familiar with various data gathering techniques and devices for interpreting qualitative data and drawing meaningful conclusions. This information will guide students in dissertation and future research.

Prerequisites: EDUC-UL 5601.

EDUC-UL 5604 Introduction to Doctoral Study Credits: 3
This course is designed as an introductory course in the doctoral sequence for the EdD in Educational Administration with an emphasis in Higher Education. The course is designed to introduce students to the tasks and processes involved in the completion of the doctoral requirements. It is required for all entering doctoral students.

Prerequisites: Admission to the doctoral program.

EDUC-UL 5616 Analysis Of Educational Theory Formation Credits: 3
Study and application of criteria for evaluating the adequacy of educational theories and evaluating the relevance to theories of research studies.

EDUC-UL 5626 Theory In Educational Administration Credits: 3
Leadership theories and research; bureaucracy and organizational processes; new directions in organizational analysis; sociological and psychological concepts in school administration.

Prerequisites: EDUC-UL 5501 (or equivalent).

EDUC-UL 5627 Advanced Educational Supervision Credits: 3
Principles and concepts of educational supervision and implementation.

Prerequisites: EDUC-UL 5507 (or equivalent).

EDUC-UL 5628 The Superintendency Credits: 3
Analysis and overview of the nature, functions and activities of the public school superintendency including: historical and philosophical foundations; board-staff and other governing body relationships and functions; professional staff relations and management; public relations and communication; inter-governmental relations and responsibilities, and the functions of planning, direction and supervision of the instructional enterprise.

EDUC-UL 5634 Faculty & Curricular Issues Higher Education Credits: 3
This course will explore different facets of college and university curricula. This course will include varying ways curriculum has been structured and the debates that have surrounded the structure and content. Faculty issues will be explored via the curriculum and will include a focus on workload policies and practices.

Prerequisites: Admission to the doctoral program.

EDUC-UL 5635 Topics In Higher Education Credits: 3
Organization of higher education, public and private financing; accreditation; academic freedom; policy development; community relations; curricular patterns, selected current issues.

Prerequisites: EDUC-UL 5550 (or equivalent).

EDUC-UL 5636 Policy Issues in Higher Education Credits: 3
This course is intended for those whose roles as educational leaders requires them to participate in the analysis and development of policies associated with educational programs and practice. Students will be able to understand the characteristics of a well developed policy agenda, obstacles to policy implementation, and interpretations related to policy implementation. Concurrently, institutional, political, economic, social, and moral consequences of various policies will be explored.

Prerequisites: Admission to the doctoral program.

EDUC-UL 5637 Community College Credits: 3
Investigation of the purposes, programs, and the problems in the American community college movement; analysis of the structure, governance, and financial support of community colleges.

Prerequisites: Doctoral status.

EDUC-UL 5640 Apprenticeship And Conference In College Training Credits: 2-5
Apprenticeship experience in preparing, conducting, and evaluating college teaching under the direction of and in conference with supervising professors. Some attention to student personnel and administration in higher education.
EDUC-UL 5652 Financial Aspects Of Higher Education Credits: 3
This course is designed for graduate students with a basic understanding of the area of Higher Education Administration. The course examines basic concepts and principles of finance in higher education in the United States. Students are expected to: Develop an understanding of 1) the issues and fiscal problems of higher education, 2) the roles and responsibilities of financial officers in higher education, and 3) possible future trends in the financing of higher education.
Prerequisites: Doctoral status.

EDUC-UL 5655 Studies In Philosophy Of Education Credits: 3
Study of special topics in the philosophy of education.
Prerequisites: EDUC-UL 5523, EDUC-UL 5526.

EDUC-UL 5660 Effective Practices II Credits: 3
This course builds on the general understanding of leadership and professional practices developed in Leadership in Education Effective Practices I. The course addresses key leadership challenges and decision making in today's complex work world. The course uses reading on selected issues, case discussions, and role plays to move beyond theory and understanding to application and effectiveness.

EDUC-UL 5665 The Urban University Credits: 3
This course examines the development and unique aspects, characteristics and role of the urban university. In addition to an exploration of the historical relationship between urbanization in American society and university development and evolution, seminars will focus attention on undergraduate and graduate education, faculty development, community relations, and regional and economic development for urban institutions.
Prerequisites: Doctoral status.

EDUC-UL 5685 Problems And Issues In Education & Urban Leadership Credits: 3
This course serves as the capstone class for all doctoral students in education. The course requires analysis of successful dissertations in urban education and prepares students to write their own dissertation relative to urban study and education.

EDUC-UL 5690 Special Problems Credits: 1-6
Individual studies; thesis exploration, special reading.

EDUC-UL 5690A Special Problems Credits: 1-6
Individual studies; thesis exploration, special reading.

EDUC-UL 5696 Dissertation Administration And Community Leadership Credits: 1-16
Culminating written research project for doctoral students in Urban Leadership and Policy Studies.

Physical Education Courses

PHYS-ED 106 Badminton Credit: 1
This course teaches the basic rules, skill techniques, terminology and strategy for badminton.

PHYS-ED 125 Golf Credit: 1

PHYS-ED 145 Social Dance Credit: 1

PHYS-ED 149 Basketball And Team Handball Credit: 1
This course teaches the basic rules, skill techniques, terminology and strategy for basketball and team handball.

PHYS-ED 153 Volleyball Credit: 1

PHYS-ED 157 Weight Training Credit: 1
Prerequisites: PHYS-ED 157.

PHYS-ED 158 Advanced Weight Training Credit: 1
This course teaches free weight training exercises that are used within a well-balanced training program, and provides experience needed to design weight training programs.

PHYS-ED 159 Jogging Credit: 1

PHYS-ED 174 Cross Training Credit: 1
This course provides knowledge, skill and opportunity to improve primary sport/activity performance or overall fitness, through designing and participating in a variety of cross training physical activities.

PHYS-ED 175 Personal Fitness Credits: 2
This course is designed to expose students to facts about and experiences in dealing with motor, physical, physiological, psychological and nutritional aspects of the human being. Specific areas of study include hypokinetic disease, physical fitness, nutrition and wellness concepts.

PHYS-ED 175L Lifetime Fitness Lab Credit: 1
This course is designed to provide supervised activity experiences including self assessment and self directed physical exercise programs that are coordinated with the lecture portion of the course.
PHYS-ED 180 Beginning Swimming Credit: 1
This course is designed to equip each student with basic water safety skills and knowledge in order to make them reasonably safe while in, on or about the water.

PHYS-ED 181 Fitness Swimming Credit: 1
This course is designed to challenge and encourage each student to develop an individualized fitness program based on personal goals. Lap swimming as well as water exercise will be incorporated in the class.

PHYS-ED 189 Special Topics: Activity Credit: 1
A course designed to deal with a special activity class which is not available in the regular course offerings. Activity class, instructors and prerequisites to be listed in the semester bulletin.

PHYS-ED 189AG Special Topics Credit: 1

PHYS-ED 189AY Special Topics: Activity Credit: 1

PHYS-ED 189BE Special Topics: Activity Credit: 1

PHYS-ED 189KF Special Topics Credit: 1
A course designed to deal with a special activity class which is not available in the regular course offerings. Activity class, instructors and prerequisites to be listed in the semester bulletin.

PHYS-ED 189KT Special Topics: Activity Credit: 1

PHYS-ED 189RC Special Topics: Activity Credit: 1
A course designed to deal with a special activity class which is not available in the regular course offerings. Activity class, instructors and prerequisites to be listed in the semester bulletin.

PHYS-ED 189RT Special Topics: Activity Credit: 1

PHYS-ED 189SC Special Topics Credit: 1

PHYS-ED 189SS Special Topics: Activity Credit: 1

PHYS-ED 189WJ Special Topics: Activity Credit: 1

PHYS-ED 189WM Special Topics: Activity Credit: 1

PHYS-ED 189XX Special Topics: Activity Credit: 1

PHYS-ED 189XY Special Topics: Activity Credit: 1

PHYS-ED 189YO Special Topics: Activity Credit: 1

PHYS-ED 206 First Aid And Safety Credit: 1
Methods of administering first aid in case of accident or sudden illness; bandaging; resuscitation; and caring for wounds and injuries. Safety in schools will be stressed. (Elective).

PHYS-ED 207 Outdoor And Leisure Pursuits Credits: 2
Designed to acquaint students with opportunities for leisure and recreational activity in the outdoors. Emphasizes safety measures and planning skills as well as development of particular movement skills and knowledge about associated wildlife.

PHYS-ED 212 Self Defense Credit: 1
Study in the theory of self defense. Content focuses on: technique for eliminating dangers from daily living, methods for recognizing and avoiding dangers, and skills and strategies for employing physical defense when necessary.

PHYS-ED 300 Mechanical Analysis of Human Movement Credits: 3
Study of the kinesiologic and biomechanical aspects of human motion with focus on application to sport skill, dance and exercise situations.
Prerequisites: HLSC 120 and HLSC 160 or equivalent or concurrent enrollment.

PHYS-ED 300L Mechanical Analysis of Human Movement Lab Credit: 1
Lab activities that support the study of kinesiologic and biomechanical aspects of human motion with focus on application to sport skill, dance, and exercise situations.
Prerequisites: HLSC 120 and HLSC 160 or equivalent or concurrent enrollment.

Co-requisites: PHYS-ED 300.

PHYS-ED 312 Physical Education For Elementary Schools Credits: 2
Identifies physical education needs of elementary school child in relation to his/her total development with emphasis on methods and materials.

PHYS-ED 312L Laboratory Experiences in Physical Educ for the Elementary School Credit: 1
This course consists of laboratory teaching experiences, with skill theme combinations of games, gymnastics, dance fitness.
Co-requisites: PHYS-ED 312.
PHYS-ED 323 Nutrition for Fitness and Sport Credits: 3
This course examines the role nutrition, complemented by exercise, may play in the enhancement of fitness and sport performance. Considerable attention will be devoted to the use of nutritional ergogenic aids with reference to athletic performance.
**Prerequisites:** LS-PHYS 217, LS-ANATO 218, LS-ANATO 218L.

PHYS-ED 350 Physiology of Sport and Exercise Credits: 3
Study of the concepts and principles of exercise physiology with the intent of learning how to apply them to exercise, sport and movement experiences. Includes development of fitness testing skills, program planning and exercise.
**Prerequisites:** HLSC 120 and HLSC 160 or equivalent or concurrent enrollment.

PHYS-ED 350L Physiology of Sport and Exercise Lab Credit: 1
Using lab activities, the course uses the concepts and principles of exercise physiology and applies them to exercise, sport, and movement experiences. Includes the development of fitness testing skills, program planning and exercise.
**Prerequisites:** HLSC 120 and HLSC 160 or equivalent (or concurrent enrollment).

**Co-requisites:** PHYS-ED 350.

PHYS-ED 361WI Sociology of Sport and Exercise Credits: 3
The critical examination of the function of sport in the American culture, in an interdisciplinary fashion, with a focus on the contemporary scene. The work of the course will include readings on sociological issues of sport and exercise, the writing of mini-research papers, and a long paper with a presentation. Recommended preparation: Introduction course in sociology.

PHYS-ED 370 Psychology of Sport and Exercise Credits: 3
Exploration of psychological constructs related to the competitive sport process and to physical activity.

PHYS-ED 389 Special Topics In Health And Physical Education Credits: 1-3
This course is designed to offer a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

PHYS-ED 391 Fitness Assessment and Exercise Prescription Credits: 3
This course introduces students to health appraisal and fitness assessment of individuals. The course proceeds with prescribing exercise and conditioning programs, to enhance health and develop physical performance.
**Prerequisites:** PHYS-ED 350.

PHYS-ED 401 Teaching Healthy Behaviors in the Schools Credits: 3
Study of school health and physical activity programs with emphasis on methods and materials for health, safety, and classroom physical activity instruction in grades K-8.

PHYS-ED 401L Health Teaching In The Schools Lab Credit: 1
Students will attain beginning level competence in skills related to teaching health in schools, including planning, preparation and presentation skills. Computer skills will be used to search internet, e-mail, and develop a computer generated presentation.

PHYS-ED 499 Internship Credits: 3-6
Extensive experience in a practical situation under supervision of university faculty and on-site personnel. Breadth and intensity of involvement will depend on student ability. Available only to upper-division majors.

PHYS-ED 5530 Organization And Administration Of Athletics Credits: 3
Organization and management of a program of competitive athletics for schools and colleges.

PHYS-ED 5561 Social-Cultural Aspects of Sport and Physical Activity Credits: 3
The social significance of sport in modern societies. Research on the social structure, social relations and social problems of sport from several subcultural perspectives will be reviewed.

PHYS-ED 5570 Sport Psychology Credits: 3
Analysis of research and theory focused on the psychological aspects associated with participation in sport and physical activity.
**Prerequisites:** PHYS-ED 370.

**Educ-Teacher Education Courses**

TCH-ED 130 Number Systems and Related Topics Credits: 3
This course is designed for elementary preservice teachers to meet certification requirements for a course in number theory. The course provides a constructive development of the real number system, introduces concepts from elementary number theory and applies this knowledge of quantitative systems to solve various types of problems. Recommended preparation: High School Algebra and Geometry.

TCH-ED 140 Geometry for Elementary Teachers Credits: 3
This course is designed for elementary preservice teachers to meet certification requirements for a course in geometry. It provides a constructive development of axiomatic geometry and introduces concepts from transformation geometry. Elements of spatial sense and measurement are included and an emphasis is placed on applying this knowledge to solve various types of problems. Recommended preparation: High School Algebra and Geometry.
TCH-ED 150 Foundations of Urban Education Credits: 3
This course is designed to introduce students to the social and philosophical issues in urban education and will include an emphasis on culture, race, class, and ethnicity as they relate to schooling in urban America.

TCH-ED 151 Introduction to Urban Education Field Experience Credits: 2
Introduction to Urban Education Field Experience. The field experience is intended to give students an opportunity to see the application of learning theory in authentic classroom situations. Students are encouraged to become involved in the learning of the classroom and provide a helping hand to the teacher.

TCH-ED 152 Urban Education Seminar 1: Social Justice Credits: 2
Introductory seminar to the field of urban education. This seminar aligns with the other fall semester experiences and allows students an opportunity to dialogue about the possible application of their experience work as it applies to teaching in an urban school. Students will be introduced to current topics in education and society; identify, develop and enhance study strategies; observe, listen and think critically, sharpen writing skills; and work effectively in groups.

TCH-ED 153 Math Methods for Urban Education Teachers: Number Systems Credits: 2
Designed for elementary school teachers. A constructive development of the real number system beginning with the system of whole number, concepts for the elementary number theory; applications of quantitative systems to problems in discrete mathematics.

TCH-ED 154 Math Methods for Urban Education Teachers: Geometry Credits: 2
Designed for elementary school teachers. A constructive development of geometry and concepts from elementary teacher education; applications will be made to connect with elementary curriculum.

TCH-ED 155 Math Methods for Urban Education Teachers: Probability and Statistics Credits: 2
Designed for Elementary and Middle School Teachers. This course is designed to provide undergraduate students in elementary and middle school mathematics with the foundational knowledge of the teaching of probability and statistics and how to use the elements of statistics to interpret and solve problems in elementary and middle school classrooms.

TCH-ED 156 Field Experience: Music and Visual Arts Credit: 1
This field experience is designed in conjunction with TCH-ED 251 to provide students with real-world interactions to study the development of children from birth to adolescence. Field experience settings have been arranged to provide students with an opportunity to observe and interact with children as they study the four stages of development.

TCH-ED 201 Children’s Literature Credits: 3
This course emphasizes the critical analysis and selection of a variety of genres of multicultural children’s literature in order to create “windows and mirrors” (Bishop, 1990) through literature for diverse educational settings. It will emphasize the skills and dispositions needed to share literature with culturally and linguistically diverse groups of children and explore prevalent myths and stereotypes in society that are often reflected in children’s and young adult literature.

TCH-ED 202 Literature for Adolescents Credits: 3
Focus upon literature for adolescents and ethnic literature, specifically, and upon the special reading interests of the adolescent in relation to the methods and materials of reading in grades 6-12, generally. Attention to literature selection standards, censorship, individualized instruction, and literary theory.

TCH-ED 203 Literature for Adults Credits: 3
This course is designed to provide students with the information they will use as educators to design developmentally appropriate practices for the children they will work with in the classroom setting, thus discussions about how the information is translated into the classroom will be applied.

TCH-ED 250 Foundations of Urban Education Credits: 3
This course is designed to introduce students to the social and philosophical issues in urban education and will include an emphasis on culture, race, class, and ethnicity as they relate to schooling in urban America.

TCH-ED 251 Child and Adolescent Development for Urban Educators Credits: 3
This course is designed to introduce students to the social and philosophical issues in urban education and will include an emphasis on culture, race, class, and ethnicity as they relate to schooling in urban America.

TCH-ED 252 Field Exp: Child/Adolescent Development Credit: 1
This field experience is designed in conjunction with TCH-ED 251 to provide students with real-world interactions to study the development of children from birth to adolescence. Field experience settings have been arranged to provide students with an opportunity to observe and interact with children as they study the four stages of development.

TCH-ED 253 Urban Education Seminar II: Social Justice Credit: 1
This seminar aligns with the other semester experiences and allows students an opportunity to dialogue about the possible application of their experience work as it applies to teaching in an urban school. Students will be introduced to current topics in urban education and society; identify, develop and enhance study strategies; observe, listen and think critically, sharpen writing skills; and work effectively in groups as they explore social justice and the relationship between society and schools.

TCH-ED 254 Math Methods for Urban Teachers: Geometry Credits: 2
Designed for elementary school teachers. A constructive development of geometry and concepts from elementary teacher education; applications will be made to connect with elementary curriculum.

TCH-ED 255 Integrated Music and Visual Arts Credits: 3
Basic principles of creativity and their application in the multicultural teaching of art, creative dance and musical and rhythmic interpretation will be explored. An emphasis is placed on interrelationship of these disciplines and their integration into the curriculum. Special emphasis will be placed on helping students to develop a wider and more respectful understanding of out nation’s cultural diversity as reflected in all art forms. Students will be exposed to the literature, poetry, theater, visual art and music contributed by African-Americans, Hispanic Americans and Native Americans among other.

TCH-ED 256 Field Experience: Music and Visual Arts Credit: 1
The field experience is intended to give students an opportunity to see the application of learning theory and integration of the arts in authentic classroom situations.

TCH-ED 258 Math Methods for Urban Teachers: Probability and Statistics Credits: 2
Designed for Elementary and Middle School Teachers. This course is designed to provide undergraduate students in elementary and middle school mathematics with the foundational knowledge of the teaching of probability and statistics and how to use the elements of statistics to interpret and solve problems in elementary and middle school classrooms.
TCH-ED 259 Introduction to Urban Teaching Credits: 3
This course is designed to introduce students to the sociopolitical context of urban education, schooling, teaching and learning. It will provide an overview of education in a multicultural democracy, mostly African Americans, Latino Americans, and other racial/ethnic groups and immigrants. Specifically, it will introduce students to the notion of teaching for social justice, the social justice teacher and social empowerment. Opportunities will be provided for students to review research, debunk stereotypes, negative views, and to recognize urban learners as capable, motivated, and resilient. The ultimate goal of this course is to facilitate experiences that will enable students to develop the knowledge, skills and dispositions needed for learning in urban schools.

TCH-ED 266 Urban Education IV: Classroom Management Credit: 1
As a co-requisite to Introduction to Urban Teaching, students will spend 60 hours in urban schools working with diverse student populations, specifically; students will work with African Americans, Latino Americans, and English Language Learners grades K-8. Reflection and discussion of clinical experiences will occur during the urban education seminar and Introduction to urban education classes. Students will keep a reflective journal of their experiences working with diverse learners.

TCH-ED 300 Summer Community Experience Credits: 3
This course provides an in-depth examination into both the evolution of ghetto communities and dynamics of community building in inner cities, with special emphasis on Kansas City, Missouri. In addition, theories of educational psychology as well as child and adolescent behavior will be infused to assist participants in developing age appropriate mentoring/teaching strategies and activities.

TCH-ED 310 Classroom Climate and Organization Credits: 3
This course is focused on understanding classroom practices that support student cognitive and social development, that supports learning for students from diverse cultural and experiential backgrounds; and developing a well-organized, attractive and functional physical space for learning.

TCH-ED 311 Curriculum and Learning Theory Credits: 4
Focus on classroom organization, building relationships with students, and applying theoretical knowledge of child development to the analysis of contexts impacting students’ educational experiences. Classroom processes and teacher interactions that undergird effective instruction and proactive classroom management.

TCH-ED 312 Legal and Ethical Aspects of Teaching Credits: 3
This course provides an introduction to landmark court cases, federal and state laws, and regulations that frame students’ and teachers’ rights and responsibilities and that provide guidance for ethical professional practices.

TCH-ED 314 Cultural Diversity and Teaching English Language Learners Credits: 3
Foundational knowledge on teaching diverse populations and practical instructional approaches for meeting the needs of linguistically and culturally diverse learners. Emphasis on studying and applying instructional strategies that are appropriate for addressing the unique needs of children whose primary language may not be English.

TCH-ED 315 Assessment and Data Literacy Credits: 3
Data collection and assessment strategies—including formative, summative, formal, and informal—to be used in developing student learning profiles, planning learning experiences, and monitoring student progress toward academic goals. Topics include the impact of assessment on equitable education for diverse learners, critical observation and questioning, basic qualitative and quantitative data analysis, working with data teams, collaboration/communication with families and other educational stakeholders, setting and monitoring learning goals, and the ethics of data collection and sharing.

TCH-ED 316 Reading and Language Arts I Credits: 4
This course emphasizes learning theories and methods for teaching and assessing literacy. It will primarily focus on the components of a culturally responsive literacy curriculum for elementary students in diverse, urban contexts. This course is field-based and there will be multiple opportunities for observing, teaching, and assessing elementary school children.

Co-requisites: TCH-ED 397.

TCH-ED 317 Reading and Language Arts II Credits: 4
This course emphasizes methods for elementary literacy instruction and assessment. The course will primarily focus on the components of a culturally responsive writing curriculum for elementary students in diverse, urban contexts. This course includes a supervised field experience where teacher candidates implement literacy assessment and instruction with students.

Prerequisites: TCH-ED 316.

TCH-ED 318 Literacy Assessment and Instruction Credits: 3
Focus on using formal and informal assessments to design appropriate literacy instruction for diverse learners in urban elementary classrooms.
TCH-ED 330 Analyzing Learning Environments in Urban Contexts Credits: 3
This course serves as the major vehicle for articulating a programmatic construction of classroom management as establishing productive learning environments, facilitating social interaction, and planning relevant and engaging learning experiences based upon deep knowledge of individual students’ contexts and cultures. Co-requisites: TCH-ED 422.

TCH-ED 333 Learning Environments: Birth to Grade 3 Credits: 3
Course provides an analysis of learning environments (community, school, and classroom) as socio-emotional and physical spaces that nurture learning and development of early childhood learners in urban settings. Teacher candidates use the analysis to frame the design of learning environments as context and content of meaning making.

TCH-ED 350 Multi-Media Production For The Classroom Credit: 1
An introductory course in the media production techniques involving knowledge and practical use of computers, scanners, digital video, digital audio and graphics to create professional multimedia for use in the classroom. The class is designed for prospective and current classroom teachers.

TCH-ED 351 Literature for a Lifetime Credits: 6
This course will provide students with an encompassing survey of fiction and non-fiction literature appropriate for all age ranges from the young child to adult. Lectures and discussions will focus on the value of literature as a tool for thinking, as a way of illuminating modern life, as a means of understanding history and human behavior, and as a source of aesthetic pleasure and lifelong enjoyment. Students will learn how to select and critique both the media used in illustrated books and the literacy techniques and forms of the many genres of literature. In this course special emphasis will be placed on literature that reflects life in many cultures and periods of history, in particular from those racial and ethnic sources that make modern America such a pluralistic and diverse society. There will also be an emphasis on the universal themes that run through literature of the societies.

TCH-ED 365 Seminar in Teacher Identity, Power and Privilege Credit: 1
Focus on developing teacher candidates’ knowledge of themselves and their roles in facilitating learning for diverse student populations. Acquaints pre-service teachers with three areas of multicultural education: knowing one’s self, knowing diverse student populations, and knowing effective practices which will accelerate the learning of the diverse student populations.

TCH-ED 366 Field Experience: Literacy Credit: 1
Students will spend 100 hours working in an urban school classroom. Students will have the opportunity to apply learning and lessons designed in the semester’s pedagogical courses, particularly Integrated Instruction: Language Arts and Social Studies. Students will work with their seminar leader, having the opportunity to be observed and conference about their teaching.

TCH-ED 385 Teaching and Learning with Technology Credits: 3
This course addresses the fundamentals of using technology in education and planning instruction to engage PK-12 students in problem solving and critical thinking using technology. Topics within the course are informed by International Society for Technology in Education Standards (ISTE), InTASC Model Core Teaching Standards and Learning Progressions for Teachers 1.0, Missouri Teacher Standards and Quality Indicators, and Missouri Learning Standards.

TCH-ED 396 English Language Study for Middle and High School Teachers Credits: 3
Explores the fundamentals of teaching English language and grammar study, emphasizing patterns in the English language including sounds, words, sentences, meaning, and discourse as they are manifested in daily lives. Educationally relevant topics, such as applications of sociolinguistics to the teaching of English language and literature, varieties of grammar, and linguistic descriptions of styles and registers are an integral part of the course.

TCH-ED 397 Practicum I - Elementary Credit: 1
The overarching goal for this introductory field experience is to help teacher candidates shift their perspectives from that of a student to that of a classroom teacher. Emphasis is on observing the relationship among students’ experiences within and outside of school, and planning specific learning experiences for academic and social growth and development. Additionally, teacher candidates attend to the individual student’s responses to learning experiences, as well as the social dynamic among students as they work together in a classroom.

TCH-ED 398 Practicum II – Elementary Credit: 1
This field experience is part of Block 2—the second field experience within a four-block sequence. The overarching goal is for teacher candidates to observe the implementation of the school curriculum in specific disciplines. Topics include the structure of the discipline, interrelatedness among basic concepts, discipline specific practices, and the design of instruction to facilitate deep learning.

Prerequisites: TCH-ED 397.

TCH-ED 399 Continuous Enrollment Credit: 1
A practicum experience for students delaying student teaching for one semester.

TCH-ED 400 Child Development Credits: 3
Intellectual and social development from birth through adolescence and their implications for the educative process.

TCH-ED 402 Integrated Arts Credits: 3
Basic principles of creativity and their application in the multicultural teaching of art, creative dramatics, creative movement and musical rhythmic interpretation will be explored. An emphasis will be placed on the interrelationship of these disciplines and integration into the curriculum.

TCH-ED 403 Educational Psychology Credits: 3
This course will provide an introductory examination of psychological research and theory which have implications for, and applications to learning and instruction in interactive social contexts, such as classrooms.
TCH-ED 404 Education of the Exceptional Child and Youth Credits: 3
Students will be introduced to identification and educational intervention strategies for educating exceptional children and adolescents in inclusive classroom situations. This course requires a 10-hour field experience.

TCH-ED 405 Practicum I Credit: 1
Taken in conjunction with elementary and middle school methods courses. Students are expected to spend 60 hours at classroom sites throughout the semester.

TCH-ED 406 Practicum II. Elementary Credit: 1
Taken in conjunction with elementary courses. Students are expected to spend 60 hours at classroom sites during the semester.

TCH-ED 407 Practicum III - Elementary Credit: 1
Taken in conjunction with the elementary courses. Students are expected to spend 60 hours at classroom sites during the semester.

TCH-ED 408WI Advanced Foundations Credits: 3
The course will concentrate on the development of a philosophical, historical and social model to assist in understanding the complexities, strengths and problems of present day education.
Prerequisite: RooWriter.

TCH-ED 409 Curriculum and Assessment Credits: 3
Curriculum and Assessment is the first of a three-part course sequence designed to assist the preservice teacher in acquiring the knowledge and skills to become an effective practitioner in a world of constant change. The preservice teacher in turn will become a professional educator and facilitator of learning by developing an understanding of the varied roles and relationships that are an integral part of the teaching/learning process. This course focuses on the meaning of curriculum, the role of standards in curriculum design and implementation, the role of assessment is used to effectively enhance instruction and student learning.

TCH-ED 410 Teacher in the Classroom Credits: 2
This is the second of a three-part sequence designed to assist the preservice teacher in acquiring the knowledge and skills to become an effective practitioner in a world of constant change. The preservice teacher in turn will become a professional educator and facilitator of learning by developing an understanding of the varied roles and relationships that are an integral part of the teaching/learning process. It is designed to assist preservice teachers in not only make the transformation from to student to professional educator, but also in developing the knowledge, management, and reflective skills to implement a well-planned and effective curriculum that meets the needs, interests challenges and lives of students who live in and will function in an increasingly culturally diverse, democratic society in an interdependent world.

TCH-ED 411 Teacher in the Classroom Credits: 2
This is the third of a three-part sequence designed to assist the preservice teacher in acquiring the knowledge and skills to become an effective practitioner in a world of constant change. The preservice teacher in turn will become a professional educator and facilitator of learning by developing an understanding of the varied roles and relationships that are an integral part of the teaching/learning process. This course focuses on the meaning of curriculum, the role of standards in curriculum design and implementation, the role of assessment is used to effectively enhance instruction and student learning.

TCH-ED 412 Language Arts in the Elementary and Middle School Credits: 3
Provides instruction in planning, implementing and assessing language arts activities. Critical analysis in classroom settings is emphasized. Other issues discussed include: literature-based instruction, multicultural perspectives, special needs students and professional behaviors.

TCH-ED 413 Mathematics in the Elementary School I Credits: 3
Mathematics-specific pedagogy. Methods, techniques, tools and materials for the effective teaching of mathematics. Focuses on the principles, methods, and materials of elementary school mathematics instruction and state curriculum in the context of diverse student backgrounds.

TCH-ED 414 General Methods Elementary and Middle - 3 Credits: 2
To summarize and synthesize the pre-service educational experience. To become knowledgeable about the realities of a school life in a "real" classroom.

TCH-ED 415 Reading 1: Intro to Literacy and Reading Instruction Credits: 4
This course introduces concepts about literacy processes; i.e., social, cultural, cognitive and linguistic foundations of reading and writing processes. The major focus of the course is on learning components of a comprehensive reading curriculum, and a range of instructional approaches and methods appropriate for learners at different stages of literacy development.

TCH-ED 416 Reading II: Assessing and Teaching Diverse Learners Credits: 4
This course focuses on understanding the major components of reading processes (phonemic awareness, word identification and phonics, vocabulary and background knowledge, fluency, comprehension strategies, and motivation) and how they are integrated in fluent reading for individual students at different stages of literacy development. The major project for the course involves assessing and teaching an individual student of the course of the semester. Teacher candidates should also assess and teach small groups of readers.
Prerequisites: TCH-ED 415, admission into teacher education program.

TCH-ED 417 Science Methods in the Elementary School Credits: 3
Prepares teacher candidates in teaching methods focused on ways of involving elementary-aged children (grades 1-6) in science activities and experiences designed to promote curiosity, inquiry-based investigation, and application of scientific concepts as they explore the world.

TCH-ED 418 Social Studies in the Elementary School Credits: 3
The social studies methods course is designed to provide the prospective teacher with the theory, content, powerful teaching practices, and understanding of the role of social studies in a global and multicultural society. The prospective teacher will acquire the knowledge, skills and dispositions needed to design and enact a transformative social studies curriculum that prepares the young to develop civic competence.
TCH-ED 419 Student Teaching in Elementary School Credits: 3-9
Culminating field experience in an elementary school (grades 1-6). Elementary program student teachers engage in an all-day, full semester placement in an elementary classroom. Elementary majors must enroll in 9 credit hours. Hours for other programs using this field experience vary. Teacher candidates should seek advisor approval.
Prerequisites: TCH-ED 479.

TCH-ED 420 Adolescent Development Credits: 3
Various aspects of physiological, emotional, cognitive, social and moral development in the transition from childhood to adolescence will be considered. Attention is focused on a conception of adolescence that is grounded on current research and theory.

TCH-ED 422 Practicum I - Middle and High School Credit: 1
The overarching goal for this introductory field experience is to help teacher candidates shift their perspectives from that of a student to that of a classroom teacher. Emphasis is on observing the relationship among students’ experiences within and outside of school, and planning specific learning experiences for academic and social growth and development. Additionally, teacher candidates attend to the individual student’s responses to learning experiences, as well as the social dynamic among students as they work together in a classroom.
Prerequisites: Admission to the Teacher Education Professional Program.

TCH-ED 423 Practicum II - Middle and High School Credit: 1
This field experience is part of Block 2—the second field experience within a four-block sequence. The overarching goal is for teacher candidates to observe the implementation of the school curriculum in specific disciplines. Topics include the structure of the discipline, interrelatedness among basic concepts, discipline specific practices, and the design of instruction to facilitate deep learning.
Prerequisites: TCH-ED 422.

TCH-ED 424 Practicum III - Middle and High School Credit: 1
This field experience is part of Block 3—the third field experience within a four-block sequence. The overarching goal for this field experience is for teacher candidates to apply conceptual and theoretical knowledge to practice in identifying appropriate instructional strategies, planning instruction, and assessing learning. The emphasis is on understanding the relationships among instructional practices, learner characteristics, and learning outcomes.
Prerequisites: TCH-ED 423.

TCH-ED 425 General Methods - Secondary 2 Credits: 2
The intent of this course is to prepare pre-service teachers to be effective managers of instruction who are skillful in interpersonal communication. Course activities include opportunities for applying techniques based upon a variety of management/discipline models. Field experiences permit on-site observation of various management styles.

TCH-ED 427 Reading in the Secondary School Credits: 3
An examination of the reading process and study of methods and materials used by the secondary school classroom teacher in assessing student reading ability, determining the readability of content area materials and teaching students of all reading levels how to comprehend their textbooks and other printed instructional materials in various content area subjects.

TCH-ED 429 Mathematics in the Elementary School II Credits: 3
Mathematics-specific pedagogy. Methods, techniques, tools and materials for the effective teaching of mathematics. Focuses on the principles, methods, and materials of elementary school mathematics instruction and state curriculum in the context of diverse student backgrounds.
Prerequisites: TCH-ED 413.
Co-requisites: TCH-ED 479.

TCH-ED 430 Gateway to Teaching Credits: 3
This course is designed to introduce pre-service teachers to the education profession and to the teacher education program at UMKC. Through lecture discussion and field experiences the students will examine the social, political, cultural and professional aspects of teaching in 21st century America. In addition, the students will be given an overview of the teacher preparation program and the requirements and expectations for completing the program and qualifying for a certificate to teach in the state of Missouri.
Prerequisites: Admission into the Teacher Education program.

TCH-ED 431 Summer Community Experience Credits: 3
This field-based course provides an in-depth examination into both the evolution of urban communities and dynamics of community building in inner cities, with special emphasis on Kansas City, Missouri. In addition, theories of educational psychology as well as child and adolescent behavior will be infused to assist participants in developing age appropriate mentoring/teaching strategies and activities. Students in the course are engaged with the community through field trips, simulations, course events, and community service.

TCH-ED 432 Special Methods of Teaching English in Middle and High Schools Credits: 3
This course stresses the skills, knowledge, and dispositions pertinent to teaching English Language Arts in middle schools and high schools.

TCH-ED 433 Special Methods of Teaching Mathematics in Middle and High Schools Credits: 3
This course stresses the skills, knowledge, and dispositions pertinent to teaching mathematics in middle schools and high schools.
This seminar course is designed to strengthen teacher candidates’ content knowledge for designing and enacting transformative social science curriculum and pedagogy. Students will actively examine key content, concepts, themes, issues, multiple perspectives, and enduring questions embedded in the social science disciplines such as history, geography, economics, anthropology, sociology, political science and psychology and cultural and social contexts to enhance their knowledge, skills, and confidence for designing and enacting a transformative social science curriculum for diverse middle and high school students’ development of civic competence.

TCH-ED 436 Special Methods of Teaching Social Science in Middle and High Schools Credits: 3
This course will assist teacher candidates in developing the knowledge, skills, and dispositions needed to design and enact powerful transformative social studies curricular experiences, to foster middle and secondary school students’ abilities to make informed, reasoned decisions and actions for the public good. Students will be introduced to powerful teaching practices, issues, and resources in secondary school social science.

TCH-ED 437 Student Teaching in High School Credits: 3-9
Culminating experience in a secondary school (grades 9-12).

TCH-ED 438 Culturally Responsive Strategies for Teaching Diverse Learners Credits: 3
This course is designed to move students from cultural awareness to the application of culturally responsive practice. Specifically, this course will heighten students’ understanding of cultural characteristics and their relationships to teaching and learning. Students will learn culturally responsive strategies and their enactment in instruction for diverse learners.

TCH-ED 440 Introduction To Early Childhood Education Credits: 3
This course is an introduction to the historical, theoretical, ethical, and pedagogical underpinnings of the early childhood education profession. Teacher candidates explore play, inquiry-based learning, documentation, and the role of family and community within diverse curriculum approaches to early childhood education.

TCH-ED 441 Language Development Credits: 3
An introduction to what language is, how first and second languages are acquired, and how to support language development in early childhood classrooms in collaboration with families and communities. Teacher candidates construct knowledge through university classroom experiences, observations of focal children in urban educational settings, and family interviews.

TCH-ED 442 Assessment, Screening, and Data-Informed Early Childhood Teaching Credits: 3
This course provides analysis of assessment methods, application of authentic assessment throughout the teaching cycle and investigation of data-based decision-making through focused inquiry and application in the practicum setting.

TCH-ED 443 Mathematics in Early Childhood II Credits: 3
Approaches to assessing and developing mathematical competencies in young children, birth through Grade 3. Emphasis is placed upon mathematics as a sense-making tool through which actions such as observation, classification, ordering, pattern seeking, and testing of ideas drive experiences and problem solving in the child’s immediate environment.

**Prerequisites:** TCH-ED 444.

TCH-ED 444 Mathematics in Early Childhood I Credits: 3
Approaches to developing mathematical competencies in young children, through Grade 3. Emphasis is placed upon mathematics as a sense-making tool through which actions such as observation, classification, ordering, pattern seeking, and testing of ideas drive experiences and problem solving in the child’s immediate environment. A variety of materials and tools are studied in terms of the ways they help children explore, develop and test ideas, construct meaning, and communicate ideas.

TCH-ED 445 Science In Early Childhood Credits: 3
This seminar provides an exploration of the major concepts and culturally responsive teaching strategies in early childhood science (birth –Grade 3). Teacher candidates analyze inquiry processes and tools in science to develop integrated learning experiences that ensure mastery of content and promote curiosity, creativity, inquiry, and self-awareness as learners explore their world.

TCH-ED 446 Early Childhood Creative Activities Credits: 3
Analysis of symbolic representations, creativity, and imagination as a foundation for learning and development of diverse learners in urban early childhood settings. Hands on exploration of creative materials and activities from different representational systems to shape planning of learning experiences and environments that enhance learning and promote children’s creative abilities development.

TCH-ED 447 Social Studies in Early Childhood Credits: 3
This course provides an exploration of the major concepts and teaching strategies in early childhood social studies (birth-Grade 3). Teacher candidates analyze the processes and tools of scientific inquiry related to social studies to design integrated learning experiences that incorporate authentic local and global issues relevant to the learners.

TCH-ED 450 Integrating The Curriculum In Early Childhood Education Credits: 3-4
A culminating curriculum course for early childhood students. The overall goal is to help students become more aware, skilled and informed about developmentally and educationally appropriate practice and curriculum for children during early childhood. Its focus is on constructing an integrated curriculum. A field-based experience is included.
TCH-ED 451 Child Guidance in Early Childhood Classrooms Credits: 3
This course provides an analysis of theory and research on child guidance to frame teacher candidates’ development of guidance procedures that meet ethical guidelines and foster a classroom environment conducive to optimal learning and development of early childhood learners.

TCH-ED 452 Family and Program Relationships in Early Childhood Education Credits: 3
This course provides an analysis of purposes and procedures of family, school and community partnerships that frame teacher candidates’ collaborations, consultation, and teaching of early childhood learners in urban settings.

TCH-ED 453 Learning from Parents Credits: 2
Designed to provide students with direct interactions with parents whose children are participating in early childhood programs, birth to age 8. Emphasis is placed upon students’ understanding of, and sensitivity to, parents’ perspectives regarding the care and education of their young children and recognition of parents as significant informants about their children.

Co-requisites: TCH-ED 452.

TCH-ED 454 Human Relations In The Early Childhood Classroom Credits: 3
Students will analyze the connections between an effective helping relationship and effective teaching in the early childhood classroom. Effective interpersonal communication skills will be identified and practiced. The development of self-concept will be discussed.

TCH-ED 455 Student Teaching In Preschool Credits: 6-10
Observation and student teaching under supervision in a preschool setting.

TCH-ED 456 Student Teaching in Early Childhood Credits: 9
Culminating field experience in Early Childhood. Student teachers engage in an all day, full-semester placement in a K-3 early childhood setting.

Co-requisites: TCH-ED 486.

TCH-ED 457 Infant and Toddler Care and Education Credits: 3
This course provides an investigation into infant/toddler care and education theories and practices. Teacher candidates explore relevant curriculum and teaching methods, visit infant and toddler programs, analyze state regulations and national standards for quality care, and evaluate early learning environments.

Co-requisites: TCH-ED 452.

TCH-ED 458 Practicum For Learning About Infants And Toddlers Credit: 1
The purpose of this course is to learn about child care and education practices in various centers. We will discuss how practices are influenced or constrained by human biology and developmental stages, as they are by ecological and environment pressures such as mothers’ work roles. The central themes of the course can be summarized by the phrases purposeful care practices and the optimal practices for infants and toddlers.

TCH-ED 459 Early Childhood Program Management Credits: 3
This course provides an exploration of the program manager’s role as a leader who establishes school culture, implements and maintains policies and procedures, and partners with families and communities to facilitate high performing urban early childhood learning environments. Teacher candidates analyze licensing and accreditation regulations that contribute to health, safety and nutrition of learners; interview administrator and community members; and observe at an urban early childhood program.

Co-requisites: TCH-ED 457.

TCH-ED 460 Middle School Curriculum Credits: 2
This course offers the pre-service teachers an overview of middle school goals, basic principles, and organizations. The course explores interdisciplinary teaming, flexible scheduling, exploratory and advisory programs, and other aspects of the organization within the context of middle school goals and practices.

TCH-ED 461 Student Teaching In Middle School Credits: 6-9
Culminating field experience in a middle school setting. Student teachers engage in an all-day, full semester placement in a middle school classroom. Middle School Education majors must enroll in 9 credit hours. Hours for other programs using this field experience vary. Teacher candidates should seek advisor approval.

Prerequisites: TCH-ED 424.

TCH-ED 462 Middle School Philosophy and Organization Credits: 3
This course offers teacher candidates an overview of middle school goals, basic principles, and organizations. Topics include interdisciplinary teaming, flexible scheduling, exploratory and advisory programs, and other aspects of the organization within the context of middle school goals and practices.

Co-requisites: TCH-ED 457.

TCH-ED 463 Literacy Intervention across the Disciplines Credits: 3
Examination of research, policy, and effective practice of literacy intervention in middle and secondary disciplinary classrooms (i.e. English/language arts, mathematics, science, social studies). Topics will include recognition of reading and writing difficulties, response-to-intervention (RTI), scaffolding instruction for grade level reading comprehension, metacognition, and culturally responsive literacy instruction.

TCH-ED 464 Math Methods for Urban Teachers Credits: 3
Mathematics-specific pedagogy for urban teachers. Methods, techniques, tools and materials for the effective teaching of mathematics. Emphasis on problem solving and reasoning skills in applying mathematics and on teaching in the context of diverse student backgrounds. Portions of this course will occur in urban school classrooms. Students will apply learning to urban classrooms.

Prerequisites: Admission into the Institute for Urban Education.
TCH-ED 465 Urban Education VI: Teaching Diverse Students Credit: 1
This interactive course will investigate and examine the principles of teaching diverse students and factors influencing effectiveness of instruction, including empowering African American males, teaching students from diverse populations and working with students with special needs. Some of the class sessions will be taught electronically and work will be submitted electronically.
Prerequisites: Admission into the Institute for Urban Education.

TCH-ED 466 Field Experience: Diverse Learners Credit: 1
Students will spend a minimum of 90 hours in an urban school classroom. Students will have the opportunity to apply learning and lessons designed in the semester's pedagogical courses, particularly Best Practices for Teaching Math, Science, and strategies for working with diverse learners. Students will work with their seminar leader, having the opportunity to be observed and conference about their teaching.
Prerequisites: Admission into the Institute for Urban Education.

Co-requisites: TCH-ED 465.

TCH-ED 470 Philosophy and History of Science and Technology Credits: 3
This course uses an historical survey to introduce the main philosophical interpretations of the nature and structure of both science and technology. Core concepts such as prediction, explanation, progress, truth, and utility will be examined in light of various philosophical perspectives. Following this, case study methodology will be used to examine interactions among science, technology, and society. Although the major focus will be upon modern Western culture, some attention will be paid to earlier and non-Western cultures. Case studies to be examined include: Perception and Estimation, nuclear power and pesticides; the impact of high technology upon medicine; and the estimated cost/benefit of computer-mediated communications, for example, the Internet.

TCH-ED 475 Working with Families and Communities Credits: 3
This course provides an in-depth examination of research and theory relative to children, family and community which have implications for and application to learning and instruction. Emphasis will be placed on the exploration and critical examination of and insights into the significance of school-family relationships and their relevance to teaching and learning.

TCH-ED 478 Seminar - Elementary Credits: 3
Supports the culminating student teaching experience and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences, for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessment for individual learners. Student teachers will work cooperatively with school personnel, the larger professional community, and families to meet students' needs.

TCH-ED 481 Practicum II Early Childhood Credit: 1
This field experience is part of Block 2—the second field experience within a four-block sequence. The overarching goal for this field experience is for teacher candidates to apply conceptual and theoretical knowledge to practice in identifying appropriate instructional strategies, planning instruction, and assessing learning. The emphasis is on understanding the relationship among instructional practices, learner characteristics, and learning outcomes. Prerequisites: TCH-ED 398.

TCH-ED 480 Practicum I Early Childhood Credit: 1
The overarching goal for this introductory field experience is to help teacher candidates shift their perspectives from that of a student to that of a classroom teacher. Emphasis is on observing the relationship among students' experiences within and outside of school, and planning specific learning experiences for academic and social growth and development. Additionally, teacher candidates attend to the individual student's responses to learning experiences, as well as the social dynamic among students as they work together in a classroom.

TCH-ED 481 Practicum II Early Childhood Credit: 1
This field experience is part of Block 2—the second field experience within a four-block sequence. The overarching goal is for teacher candidates to observe the implementation of the school curriculum in specific disciplines. Topics include the structure of the discipline, interrelatedness among basic concepts, discipline specific practices, and the design of instruction to facilitate deep learning.

TCH-ED 482 Seminar in Teaching and Evaluating Writing Credits: 3
This course is designed to provide future teachers with a framework for success in the teaching of writing within the English Language Arts curriculum. The goal is to help students turn sound theory provided by the National Writing Project, the National Council of Teachers of English, and other experts in the field of rhetoric and composition into effective practice in the classroom.

TCH-ED 483 Early Childhood Literacy I Credits: 4
This course emphasizes learning theories and methods for early literacy instruction and assessment. It will primarily focus on the components of a culturally responsive literacy curriculum for early childhood students in diverse, urban preprimary and kindergarten contexts. This course includes a field experience with multiple opportunities for observing, teaching, and assessing the literacy development of young children throughout the teaching cycle including engagement with their families and communities.

TCH-ED 484 Early Childhood Literacy II Credits: 4
This course emphasizes learning theories and methods for early literacy instruction and assessment. The course will primarily focus on the components of a culturally responsive curriculum for early childhood students in diverse, urban kindergarten through 3rd grade contexts. This course includes a supervised field experience with multiple opportunities for observing, teaching, and assessing the literacy development of young children throughout the teaching cycle including engaging with their families and communities.
TCH-ED 485 Language Arts in the Early Childhood Classroom: 3
This course provides instruction in planning, implementing, and assessing early childhood (birth through third-grade) language arts activities. Critical analysis in classroom settings is emphasized. Other issues discussed include: literature-based instruction, multicultural perspectives, special needs students and professional behaviors.

TCH-ED 486 Seminar - Early Childhood Credits: 3
Supports the culminating student teaching experience and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences, for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessment for individual learners. Student teachers will work cooperatively with school personnel, the larger professional community, and families to meet students’ needs.
Co-requisites: TCH-ED 456.

TCH-ED 487 Practicum III - Early Childhood Credit: 1
This field experience is part of Block 3, the third field experience within a four-block sequence. The overarching goal for this field experience is for teacher candidates to apply conceptual and theoretical knowledge to practice in identifying appropriate instructional strategies, planning instruction, and assessing learning. The emphasis is on understanding the relationships among instructional practices, learner characteristics, and learning outcomes.

TCH-ED 491 Seminar - Art Education Credits: 3
Supports the culminating student teaching experience and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessment for individual learners. Student teachers will work cooperatively with school personnel, the larger professional community, and families to meet students’ needs.

TCH-ED 492 Integrated Instruction: Language Arts and Social Studies Credits: 6
This course will focus on teaching Language Arts and Social Studies in the Urban Elementary School. Methods, techniques, tools and materials for the effective teaching will be observed and practiced. Students will work closely with in-service teachers and their university instructor. There will be emphasis on balanced literacy, readers’ and writers’ workshops, literacy development, assessment techniques and the integration of social studies and language arts. Curriculum mapping and unit planning will be introduced and practiced in this course. This course will focus on school and classroom organization and management, detailed lesson planning, use of instructional materials and media in the teaching of language arts and social studies.
Prerequisites: Admission into the Institute of Urban Education.

TCH-ED 493 Seminar - Mathematics Credits: 3
Supports the culminating student teaching experience and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessment for individual learners. Student teachers will work cooperatively with school personnel, the larger professional community, and families to meet students’ needs.
Co-Requisites: TCH-ED 437 or TCH-ED 461.

TCH-ED 494 Seminar - English/Language Arts Credits: 3
Supports the culminating student teaching experience and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessment for individual learners. Student teachers will work cooperatively with school personnel, the larger professional community, and families to meet students’ needs.
Co-requisites: TCH-ED 437 or TCH-ED 461.

TCH-ED 495 Seminar - Science Credits: 3
Supports the culminating student teaching experience and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessment for individual learners. Student teachers will work cooperatively with school personnel, the larger professional community, and families to meet students’ needs.
Co-requisites: TCH-ED 437 or TCH-ED 461.

TCH-ED 496 Seminar - Social Science Credits: 3
Supports the culminating student teaching experience and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessment for individual learners. Student teachers will work cooperatively with school personnel, the larger professional community, and families to meet students’ needs.
Co-requisites: TCH-ED 437 or TCH-ED 461.

TCH-ED 497 Teaching Internship Credits: 3-8
Teacher candidates will work 3 to 5 days at the school site in which the candidate will complete the year-long teaching internship.
Prerequisites: TCH-ED 398.
TCH-ED 498 Urban Education Seminar VII Credit: 1
This seminar meets weekly for 2 hours and is led by a clinical professor who serves as a mentor for students throughout their program. Students will work closely with mentor teachers in the application and integration of social justice and the elementary school curriculum. A critical analysis of current practices, teaching methods, materials, and how social justice manifests in curriculum and instruction. Emphasis is on understanding cultural diversity and cultural influences on learning. Concepts of a classroom community, parental relations, and democratic classroom processes will be addressed. Students will have opportunities to apply their learning to urban classrooms.

**Prerequisites:** Admission into the Institute for Urban Education.

TCH-ED 499 Capstone Credits: 2
This seminar is designed to complement the student teaching experience through the discussion and analysis of school-based issues. It is intended to help further develop a reflective, critical and analytical approach to pedagogical decision making through supportive collaboration.

TCH-ED 5312 Legal and Ethical Aspects of Teaching Credits: 3
This course provides an introduction to landmark court cases, federal and state laws, and regulations that frame students’ and teachers’ rights and responsibilities and that provide guidance for ethical professional practices.

TCH-ED 5314 Cultural Diversity and Teaching English Language Learners Credits: 3
Foundational knowledge on teaching diverse populations and practical instructional approaches for meeting the needs of linguistically and culturally diverse learners. Emphasis on studying and applying instructional strategies that are appropriate for addressing the unique needs of children whose primary language may not be English.

TCH-ED 5315 Assessment and Data Literacy Credits: 3
Data collection and assessment strategies—including formative, summative, formal, and informal—to be used in developing student learning profiles, planning learning experiences, and monitoring student progress toward academic goals. Topics include the impact of assessment on equitable education for diverse learners, critical observation and questioning, basic qualitative and quantitative data analysis, working with data teams, collaboration/communication with families and other educational stakeholders, setting and monitoring learning goals, and the ethics of data collection and sharing.

TCH-ED 5385 Teaching and Learning with Technology Credits: 3
This course addresses the fundamentals of using technology in education and planning instruction to engage PK-12 students in problem solving and critical thinking using technology. Topics within the course are informed by International Society for Technology in Education Standards (ISTE), InTASC Model Core Teaching Standards and Learning Progressions for Teachers 1.0, Missouri Teacher Standards and Quality Indicators, and Missouri Learning Standards.

TCH-ED 5396 English Language Study for Middle and High School Teachers Credits: 3
Explores the fundamentals of teaching English language and grammar study, emphasizing patterns in the English language including sounds, words, sentences, meaning, and discourse as they are manifested in daily lives. Educationally relevant topics, such as applications of sociolinguistics to the teaching of English language and literature, varieties of grammar, and linguistic descriptions of styles and registers are an integral part of the course.

TCH-ED 5404 Education of the Exceptional Child and Youth Credits: 3
Students will be introduced to identification and educational intervention strategies for educating exceptional children and adolescents in inclusive classroom situations. This course requires a 10-hour field experience.

TCH-ED 5412 Language Arts in the Elementary and Middle School Credits: 3
Provides instruction in planning, implementing and assessing language arts activities. Critical analysis in classroom settings is emphasized. Other issues discussed include: literature-based instruction, multicultural perspectives, and special needs students and professional behaviors.

TCH-ED 5413 Mathematics in the Elementary School I Credits: 3
Mathematics-specific pedagogy. Methods, techniques, tools and materials for the effective teaching of mathematics. Focus on the principles, methods, and materials of elementary school mathematics instruction and state curriculum in the context of diverse student backgrounds.

TCH-ED 5417 Science Methods In The Elementary School Credits: 3
The course prepares pre-service teachers to teach science from a constructivist, inquiry-oriented perspective.

TCH-ED 5418 Social Studies Methods in the Elementary and Middle Schools Credits: 3
A critical analysis of current practices, teaching methods, materials, and the relationship of the social sciences to social studies. Emphasis is on understanding cultural diversity and cultural influences on learning. The planning, implementation and evaluation of an interdisciplinary social studies unit of instruction, focusing on competencies and skills needed for the 21st Century.

TCH-ED 5419 Student Teaching in Elementary School Credits: 3-12
Observation and student teaching under supervision in an elementary school. Elementary majors must enroll in 12.0 credit hours. Music education majors enroll in 3.0 or 7.0 hours; art education and foreign language education majors enroll in 7.0 hours.

TCH-ED 5422 Practicum I - Middle and High School Credit: 1
The purpose of this field experience is to apply theoretical and practical knowledge gained in concurrent courses.

**Co-requisites:** TCH-ED 312; TCH-ED 430; TCH-ED 420.
TCH-ED 5423 Practicum II - Middle and High School Credit: 1
The purpose of this field experience is to apply theoretical and practical knowledge gained in concurrent courses.
Prerequisites: TCH-ED 422.


TCH-ED 5424 Practicum III - Middle and High School Credit: 1
The purpose of this field experience is to apply theoretical and practical knowledge gained in concurrent courses.
Co-requisites: TCH-ED 315, TCH-ED 463, TCH-ED 438, Content specific methods courses.

TCH-ED 5427 Reading in the Secondary School Credits: 3
An examination of the reading process and study of methods and materials used by the secondary school classroom teacher in assessing student reading ability, determining the readability of content area materials and teaching students of all reading levels how to comprehend their textbooks and other printed instructional materials in various content area subjects.

TCH-ED 5430 Analyzing Learning Environments in Urban Contexts Credits: 3
This course serves as the major vehicle for articulating a programmatic construction of classroom management as establishing productive learning environments, facilitating social interaction, and planning relevant and engaging learning experiences based upon deep knowledge of individual students’ contexts and cultures.

TCH-ED 5431 Summer Community Experience Credits: 3
This field-based course provides an in-depth examination into both the evolution of urban communities and dynamics of community building in inner cities, with special emphasis on Kansas City, Missouri. In addition, theories of educational psychology as well as child and adolescent behavior will be infused to assist participants in developing age appropriate mentoring/teaching strategies and activities. Students in the course are engaged with the community through field trips, simulations, course events, and community service.
Prerequisites: Admission into Elementary Education program or Institute for Urban Education.

TCH-ED 5432 Special Methods of Teaching English in Middle and High Schools Credits: 3
This course stresses the skills, knowledge, and dispositions pertinent to teaching English Language Arts in middle schools and high schools.

TCH-ED 5433 Special Methods of Teaching Mathematics in Middle and High Schools Credits: 3
This course stresses the skills, knowledge, and dispositions pertinent to teaching mathematics in middle schools and high schools.

TCH-ED 5434 Seminar in Social Science Curriculum Credits: 3
This seminar course is designed to strengthen teacher candidates’ content knowledge for designing and enacting transformative social science curriculum and pedagogy. Students will actively examine key content, concepts, themes, issues, multiple perspectives, and enduring questions embedded in the social science disciplines such as history, geography, economics, anthropology, sociology, political science and psychology and cultural and social contexts to enhance their knowledge, skills, and confidence for designing and enacting a transformative social science curriculum for diverse middle and high school students’ development of civic competence.

TCH-ED 5435 Special Methods of Teaching Science in Middle and High Schools Credits: 3
Provides an opportunity for future science teachers to refine their skills as science educators and at the same time to reflect upon the ways and whys of teaching science.

TCH-ED 5436 Special Methods of Teaching Social Science in Middle and High Schools Credits: 3
This course will assist teacher candidates in developing the knowledge, skills, and dispositions needed to design and enact powerful transformative social studies curricular experiences, to foster middle and secondary school students’ abilities to make informed, reasoned decisions and actions for the public good. Students will be introduced to powerful teaching practices, issues, and resources in secondary school social science.

TCH-ED 5437 Student Teaching in Secondary School Credits: 3-9
Culminating experience in a secondary school (grades 9-12). Enrollment hours vary for teacher candidates in Music, Art, and Foreign Languages. Secondary majors in English, Mathematics, Science, and Social Science enroll for 9 semester credit hours.
Prerequisites: TCH-ED 5424.
Co-Requsite: Seminar.

TCH-ED 5438 Culturally Responsive Strategies for Teaching Diverse Learners Credits: 3
This course is designed to move students from cultural awareness to the application of culturally responsive practice. Specifically, this course will heighten students’ understanding of cultural characteristics and their relationships to teaching and learning. Students will learn culturally responsive strategies and their enactment in instruction for diverse learners.

TCH-ED 5440 Introduction To Early Childhood Education Credits: 3
Introduction to the field of early childhood care and education, birth to age 8. Designed to familiarize future practitioners with the unique characteristics of early childhood education and its practice.

TCH-ED 5441 Literacy Development I Credits: 3
An introduction to how language is acquired and how to facilitate oral language expression in early childhood classrooms.
TCH-ED 5442 Observation, Assessment & Screening in Early Childhood Classrooms Credits: 3
This course is designed to identify developmentally appropriate ways to measure and evaluate child growth and development.

TCH-ED 5444 Mathematics In Early Childhood and Elementary Schools Credits: 3
The course prepares teachers who can create a learning environment in which mathematical concepts are drawn from and modeled within the child’s active investigation of his or her own surroundings and views of the world. The emphasis is upon mathematics as a sense-making tool through which observation, action, classification, ordering, seeking patterns and common features, and testing of ideas come together to organize experiences and solve problems in the immediate environment. Stress is placed on methods and materials to make mathematics learning active and hands-on. A variety of materials, physical models, and tools are studied in terms of the way they can be used to help children explore, develop and test ideas, construct meaning, and communicate ideas.

TCH-ED 5445 Science In Early Childhood and Elementary Schools Credits: 3
Focus on ways of involving young children in science activities and experiences designed to promote curiosity, investigation and self-awareness as they explore their world.

TCH-ED 5447 Social Studies In Early Childhood and Elementary Schools Credits: 3
This course is designed to help students understand basic social studies concepts and pedagogy for young learners.

TCH-ED 5448 Literacy Development II Credits: 3
This course is designed to introduce the student to the different theories on literacy development. Students will examine different approaches but focus on a developmental perspective to literacy development.

TCH-ED 5449 Literacy Development III Credits: 3
This course is designed to help students identify effective and developmentally appropriate practices, strategies and experiences that foster literacy development.

TCH-ED 5450 Integrating The Curriculum In Early Childhood Education Credits: 3-4
A culminating curriculum course for early childhood students. The overall goal is to help students become more aware, skilled and informed about developmentally and educationally appropriate practice and curriculum for children during early childhood. Its focus is on constructing an integrated curriculum. A field-based experience is included.

TCH-ED 5451 Child Guidance Within The Classroom Credits: 3
Designed to help students examine and evaluate guidance techniques and teaching strategies used in classrooms for young children. Preventive measures in classroom management will be stressed.

Co-requisites: TCH-ED 481.

TCH-ED 5452 Family and Program Relationships in Early Childhood Education Credits: 4
Provides insight into the challenge of parenting, knowledge about the development and implementation of parent education and support programs, and the significance of school-family relationships. In addition, this course seeks to facilitate students’ understanding of and sensitivity to parents’ perspectives regarding the care and education of their young children.

Co-requisites: TCH-ED 453.

TCH-ED 5453 Learning From Parents Credits: 2
Designed to provide students with direct interactions with parents whose children are participating in early childhood programs, birth to age 8. Emphasis is placed upon students’ understanding of, and sensitivity to, parents’ perspectives regarding the care and education of their young children and recognition of parents as significant informants about their children.

Co-requisites: TCH-ED 452.

TCH-ED 5454 Human Relations In The Early Childhood Classroom Credits: 3
Students will analyze the connections between an effective helping relationship and effective teaching in the early childhood classroom. Effective interpersonal communication skills will be identified and practiced. The development of self-concept will be discussed.

TCH-ED 5455 Student Teaching In Preschool Credits: 6-10
Observation and student teaching under supervision in a preschool setting.

TCH-ED 5456 Student Teaching In Elementary, K Through 3 Credits: 6-12
Observation and student teaching under supervision in an elementary school, grades K through 3.

TCH-ED 5457 Infant And Toddler Care And Education Credits: 3
In this course, students will investigate infant and toddler care and education theories and practices. Students will learn about appropriate curriculum and teaching methods, visit infant and toddler programs, learn about state regulations and national standards for quality, and complete an environment rating scale.

TCH-ED 5458 Practicum For Learning About Infants And Toddlers Credit: 1
The purpose of this course is to learn about child care and education practices in various centers. We will discuss how practices are influenced or constrained by human biology and developmental stages, as they are by ecological and environment pressures such as mothers’ work roles. The central themes of the course can be summarized by the phrases purposeful care practices and the optimal practices for infants and toddlers.
TCH-ED 5459 Early Childhood Program Management and Advocacy Credits: 2
Students will begin to explore basic early childhood program components. Different types of advocacy will be presented, discussed, and implemented. **Prerequisites:** TCH-ED 440.

TCH-ED 5460 Middle School Curriculum Credits: 2
This course offers the pre-service teachers an overview of middle school goals, basic principles, and organizations. The course explores interdisciplinary teaming, flexible scheduling, exploratory and advisory programs, and other aspects of the organization within the context of middle school goals and practices.

TCH-ED 5461 Student Teaching In Middle School Credits: 6-9
Culminating field experience in a middle school setting. Student teachers engage in an all-day, full semester placement in a middle school classroom. Middle School Education (English, Mathematics, Science, Social Science) majors must enroll in 9 credit hours. Hours for other programs using this field experience vary. Teacher candidates should seek advisor approval. **Prerequisites:** TCH-ED 5424.

**Co-Requisite:** Seminar.

TCH-ED 5462 Middle School Philosophy and Organization Credits: 3
This course offers teacher candidates an overview of middle school goals, basic principles, and organizations. Topics include interdisciplinary teaming, flexible scheduling, exploratory and advisory programs, and other aspects of the organization within the context of middle school goals and practices.

TCH-ED 5463 Literacy Intervention across the Disciplines Credits: 3
Examination of research, policy, and effective practice of literacy intervention in middle and secondary disciplinary classrooms (i.e. English/language arts, mathematics, science, and social studies). Topics will include recognition of reading and writing difficulties, response-to-intervention (RTI), scaffolding instruction for grade level reading comprehension, metacognition, and culturally responsive literacy instruction.

TCH-ED 5464 Math Methods for Urban Teachers Credits: 3
Mathematics-specific pedagogy for urban teachers. Methods, techniques, tools and materials for the effective teaching of mathematics. Emphasis on problem solving and reasoning skills in applying mathematics and on teaching in the context of diverse student backgrounds. Portions of this course will occur in urban school classrooms. Students will apply learning to urban classrooms.

TCH-ED 5465 Urban Education VI: Teaching Diverse Students Credit: 1
This interactive course will investigate and examine the principles of teaching diverse students and factors influencing effectiveness of instruction, including empowering African American males, teaching students from diverse populations and working with students with special needs. Some of the class sessions will be taught electronically and work will be submitted electronically. **Prerequisites:** Admission into the Institute of Urban Education.

TCH-ED 5466 Field Experience: Diverse Learners Credit: 1
Students will spend a minimum of 90 hours in an urban school classroom. Students will have the opportunity to apply learning and lessons designed in the semester's pedagogical courses, particularly Best Practices for Teaching Math, Science, and strategies for working with diverse learners. Students will work with their seminar leader, having the opportunity to be observed and conference about their teaching. **Prerequisites:** Admission into the Institute for Urban Education.

**Co-requisites:** TCH-ED 465.

TCH-ED 5470 Philosophy and History of Science and Technology Credits: 3
This course uses an historical survey to introduce the main philosophical interpretations of the nature and structure of both science and technology. Core concepts such as prediction, explanation, progress, truth, and utility will be examined in light of various philosophical perspectives. Following this, case study methodology will be used to examine interactions among science, technology, and society. Although the major focus will be upon modern Western culture, some attention will be paid to earlier and non-Western cultures. Case studies to be examined include: Perception and Estimation, nuclear power and pesticides; the impact of high technology upon medicine; and the estimated cost/benefit of computer-mediated communications, for example, the Internet.

TCH-ED 5475 Working with Families and Communities Credits: 3
This course provides an in-depth examination of research and theory relative to children, family, and community which have implications for and application to learning and instruction. Emphasis will be placed on the exploration and critical examination of and insights into the challenge or parenting, knowledge about the development and support programs, and the significance of school-family relationships. In addition, this course seeks to facilitate students' understanding of and sensitivity to families' perspectives regarding the care and education of their children and adolescents. The course is for students in the elementary education program and Institute for Urban Education. **Prerequisites:** Admission into Teacher Education or IUE.

TCH-ED 5480 Practicum I Early Childhood Credit: 1
Early Childhood students will participate in observation, assessment, and screening activities as they explore the complex nature of primary school settings. Students will be expected to spend 60 hours at classroom sites during the semester. **Co-requisites:** TCH-ED 442.
TCH-ED 5481 Practicum II Early Childhood Credit: 1
Early Childhood students will participate in classroom management and guidance practices as they explore the complex nature of pre-kindergarten settings. Students will be expected to spend 60 hours at classroom sites during the semester.
Prerequisites: TCH-ED 480, admission into teacher education program.


TCH-ED 5482 Seminar in Teaching and Evaluating Writing Credits: 3
This course is designed to provide future teachers with a framework for success in the teaching of writing within the English Language Arts curriculum. The goal is to help students turn sound theory provided by the National Writing Project, the National Council of Teachers of English, and other experts in the field of rhetoric and composition into effective practice in the classroom.

TCH-ED 5483 Early Childhood Reading I: Introduction to Literacy and Reading Education Credits: 4
This course introduces concepts about literacy processes: i.e., social, cultural, cognitive and linguistic foundations of reading and writing processes. The major focus of the course is on learning components of comprehensive reading curriculum and a range of instructional approaches and methods appropriate for early childhood learners at different stages of literacy development.

TCH-ED 5484 Early Childhood Reading II: Assessing and Teaching Diverse Learners Credits: 4
This course introduces focuses on understanding the major components of reading processes (Phonemic awareness, word identification and phonics, vocabulary and background knowledge, fluency, comprehension strategies, and motivation) and how they are integrated in fluent reading for individual students at different stages of literacy development. The major projects for the course involves assessing and teaching an individual student over the course of the semester. Teacher candidates should also assess and teach in small groups of readers.
Prerequisites: Admission into the teacher education program.

TCH-ED 5485 Language Arts in the Early Childhood Classroom Credits: 3
This course provides instruction in planning, implementing, and assessing early childhood (birth through third-grade) language arts activities. Critical analysis in classroom settings is emphasized. Other issues discussed include: literature-based instruction, multicultural perspectives, special needs students and professional behaviors.

TCH-ED 5492 Language Arts Capstone Credits: 2
Designed for students in their last professional semester of the TE program, and are in a full-time student teaching placement. The course will serve as a culminating experience of the major concepts from the previous three semesters. Topics covered include school law, classroom management, working with special needs students, building critical thinking activities into the curriculum, planning and implementing authentic assessments, and examining the obligations, challenges, and realities of the teaching profession.
Prerequisites: TCH-ED 432.

Co-requisites: student teaching.

TCH-ED 5493 Seminar - Mathematics Credits: 3
Supports the culminating mathematics student teaching experience and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessments for individual learners. Peer and mentor collaboration in the analytical process are fundamental to the course objectives.
Prerequisites: TCH-ED 5433.

Co-requisites: Student Teaching.

TCH-ED 5494 Seminar - English/Language Arts Credits: 3
Designed for students in their last professional semester of the TE program, and are in a full-time student teaching placement. The course will serve as a culminating experience of the major concepts from the previous three semesters. Topics covered include: school law, classroom management, working with special needs students, building critical thinking activities into the curriculum, planning and implementing authentic assessments, and examining the obligations, challenges, and realities of the teaching profession. Supports the culminating English/Language Arts student teaching experiences, and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences, for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessment for individual learners. Peer and mentor collaboration in the analytical process are fundamental to the course objectives.
Prerequisites: TCH-ED 432.

Co-requisites: Student teaching.
TCH-ED 5495 Seminar - Science Credits: 3
Supports the culminating Science Education student teaching experience and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of teaching strategies they apply in their student teaching experiences, their effectiveness in facilitating learning in classrooms, and adaption of lessons and assessment for individual learners. Peer and mentor collaboration in the analytical process are fundamental to the course objectives.
Prerequisites: TCH-ED 435.
Co-requisites: Student teaching.

TCH-ED 5496 Seminar — Social Science Credits: 3
Supports the culminating Social Science Education student teaching experience and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences, for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessment for individual learners. Peer and mentor collaboration in the analytical process are fundamental to the course objectives.
Prerequisites: TCH-ED 436.
Co-requisites: Student teaching.

TCH-ED 5497 Teaching Internship Credits: 3-8
Teacher candidates will work 3 to 5 days at the school site in which the candidate will complete the year-long teaching internship.
Prerequisites: TCH-ED 398.

TCH-ED 5498 Urban Education Seminar VII Credit: 1
This seminar meets weekly for 2 hours and is led by a clinical professor who serves as a mentor for the students throughout their program. Students will work closely with mentor teachers in the application and integration of social justice and the elementary school curriculum. A critical analysis of current practices, teaching methods, materials and how social justice manifests in curriculum and instruction. Emphasis is on understanding cultural diversity and cultural influences on learning. Concepts of a classroom community, parental relations and democratic classroom processes will be addressed. Students will have opportunities to apply their learning to urban classrooms.
Prerequisites: Admission into the Institute for Urban Education.

TCH-ED 5499 Capstone Credits: 2
This seminar is designed to complement the student teaching experience through the discussion and analysis of school-based issues. It is intended to help further develop a reflective, critical and analytical approach to pedagogical decision making through supportive collaboration.
About the School of Education

Education Building (http://www.umkc.edu/virtualtour/education-building.asp), Room 347
615 E. 52nd Street
(816) 235-2260 Dean’s Office
(816) 235-2234 Student Services
Fax: (816) 235-5270
education@umkc.edu
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Assistant Dean, Outreach and Academic Engagement:
Micheal Strohschein

Division of Counseling and Educational Psychology Chair:
Chris Brown

Division of Teacher Education and Curriculum Studies co-Chairs:
Rita Barger
Jennifer Waddell

Division of Educational Leadership, Policy and Foundations Chair:
Loyce Caruthers
History and Mission

History
The School of Education, organized officially as a separate academic division in 1954, was the result of the University of Kansas City’s involvement in professional education since 1940. At that early date the University was offering an M.A. in education, heavily liberal-arts laden, with most classes conducted in the summer and evenings. An undergraduate major in elementary education was established in 1952, and the first University of Kansas City doctoral program, the Ph.D. in education, was inaugurated with the organizing of the school in 1954. Since 1954, the school has grown to include three disciplinary divisions with more than 20 programs, offering bachelor of arts, master of arts, graduate certificates, educational specialist, doctor of philosophy, doctor of education and interdisciplinary degree programs. Several degree and certification programs are offered in cooperation with the School of Biological Sciences, the Conservatory of Music and Dance, and the College of Arts and Sciences.

Mission & Values
The mission of the School of Education is to recruit, prepare, and support outstanding teachers, mental health professionals, and administrators who will create lifelong opportunities through education for America’s diverse urban communities. This mission is centered on six key values which embody the knowledge, skills and dispositions expected of our candidates across the School of Education. The goals defined by individual programs are more specific subsets of these broader values:

1. Academic excellence
2. Strategic innovation
3. Inquiry leading to reflective decision-making and problem-solving
4. Skilled and knowledgeable professionals working collaboratively
5. Democracy, diversity, and social justice
6. Creating caring and safe environments

Vision
To be a leading urban-serving school of education in the nation.

Priority Goals
1. Foster and model a collaborative environment
2. Ensure academic excellence
3. Increase research focused on urban education
4. Provide leadership for urban schools and healthy communities
5. Ensure infrastructure for achieving strategic plan
6. Optimize and increase resources
Curricula Objectives

The UMKC School of Education has been committed to professional education in the Kansas City metropolitan area for 60 years. Throughout the School’s history, faculty have an established record of involvement in educational reform - exemplified through innovative teaching methods, action-based research, and community-focused programs preparing teachers, administrators, and mental health professionals for the challenges in urban communities today and for the future.

The primary objectives of the School of Education, which stem from our conceptual framework, mission, and values, are:

• To provide sound theoretical foundations and practical skills at the undergraduate and graduate levels required for competent performance by teachers, administrators and special-services personnel in schools, colleges and universities in a culturally pluralistic society.
• To provide graduate education and research skills which are supportive of and lead to advanced levels of scholarly achievement.
• To provide a diversity of specialized education and training programs for persons engaged in educational roles in non-school settings such as governmental agencies, social service agencies, mental and physical health care institutions, business and industrial organizations and private practice.
• To provide leadership, consultation and other support services for quality improvement in planning and conducting educational programs in schools, higher education institutions, and community agencies and organizations.
• To provide professional development opportunities for educators at all levels through specially designed programs in research, continuing education instruction, in-service programs and workshops.
• To impact the student learning in classrooms and communities throughout Missouri and the Kansas City metropolitan region in positive and meaningful ways.
• To make original contributions to the broad field of professional education through basic and applied research by both faculty and students with specific emphasis on issues of urban education.
Accreditation

The teacher education programs of the School of Education are accredited at the bachelor’s, master’s, educational specialist and doctoral levels by the National Council for Accreditation of Teacher Education for the preparation of elementary teachers, secondary teachers and other school personnel. Continuing accreditation was granted in Spring 2012.

The School of Education is a member of the American Association of Colleges of Teacher Education.

The Ph.D. program in Counseling Psychology is accredited by the American Psychological Association.

The Master’s program in Counseling and Guidance is accredited by the Master’s in Psychology and Counseling Accreditation Council.

Programs for the preparation of teachers and other school personnel are approved by the Missouri Department of Elementary and Secondary Education.
Divisions in the School of Education

Division of Counseling and Educational Psychology
Chair: Dr. Chris Brown Contact Information (http://education.umkc.edu/our-school/people/cep-directory/cbrown)

Division of Teacher Education and Curriculum Studies (p. 1067)
co-Chair: Dr. Rita Barger Contact Information (http://education.umkc.edu/our-school/people/cil-directory/rbarger)
c-Chair: Dr. Jennifer Waddell Contact Information (http://education.umkc.edu/our-school/people/cil-directory/jwaddell)

Division of Educational Leadership, Policy and Foundations (p. 1069)
Chair: Dr. Loyce Caruthers Contact Information (http://education.umkc.edu/our-school/people/educational-leadership-policy-foundations-directory/lcaruthers)

Division of Continuing and Professional Education
Assistant Dean: Dr. Micheal Strohschein
Division of Counseling and Educational Psychology

Chair:
Chris Brown, Ph.D. Contact Information (https://education.umkc.edu/our-school/people/cep-directory/cbrown)
(816) 235-2492

Areas of Study and Degrees
- M.A. Counseling and Guidance; Emphasis Areas: School Counseling, Mental Health Counseling, and Couples and Family Counseling (p. 1148)
- Ed.S. Counseling and Guidance; Emphasis Areas: School Counseling, General Mental Health (p. 1145)
- Ph.D. Counseling Psychology (p. 1142)

Faculty Scholastic Activity and Research Interests
The faculty in Counseling and Educational Psychology embodies a diverse gathering of expertise and interest. Faculty members conduct research in a wide variety of counseling and education-related areas, direct grant programs, and counsel clients in therapy. Individual and cultural diversity is paramount to the division, and faculty members attend to diversity issues in both coursework and research. Faculty members are invested in advising students in research, evaluation and counseling endeavors in order to help them achieve their educational goals.
Division of Teacher Education and Curriculum Studies

Co-Chairs:
Rita Barger, Ph.D. Contact Information (https://education.umkc.edu/our-school/people/cil-directory/rbarger)
Jennifer Waddell, Ph.D. Contact Information (https://education.umkc.edu/our-school/people/cil-directory/jwaddell)

(816) 235-2245

Areas of Study and Degrees

- B.A. Early Childhood Education (p. 1081)
- B.A. Elementary Education (p. 1085)
- B.A. Middle School Education (p. 1089) (English, Mathematics, Science, Social Science)
- B.A. Secondary Education; Certification areas: Art, English, Foreign Language (French, German, Spanish), Mathematics, Sciences (Biology, Chemistry, Earth Science, Physics) and Social Science (p. 1100)

Undergraduate students may also elect to pursue a dual degree between Education and Arts and Sciences. Secondary education majors may earn a B.A. or B.S. degree in a major in the College of Arts and Sciences. Elementary and Early Childhood Education majors may earn a bachelor of liberal arts degree in the College of Arts and Sciences. Contact the advising office of the College of Arts and Sciences for more details.

- Graduate Certificate in Culturally Responsive Pedagogy (http://catalog.umkc.edu/colleges-schools/education/graduate-certificate-culturally-responsive-pedagogy)
- M.A. Curriculum and Instruction; Emphasis Areas: Early Childhood, Elementary, General, Multicultural Education, Subject Matter Specialty and Teaching English (p. 1157) as a Second Language
- M.A. Language and Literacy (p. 1161)
- M.A. Special Education (Mild/Moderate Cross-Categorical Disabilities) (p. 1162)
- Ed.S. Curriculum and Instruction (p. 1152)
- Ed.S. Language and Literacy (p. 1154)
- Ph.D. Interdisciplinary (Curriculum and Instruction and other disciplines) (p. 1256)

Student Academic Assessment Policy

The Council for the Accreditation of Educator Preparation (CAEP), the accreditation body for the School of Education, has standards which require that candidates demonstrate the knowledge, skills and professional dispositions necessary for educators and educational leaders. Assessments of knowledge, skills and professional dispositions occur regularly throughout programs.

At any point during the student’s matriculation through the program, the faculty retains the right to review any student behavior that may negatively affect the welfare of others, particularly K-12 students who are served by teacher education. Such a review may result in the student being encouraged to receive additional support and assistance or in not being permitted to continue in the program. The following are offered as examples of such behaviors:

1. Failure to maintain academic standards (e.g., 3.0 GPA).
2. Academic dishonesty (e.g., cheating, plagiarism).
3. Unethical or unprofessional behavior which could include but is not limited to, dishonesty; lack of collegiality, cooperation, or responsibility; inability to handle stress; abrasiveness; or lack of timeliness.
4. Behaviors that obstruct the leadership process and/or threaten the welfare of the student or others (e.g., verbal abuse, physical abuse, active substance abuse).
5. Failure to comply with established University or Program timetables, requirements, and policies (e.g., failure to meet time limits for completion of degree program).
6. Violation of federal, state, or local laws on UMKC premises or at UMKC sponsored or supervised activities.
7. Consideration may be given to other circumstances as they arise.

Procedures for Student Evaluation

To protect student interests as well as the rights of faculty to uphold the academic and professional standards of the academic program, the following steps may be taken as part of the academic review process.

1. If a concern about student behavior develops within the context of a course or at a field experience, the course instructor and/or field supervisor documents concerns and notifies the student’s faculty advisor. The instructor meets with the student (and the faculty advisor if needed) to outline deficiencies and establish a remedial course of action (if appropriate). Chronological time frames may be established to evaluate performance.
Others (i.e., program faculty or professionals and agents outside the university) who have university-related concerns about a student outside of the context of a course may communicate their concerns directly to the appropriate division chair or the Dean's Office. (Such discussions are governed by the Family Educational Rights and Privacy Act.)

2. If the instructor(s) has made a reasonable determination with adequate documentation that a pattern of severe problems exists, he or she recommends additional action be taken. Then the instructor will communicate the concerns, actions taken and their outcomes to the faculty advisor and Division Chair and request a hearing panel be assembled to review the student's status.

3. The student will be informed in writing by the Division Chair of the concerns and a hearing will be set by the Dean’s Office with the program faculty (at least three faculty, in addition to the faculty member filing the complaint, must be present) and the student. An Associate Dean will present the scenario(s) and the student will have a right to respond to the allegations. The hearing panel may ask questions of both parties. The student may bring another person of support to the hearing but this individual may not speak on behalf of the student. The student will receive copies of all written documentation related to the allegations in advance of the hearing. This hearing will determine the student's status in the program.

4. The program faculty will notify the student in writing of the outcome of the hearing and make a recommendation to the Dean.

5. The student has a right to appeal the decision of the program faculty and must notify the Dean in writing within ten business days of the faculty decision. Another hearing will take place between the student and the Dean or his/her designee. The Dean reviews the recommendation and conveys a decision to the respective faculty group and the student.

6. Students who have been declared ineligible due to unsatisfactory progress or performance may appeal such decisions to the Dean of the School of Graduate Studies, as designee of the Chancellor. This appeal must be made in writing within 14 consecutive days after receipt of the registrar's notification to the student of the decision. The Dean of the School of Graduate Studies will review the full record of the case and the appeal document.

7. The decision of the Graduate Dean, as the Chancellor's designated representative in such cases, is final and will be communicated in writing to:
   a. The student
   b. The graduate faculty review group(s)
   c. The academic dean
   d. The registrar

Faculty Scholastic Activity and Research Interests

Faculty in Curriculum and Instruction have a wide variety of experiences and interests. Several faculty members conduct research on achievement and pedagogy for at-risk students, direct grant programs and work intensely and collaboratively in school settings. Faculty emphasize the importance of technology in the classroom and incorporate this content into their work. They are active in national and regional professional associations, in which many hold offices. Faculty in Curriculum and Instruction strive to facilitate high levels of professional development and leadership skills and help their students achieve their educational goals.
Division of Educational Leadership, Policy and Foundations

Chair:
Loyce Caruthers, Ph.D. Contact Information (https://education.umkc.edu/our-school/people/educational-leadership-policy-foundations-directory/lcaruthers) (816) 235-1044

Areas of Study and Degrees

• M.A. Educational Administration; Emphasis Areas: PK-12 Administration (Building-Level), Higher Education Administration (p. 1176)
• Ed.S. Educational Administration; Emphasis Areas: PK-12 Administration (Building-Level, Advanced Principal, District-Level) (p. 1170)
• Ed.D. Educational Administration; Emphasis Areas: PK-12 Administration; Higher Education Administration (p. 1170)
• Ph.D. Interdisciplinary (Educational Leadership, Policy and Foundations with other disciplines) (See School of Graduate Studies)
• Graduate Certificate in Community College Leadership (http://catalog.umkc.edu/colleges-schools/education/graduate-certificate-community-college-leadership)
• Graduate Certificate in Educational Foundations (http://catalog.umkc.edu/colleges-schools/education/graduate-certificate-educational-foundations)

Student Learning Outcomes (K-12)
The mission of the UMKC division of Educational Leadership, Policy and Foundations is to prepare and professionally advance educational leaders who are in the fields of Pre-k -12 and higher education. Faculty members are committed to students to ensure that they become knowledgeable, skilled, and highly effective transformational educational leaders in their schools/educational institutions communities.

Program Goals for Pre-k-12 Educational Leadership

1. Program Goal 1 - VISION: Educational leaders have the knowledge, skills, and dispositions required to promote the success of all students by facilitating the development, articulation, implementation, and stewardship of a shared vision of learning, strong organizational mission, and high expectations for every student.
   Applicable Standards (ELCC=NCATE Accreditation; ELPS=SLLA Exam; MoSTEP=State Accreditation)
   • MoSTEP Standard 1.3.1
     • A school administrator is an educational leader who promotes the success of all students by facilitating the development, articulation, implementation, and stewardship of a vision of learning that is shared and supported by the school community.
   • ELPS Performance Expectation 1, Elements A, B, C
     • Education leaders ensure the achievement of all students by guiding the development and implementation of a shared vision of learning, strong organizational mission, and high expectations for every student.
   • ELCC Standard 1, Elements 1.1, 1.2, 1.3, 1.4, 1.5
     • Candidates who complete the program are educational leaders who have the knowledge and ability to promote the success of all students by facilitating the development, articulation, implementation, and stewardship of a school or district vision of learning supported by the school community.

2. Program Goal 2 - SCHOOL CULTURE & INSTRUCTIONAL LEADERSHIP: Educational leaders have the knowledge, skills, and dispositions required to promote the success of all students by supporting a positive and collaborative school culture committed to applying high-quality research and data-based practices to continuously improve student learning and adult professional development programs, providing a rigorous curriculum aligned with content standards, and guiding a comprehensive evaluation and assessment program that includes the role of technology in promoting student learning and professional growth.
   Applicable Standards (ELCC=NCATE Accreditation; ELPS=SLLA Exam; MoSTEP=State Accreditation)
   • MoSTEP Standard 1.3.2
     • A school administrator is an educational leader who promotes the success of all students by advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth.
   • ELPS Performance Expectation 2, Elements A, B, C
     • Education leaders ensure achievement and success of all students by monitoring and continuously improving teaching and learning.
   • ELCC Standard 2, Elements 2.1, 2.2, 2.3, 2.4
     • Candidates who complete the program are educational leaders who have the knowledge and ability to promote the success of all students by promoting a positive school culture, providing an effective instructional program, applying best practice to student learning, and designing comprehensive professional growth plans for staff.

3. Program Goal 3 - ORGANIZATION & MANAGEMENT: Educational leaders have the knowledge, skills, and dispositions required to promote the success of all students by managing the organizational and operational systems, and facilitating the equitable allocation of fiscal, human, and other resources in a way that promotes a safe, efficient, and effective learning environment.
   Applicable Standards (ELCC=NCATE Accreditation; ELPS=SLLA Exam; MoSTEP=State Accreditation)
   • MoSTEP Standard 1.3.3
• A school administrator is an educational leader who promotes the success of all students by ensuring management of the organization, operations, and resources for a safe, efficient, and effective learning environment.

• ELPS Performance Expectation 3, Elements A, B, C
  • Education leaders ensure the success of all students by managing organizational systems and resources for a safe, high-performing learning environment.

• ELCC Standard 3, Elements 3.1, 3.2, 3.3
  • Candidates who complete the program are educational leaders who have the knowledge and ability to promote the success of all students by managing the organization, operations, and resources in a way that promotes a safe, efficient, and effective learning environment.

4. Program Goal 4 - PARENTAL & COMMUNITY INVOLVEMENT: Educational leaders have the knowledge, skills, and dispositions required to promote the success of all students by communicating and collaborating with families and other community members, demonstrating cultural competence in sharing responsibilities with diverse members of the school community, and developing mutually beneficial relationships with community organizations to expand available resources to improve teaching and learning.

Applicable Standards (ELCC=NCATE Accreditation; ELPS=SLLA Exam; MoSTEP=State Accreditation)

• MoSTEP Standard 1.3.4
  • A school administrator is an educational leader who promotes the success of all students by collaborating with families and community members, responding to diverse community interests and needs, and mobilizing community resources.

• ELPS Performance Expectation 4, Elements A, B, C
  • Education leaders ensure the success of all students by collaborating with families and stakeholders who represent diverse community interests and needs and mobilizing community resources that improve teaching and learning.

• ELCC Standard 4, Elements 4.1, 4.2, 4.3
  • Candidates who complete the program are educational leaders who have the knowledge and ability to promote the success of all students by collaborating with families and other community members, responding to diverse community interests and needs, and mobilizing community resources.

5. Program Goal 5 - INTEGRITY & ETHICAL LEADERSHIP: Educational leaders have the knowledge, skills, and dispositions required to promote the success of all students by modeling high expectations and examining assumptions and beliefs that affect student learning, protecting confidentiality of students, staff, and families, continuously improving knowledge and skills, and acting with integrity, fairly, and in an ethical manner.

Applicable Standards (ELCC=NCATE Accreditation; ELPS=SLLA Exam; MoSTEP=State Accreditation)

• MoSTEP Standard 1.3.5
  • A school administrator is an educational leader who promotes the success of all students by acting with integrity, fairness, and in an ethical manner.

• ELPS Performance Expectation 5, Elements A, B, C
  • Education leaders ensure the success of all students by being ethical and acting with integrity.

• ELCC Standard 5, Elements 5.1, 5.2, 5.3
  • Candidates who complete the program are educational leaders who have the knowledge and ability to promote the success of all students by acting with integrity, fairly, and in an ethical manner.

6. Program Goal 6 - EDUCATIONAL CONTEXT: Educational leaders have the knowledge, skills, and dispositions required to promote the success of all students by understanding, responding to, and influencing the larger political, social, economic, legal, and cultural contexts affecting education to advocate for students’ and teachers’ needs.

Applicable Standards (ELCC=NCATE Accreditation; ELPS=SLLA Exam; MoSTEP=State Accreditation)

• MoSTEP Standard 1.3.6
  • A school administrator is an educational leader who promotes the success of all students by understanding, responding to, and influencing the larger political, social, economic, legal, and cultural context.

• ELPS Performance Expectation 6, Elements A, B, C
  • Education leaders ensure the success of all students by influencing interrelated systems of political, social, economic, legal, and cultural contexts affecting education to advocate for their teachers’ and students’ needs.

• ELCC Standard 6, Elements 6.1, 6.2, 6.3
  • Candidates who complete the program are educational leaders who have the knowledge and ability to promote the success of all students by responding to, and influencing the larger political, social, economic, legal, and cultural context.

7. Program Goal 7 - INTERNSHIP: The internship provides significant opportunities for candidates to synthesize and apply their knowledge and understanding, to practice and develop the skills, and to refine and clarify the dispositions identified in Program Goals 1-6 through substantial, sustained, standards-based work in real settings, planned and guided cooperatively by the institution and school district personnel for graduate credit.

Applicable Standards (ELCC=NCATE Accreditation; ELPS=SLLA Exam; MoSTEP=State Accreditation)

• ELCC Standard 7, Elements 7.1, 7.2, 7.3, 7.4, 7.5, 7.6
  • Internship. The internship provides significant opportunities for candidates to synthesize and apply the knowledge and practice and develop the skills identified in Standards 1-6 through substantial, sustained, standards-based work in real settings, planned and guided cooperatively by the institution and school district personnel for graduate credit.
Student Learning Outcomes for Higher Education Administration

Upon completion of the Higher Education Administration program, the student will:

- Have a thorough grounding of higher education/student affairs as a field of study
- Understand organizational, management, leadership and supervision theories and issues
- Understand developmental theories as they relate to college students
- Understand professional requirements and ethics of the field
- Develop self-awareness
- Develop multicultural competencies
- Improve communication skill
- Develop skills to use technology to enhance the educational experience
- Develop the ability to analyze and interpret current research in the field
- Increase skills to apply research
- Improve ability to integrate and synthesize information

Student Academic Assessment Policy

The Council for the Accreditation of Educator Preparation (CAEP), the accreditation body for the School of Education, has standards which require that candidates demonstrate the knowledge, skills and professional dispositions necessary for educators and educational leaders. The academic assessment of a student in the School of Education is a significant event for both the student and the faculty. It represents an evaluation by the faculty of student competency in academic skills and/or in other critical areas of professional conduct.

At any point during the student's matriculation through the program, the faculty retains the right to review any student behavior that may affect the welfare of the student or others. Such a review may result in the student being encouraged to receive additional support and assistance or possibly not being permitted to continue in the program. The following are offered as examples of behaviors that are the basis for evaluation of student progress:

1. Failure to maintain academic standards (e.g., 3.0 GPA).
2. Academic dishonesty (e.g., cheating, plagiarism).
3. Unethical or unprofessional behavior which could include but is not limited to, dishonesty; lack of collegiality, cooperation, or responsibility; inability to handle stress; abrasiveness; lack of timeliness; to name a few.
4. Behaviors that obstruct the leadership process and/or threaten the welfare of the student or others (e.g., verbal abuse, physical abuse, active substance abuse).
5. Failure to comply with established University or Program timetables, requirements, and policies (e.g., failure to meet time limits for completion of degree program).
6. Violation of federal, state, or local laws on UMKC premises or at UMKC sponsored or supervised activities.
7. Consideration may be given to other circumstances as they arise.

Procedures for Student Evaluation

To protect student interests as well as the rights of faculty to uphold the academic and professional standards of the academic program, the following steps may be taken as part of the academic review process:

1. If a concern about student behavior develops within the context of a course or at a field experience, the course instructor and/or field supervisor documents concerns and notifies the student’s faculty advisor. The instructor meets with the student (and the faculty advisor if needed) to outline deficiencies and establish a remedial course of action (if appropriate). Chronological time frames may be established to evaluate performance. Others (i.e., program faculty or professionals and agents outside the university) who have university-related concerns about a student outside of the context of a course may communicate their concerns directly to the appropriate division chair or the Dean’s Office. (Such discussions are governed by the Family Educational Rights and Privacy Act.)
2. If the instructor(s) has made a reasonable determination with adequate documentation that a pattern of severe problems exists, he or she warrants additional action beyond that already taken. Then the instructor will communicate the concerns, actions taken and their outcomes to the faculty advisor and Division Chair and request a hearing panel be assembled to review the student’s status.
3. The student will be informed in writing by the Division Chair of the concerns and a hearing will be set by the Dean’s Office with the program faculty (at least three faculty, in addition to the faculty member filing the complaint, must be present) and the student. An Associate Dean will present the scenario(s) and the student will have a right to respond to the allegations. The hearing panel may ask questions of both parties. The student may bring another person of support to the hearing but this individual may not speak on behalf of the student. The student will receive copies of all written documentation related to the allegations in advance of the hearing. This hearing will determine the student’s status in the program.
4. The program faculty will notify the student in writing of the outcome of the hearing and make a recommendation to the Dean.
5. The student has a right to appeal the decision of the program faculty and must notify the Dean in writing within ten business days of the faculty decision. Another hearing will take place between the student and the Dean or his/her designee. The Dean reviews the recommendation and conveys a decision to the respective faculty group and the student.

6. Students who have been declared ineligible due to unsatisfactory progress or performance may appeal such decisions to the Dean of the School of Graduate Studies, as designee of the Chancellor. This appeal must be made in writing within 14 consecutive days after receipt of the registrar's notification to the student of the decision. The Dean of the School of Graduate Studies will review the full record of the case and the appeal document.

7. The decision of the Graduate Dean, as the Chancellor's designated representative in such cases, is final and will be communicated in writing to:
   a. The student
   b. The graduate faculty review group(s)
   c. The academic dean
   d. The registrar

**Faculty Scholastic Activity and Research Interests**

Faculty in Educational Leadership, Policy and Foundations have a wide variety of experiences and interests. Faculty members engage in research and consult on education-related issues in both public and higher education. The faculty are committed to multiculturalism and the importance of diversity in education settings. They advise students in research and administrative endeavors, and help them achieve their professional career goals.
Advising and Student Services

The School of Education Student Services Office mission is to facilitate student success by providing quality services and support in the spirit of building a community of learners. The office is a resource for all School of Education students, providing program information as well as referrals to other campus resources and services. Primary responsibilities are to provide quality advising for undergraduates and to coordinate the processing of certification. The staff also assists with recruitment events, contact with prospective students, freshmen and transfer orientation, admissions to teacher education, School of Education scholarship materials, commencement and other student-centered activities.

Academic advisors are available to meet with undergraduate education majors and those seeking teacher certification. Academic advisors can be reached by contacting Student Services in person in the School of Education Learning Commons, room 129, by phone at (816) 235-2234 or by e-mail at education@umkc.edu.

Graduate students are encouraged to contact their department within the first semester to connect with their faculty advisor.
Scholarships

School of Education Scholarship Information

Three types of scholarships are available to students: Automatic (considered when applying to UMKC); Additional scholarships to apply for through the UMKC Financial Aid and Scholarships Office, and School of Education scholarships. The SOE scholarships are available to undergraduate and graduate students in our programs.

Applicants

- Must be admitted to the School of Education
- Submit application typically by February 1st (official date will be posted on the School of Education website)
- Must complete a new application each year
- Previous recipients may reapply
- Number and dollar amount of awards vary from year to year
- Awards are not automatically renewable
- Undergraduate students must be enrolled in at least 12 credit hours each semester during the new academic year to receive a scholarship
- Graduate students must be enrolled in at least 6 credit hours each semester during the new academic year to receive a scholarship

Procedures

The procedure for applying for a scholarship will be found on the School of Education website.

Selection Process/Timeline

- December: Scholarship application opens
- February 1st: Applications are due and committee begins review
- April: All applicants are notified if selected
- September: All scholarship recipients will be honored at the SOE scholarship event scheduled in the beginning of the next academic year.

For more information about the SOE Scholarships go to http://education.umkc.edu/students/scholarships-and-financial-aid/
Student Organizations

The School of Education Student Government strives to expand the students’ academic concerns and abilities, promote students’ involvement in the School of Education and the University, act on all matters concerning students’ welfare, aid faculty and students in cooperative work and promote a professional attitude and feeling of responsibility. Community service is also a regular part of the activity of the SOESG. The organization meets on a regular basis and welcomes all students’ attendance and participation.

The American Psychological Association – Student Affiliate Group encourages professional development within the field of counseling psychology. It also serves as a meeting time for the members to discuss issues and concerns of the counseling psychology doctoral program. It encourages students to organize educational, social and fund raising events, and to act as a liaison with the counseling psychology faculty and the UMKC community.

The Master’s of Counseling Student Organization (MCSA) is the organization for students pursuing their Master’s in Counseling and Guidance. It serves as a source of support and advocacy for students enrolled in the program. In addition to seminars and social events, MCSA has a student mentorship program. For more information, contact your MCSA officers or the division Administrative Assistant at (816) 235-2722.

The Higher Education Student Association (HESA) is a student-run organization founded to further the understanding of the purpose and practices of higher education. HESA’s purpose is to serve the specific and current needs of students enrolled in or interested in the Higher Education Administration program at UMKC. The goals of the organization are to:

• Create a community among higher education administration students, faculty, and alumni
• Provide a forum for the exchange of ideas on current issues in higher education
• Offer professional experiences in conference participation, planning and organization
• Network with other Higher Education Student associations
• Assist in the professional advancement of members
Retention

Education majors are expected to maintain a quality of achievement significantly above minimum UMKC standards for degree work. Individual student progress will be monitored throughout the program. Satisfactory progress is required of all students for retention in the teacher preparation program. Students are expected to maintain academic standards, perform satisfactorily in clinical courses, refrain from academic dishonesty, comply with the established University and teacher education timetables and requirements, and refrain from unethical or unprofessional behavior or behaviors that obstruct the training process or threaten the welfare of the student or others. Other circumstances involving student behavior will be addressed by the faculty on an individual basis.

Title II Notice

Title II of the Higher Education Act requires that every institution of higher education provide public information regarding the pass rate of the institution’s graduates on the teacher certification or licensure assessment of the state in which the institution is located. Additionally, Title II requires that a comparison of each program’s pass rate be made with the average pass rate in the state.

Graduates of the teacher education program at UMKC have achieved a 100% pass rate on the Praxis II, a nationally normed examination required by the State of Missouri for certification purposes. The average pass rate in Missouri is 99%.
Undergraduate Programs

The School of Education offers the following undergraduate degree programs:

- B.A., Early Childhood Education (p. 1081)
- B.A., Elementary Education (p. 1085)
- B.A., Middle School Education (p. 1089)
- B.A., Secondary Education (p. 1100)

Students may contact the School of Education Student Services Office for specific program information.

Students may also elect to pursue a dual degree between Education and Arts and Sciences. Secondary education majors may earn a B.A. or B.S. degree in a major in the College of Arts and Sciences. Elementary and early childhood education majors may earn a bachelor of liberal arts degree in the College of Arts and Sciences. Contact the advising office of the College of Arts and Sciences for more details.
Admission to the Teacher Education Program

Students new to UMKC should send transcripts and applications for admission to:

UMKC Office of Admissions
5100 Rockhill Road
Kansas City, MO 64110-2499

Initial admission at the freshman or sophomore level will be as a pre-professional major to the School of Education in accordance with regular UMKC admissions standards. For students interested in music education, admission will be to the Conservatory of Music and Dance: https://conservatory.umkc.edu/content.cfm?cont=1C24.

Due to program accreditation requirements all students (both first-year college and transfer) will need to submit ACT or SAT scores to UMKC for review.

Current UMKC students or transfer students seeking entry into professional teacher preparation programs should apply for admission to Teacher Education when they anticipate completion of the majority of their pre-professional coursework. The major map for each degree option details the appropriate sequence of pre-professional courses and optimal application term: http://umkc.edu/majormaps.

Students must have a current cumulative GPA of at least a 2.75 to be eligible to submit an application for admission into the Professional Education Program of their choice. Cumulative GPA includes all UMKC and/or University of Missouri-system coursework for native students and all transfer coursework for transfer students. Professional Teacher Education cohorts are admitted each fall term. More information may be found at http://education.umkc.edu/students/admissions/.

Full Admission into the Profession-level Teacher Education Program requires:

- Completion of Pre-professional requirements (prerequisites and subject/content area coursework) with a GPA of 3.0 or higher in content courses, 3.0 or higher in all TCH-ED courses and 3.0 or higher overall (cumulative).
- Score results from the ACT or SAT officially recorded by UMKC.
- Passing scores on the Missouri General Education Assessment (MoGEA)
- Completion of the Missouri Educator Profile (MEP)
- Passing scores on the Missouri Content Assessment (MoCA) for all K-12, Middle School and Secondary Education students.
  - Note – K-12 Foreign Language Applicants are waived from the MoCA as an admission requirement, but will be required to take the MoCA after gaining admission to the Professional-level Teacher Education Program. See the relevant major map for guidance on when to complete the MoCA.
- Completion of all General Education classes.
- FBI background check clearance.
- Interview with faculty.
- Two letters of recommendation indicating appropriate dispositions for educating children.
- Middle School and Secondary Education students must be fully admitted to the professional program by fall 2020 in order to complete the Bachelor of Arts program at the School of Education.

Liability Insurance

The School of Education requires all students to have current professional liability insurance during all field experiences and student teaching. Students must provide verification of current professional liability insurance to the Educational Field Experiences office. Students can obtain this insurance by becoming a “student member” of educational organizations (e.g., MSTA or NEA), both of which provide this insurance, or they may purchase coverage through an independent insurance agent.

Master of Arts in Teaching (MAT)

Students who have earned a baccalaureate degree in another field and wish to become certified teachers while earning a master’s degree should apply to the School of Graduate Studies for the Master of Arts in Teaching (MAT). Academic work completed prior to admission will be reviewed on a course-by-course basis to determine applicability to teacher certification requirements. More information on the MAT and prerequisites can be found at http://education.umkc.edu/academics/masters-degrees/mat/.
Graduation and Certification Requirements

All undergraduate students must abide by the School of Education Policies and Procedures and by the Undergraduate Admission Policies and Procedures in this catalog.

All students completing an undergraduate teacher education degree must meet the following conditions in order to graduate and be recommended for teacher certification:

- 2.75 cumulative GPA/3.0 content GPA/3.0 Professional GPA.
- Completion of at least 120 credit hours if earning first bachelor’s degree (although many programs will require more than 120 credits).
- "C" or higher in all Education courses.
- "C" or higher in all subject-area courses required for Middle School and Secondary degrees.
- Successful completion of the Missouri Pre-Service Teacher Assessment (MoPTA)
- Passing score on the certification exam(s) required by the State of Missouri

All students completing a baccalaureate degree program in the School of Education must apply to graduate by the posted deadline during their final semester of enrollment. The deadline for making application to graduate is posted on each term’s academic calendar and on each student’s registration materials. See your academic advisor for questions about these requirements.
The Institute for Urban Education (IUE) Scholarship is an undergraduate scholarship program in the School of Education for students who are interested in teaching elementary or middle school education with a focus in the teaching of mathematics, social science, science, and literacy. The scholarship is specifically targeted at students who have a strong interest in becoming teachers in urban schools.

Students receiving IUE scholarships make a commitment to teach in an urban district following graduation in exchange for financial support. Questions regarding the IUE’s programs and offerings should be directed to Student Services at (816) 235-2234.
Bachelor of Arts: Early Childhood Education

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

1. Understand how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and designs and implements developmentally appropriate and challenging learning experiences.

2. Understand of individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.

3. Work with others to create environments that support individual and collaborative learning, and that encourage positive social interaction, active engagement in learning, and self-motivation.

4. Understand the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make these aspects of the discipline accessible and meaningful for learners to assure mastery of the content.

5. Understand how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues.

6. Understand and use multiple methods of assessment to engage learners in their own growth, to monitor learner progress, and to guide the teacher’s and learner’s decision making.

7. Plan instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of learners and the community context.

8. Understand and use a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways.

9. Engage in ongoing professional learning and use evidence to continually evaluate their practice, particularly the effects of their choices and actions on others (learners, families, other professionals, and the community), and adapt practice to meet the needs of each learner.

10. Seek appropriate leadership roles and opportunities to take responsibility for student learning, to collaborate with learners, families, colleagues, other school professionals, and community members to ensure learner growth, and to advance the profession.

The student learning outcomes for the BA in Early Childhood Education program listed above reflect the Interstate Teacher Assessment and Support Consortium (InTASC) standards that are required as the basis for teacher preparation programs by the Council for the Accreditation of Educator Preparation (CAEP).

Program Requirements
Teacher Education Admission Requirements (p. 1078)
Completion of this program leads to a Bachelor of Arts degree in the School of Education. Contingent upon satisfactory completion of all degree coursework, key assessments, and state testing requirements, teacher candidates may be eligible for certification upon recommendation of the Teacher Education faculty.

A 3.00 cumulative GPA, 3.00 content area GPA and 3.00 professional education GPA is required at completion of the program. Grades of C (2.00) or better are required in all content area and education classes. Prospective students and teacher candidates should meet each semester with an academic advisor to determine specific course requirements.

The School of Education requires all teacher candidates to have current professional liability insurance during all field experiences and student teaching. Verification of current professional liability insurance must be provided to the School of Education Student Services office. Insurance can be obtained through “student membership” in an educational organization (e.g., MSTA or NEA) that provides such insurance or purchased coverage through an independent insurance agent.

Candidates admitted to the Professional Teacher Education Program must uphold all academic and social regulations and policies established by the School of Education. Candidates are subject to any Missouri legislative action or State Board of Education policy that may become effective during the lifetime of this catalog. The responsibility of the School of Education is to recommend qualified candidates for licensure to the state and to ensure our candidates meet or exceed these requirements. While the degree programs outlined in the catalog are aligned with state requirements, certification is dependent on both the degree requirements and successful completion of all state assessments required by the Missouri State Department of Elementary and Secondary Education. Additionally, candidates must successfully complete program Key Assessments each semester to continue in the program.

NOTE: During the student teaching semester, teacher candidates follow the school district’s calendar, not the UMKC academic/semester calendar. Teacher candidates begin student teaching according to the school district’s calendar and not the first day of the UMKC academic/semester calendar.

### Program Specific Recommendations for UMKC General Education Core Coursework

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<tr>
<th>Code</th>
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<th>Credits</th>
</tr>
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<tr>
<td>Anchor I 1</td>
<td>Anchor I 1</td>
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<tr>
<td>Anchor II 1</td>
<td>Anchor II 1</td>
<td>3</td>
</tr>
<tr>
<td>Anchor III 1</td>
<td>Anchor III 1</td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus B (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus C (Satisfied in program requirements below)</td>
<td></td>
<td></td>
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<tr>
<td>Focus Elective (Satisfied in program requirements below)</td>
<td></td>
<td></td>
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<tr>
<td>Total Credits</td>
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<td>18</td>
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</table>

1. See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

### Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td></td>
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<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
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<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
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<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
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</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) 1</td>
<td></td>
</tr>
</tbody>
</table>

1. Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.
There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

### Pre-Professional Requirements

<table>
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<tr>
<th>Code</th>
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<tr>
<td></td>
<td><strong>Coursework Required before Admission to the Teacher Education Professional Program</strong></td>
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<tr>
<td></td>
<td>Science with Lab (select one of the following)</td>
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<tr>
<td>BIOLOGY 102</td>
<td>Biology and Living and Biology and Living Laboratory</td>
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<tr>
<td>&amp; 102L</td>
<td></td>
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</tr>
<tr>
<td>ENV-SCI 110R &amp; ENV-SCI 110L</td>
<td>Understanding the Earth: Introduction to Environmental Science and Laboratory and Understanding the Earth Laboratory</td>
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<tr>
<td>CHEM 206</td>
<td>Human Nutrition (Focus B)</td>
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<tr>
<td>ENGLISH 250</td>
<td>Introduction to Language Acquisition and Diversity</td>
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</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C and Satisfies Constitution Course Requirement)</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C and Satisfies Constitution Course Requirement)</td>
<td>3</td>
</tr>
<tr>
<td>or HISTORY 102</td>
<td>U.S. History Since 1877</td>
<td></td>
</tr>
<tr>
<td>TCH-ED 130</td>
<td>Number Systems and Related Topics</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 140</td>
<td>Geometry for Elementary Teachers</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 160</td>
<td>Introduction to Teaching</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 201</td>
<td>Children's Literature (Focus A)</td>
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<tr>
<td>TCH-ED 400</td>
<td>Child Development</td>
<td>3</td>
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<tr>
<td>TCH-ED 403</td>
<td>Educational Psychology</td>
<td>3</td>
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<tr>
<td>TCH-ED 404</td>
<td>Education of the Exceptional Child and Youth</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 440</td>
<td>Introduction To Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 441</td>
<td>Language Development</td>
<td>3</td>
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<td><strong>Total Credits</strong></td>
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<tr>
<td></td>
<td><strong>Coursework Required for the Teacher Education Professional Program</strong></td>
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<td></td>
<td><strong>Block 1</strong></td>
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<tr>
<td>TCH-ED 312</td>
<td>Legal and Ethical Aspects of Teaching</td>
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<tr>
<td>TCH-ED 333</td>
<td>Learning Environments: Birth to Grade 3</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 451</td>
<td>Child Guidance in Early Childhood Classrooms</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 457</td>
<td>Infant and Toddler Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 459</td>
<td>Early Childhood Program Management</td>
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<td>TCH-ED 480</td>
<td>Practicum I Early Childhood</td>
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<td>TCH-ED 385</td>
<td>Teaching and Learning with Technology</td>
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<tr>
<td>TCH-ED 444</td>
<td>Mathematics in Early Childhood I</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 445</td>
<td>Science In Early Childhood</td>
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</tr>
<tr>
<td>TCH-ED 446</td>
<td>Early Childhood Creative Activities</td>
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<td>TCH-ED 447</td>
<td>Social Studies in Early Childhood</td>
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<td>TCH-ED 481</td>
<td>Practicum II Early Childhood</td>
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<td>TCH-ED 483</td>
<td>Early Childhood Literacy I</td>
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<tr>
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<td><strong>Block 3</strong></td>
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<tr>
<td>TCH-ED 438</td>
<td>Culturally Responsive Strategies for Teaching Diverse Learners</td>
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<tr>
<td>TCH-ED 442</td>
<td>Assessment, Screening, and Data-Informed Early Childhood Teaching</td>
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<tr>
<td>TCH-ED 443</td>
<td>Mathematics in Early Childhood II</td>
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Bachelor of Arts: Early Childhood Education

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<tr>
<th>Course Code</th>
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<td>TCH-ED 452</td>
<td>Family and Program Relationships in Early Childhood Education</td>
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<tr>
<td>TCH-ED 484</td>
<td>Early Childhood Literacy II</td>
<td>4</td>
</tr>
<tr>
<td>TCH-ED 487</td>
<td>Practicum III - Early Childhood</td>
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<td>Block 4</td>
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<td>TCH-ED 456</td>
<td>Student Teaching in Early Childhood</td>
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<tr>
<td>TCH-ED 486</td>
<td>Seminar - Early Childhood</td>
<td>3</td>
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<tr>
<td>Total Credits</td>
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</tr>
</tbody>
</table>

Minimum GPA: 3.0
Total Credit Hours: 126

Students interested in a writing intensive experience or going deeper into learning about educational foundations may be interested in the following optional elective: Advanced Foundations (TCH-ED 408WI)

Graduation Requirements Early Childhood Education
- Successful completion of Teacher Education Key Assessments
- Completion of all coursework listed above
- RooWriter Completion
- Successful completion of all Missouri state certification requirements/exams
- Exit Survey completed

Tools for Planning and Fulfilling Academic Requirements
UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit.” In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edutransferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Arts: Elementary Education

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

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Students graduating from this program will:

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9. Engage in ongoing professional learning and use evidence to continually evaluate their practice, particularly the effects of their choices and actions on others (learners, families, other professionals, and the community), and adapt practice to meet the needs of each learner.
10. Seek appropriate leadership roles and opportunities to take responsibility for student learning, to collaborate with learners, families, colleagues, other school professionals, and community members to ensure learner growth, and to advance the profession.

The School of Education subscribes to the Missouri Standards for the Preparation of Educators (MoSPE) which can be found on the website of the Missouri Department of Elementary and Secondary Education - dese.mo.gov (http://dese.mo.gov). The student learning outcomes for the BA in Elementary Education program listed above reflect the Interstate Teacher Assessment and Support Consortium (InTASC) standards that are required as the basis for teacher preparation programs by the Council for the Accreditation of Educator Preparation (CAEP).

Program Requirements

Teacher Education Admission Requirements (p. 1078)
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### Program Specific Recommendations for UMKC General Education Core Coursework

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<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
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</tr>
<tr>
<td>Anchor II</td>
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<td>Anchor III</td>
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<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
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<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
</tbody>
</table>

Focus A (Satisfied in program requirements below)

Focus B (Satisfied in program requirements below)

Focus C (Satisfied in program requirements below)

Focus Elective (Satisfied in program requirements below)

**Total Credits** 18

---

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

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<thead>
<tr>
<th>Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td></td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
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<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:
• Take an equivalent course from the list above at a regionally accredited institution.
• Earn credit for one of the above courses through AP, IB, or CLEP.
• Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
• Have a previous bachelors degree (or higher) from a regionally accredited institution.
• Have an Associate of Arts degree from a regionally accredited institution.
• Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

### Pre-Professional Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>Coursework Required before Beginning the Teacher Education Professional Program</strong></td>
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</tr>
<tr>
<td>BIOLOGY 102</td>
<td>Biology and Living (Focus B)</td>
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<tr>
<td>BIOLOGY 102L</td>
<td>Biology and Living Laboratory</td>
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<tr>
<td>CONSVTY 285</td>
<td>Elementary Music Methods</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 250</td>
<td>Introduction to Language Acquisition and Diversity</td>
<td>3</td>
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<tr>
<td>ENV-SCI 110R</td>
<td>Understanding the Earth: Introduction to Environmental Science and Laboratory (Focus B)</td>
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<tr>
<td>ENV-SCI 110L</td>
<td>Understanding the Earth Laboratory</td>
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<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C and satisfies the Constitution requirement)</td>
<td>3</td>
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<tr>
<td>or HISTORY 102</td>
<td>U.S. History Since 1877</td>
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<tr>
<td>PHYS-ED 401</td>
<td>Teaching Healthy Behaviors in the Schools</td>
<td>3</td>
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<td>POL-SCI 210</td>
<td>American Government (Focus C and satisfies the Constitution requirement)</td>
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<tr>
<td>TCH-ED 130</td>
<td>Number Systems and Related Topics</td>
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<td>TCH-ED 140</td>
<td>Geometry for Elementary Teachers</td>
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<tr>
<td>TCH-ED 160</td>
<td>Introduction to Teaching</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 201</td>
<td>Children's Literature (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 403</td>
<td>Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 404</td>
<td>Education of the Exceptional Child and Youth</td>
<td>3</td>
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<td><strong>Total Credits</strong></td>
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<tr>
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<tr>
<td><strong>Block 1</strong></td>
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<tr>
<td>TCH-ED 310</td>
<td>Classroom Climate and Organization</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 312</td>
<td>Legal and Ethical Aspects of Teaching</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 314</td>
<td>Cultural Diversity and Teaching English Language Learners</td>
<td>3</td>
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<tr>
<td>TCH-ED 316</td>
<td>Reading and Language Arts I</td>
<td>4</td>
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<td>TCH-ED 385</td>
<td>Teaching and Learning with Technology</td>
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<td>TCH-ED 397</td>
<td>Practicum I - Elementary</td>
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<td><strong>Block 2</strong></td>
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<td></td>
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<tr>
<td>TCH-ED 317</td>
<td>Reading and Language Arts II</td>
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<td>TCH-ED 398</td>
<td>Practicum II – Elementary</td>
<td>1</td>
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<td>TCH-ED 402</td>
<td>Integrated Arts</td>
<td>3</td>
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<tr>
<td>TCH-ED 413</td>
<td>Mathematics in the Elementary School I</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 417</td>
<td>Science Methods in the Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 418</td>
<td>Social Studies in the Elementary School</td>
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<td><strong>Block 3</strong></td>
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<tr>
<td>TCH-ED 315</td>
<td>Assessment and Data Literacy</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 429</td>
<td>Mathematics in the Elementary School II</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 438</td>
<td>Culturally Responsive Strategies for Teaching Diverse Learners</td>
<td>3</td>
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<tr>
<td>TCH-ED 475</td>
<td>Working with Families and Communities</td>
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</tr>
<tr>
<td>TCH-ED 479</td>
<td>Practicum III – Elementary</td>
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<tr>
<td><strong>Block 4</strong></td>
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</tr>
<tr>
<td>TCH-ED 419</td>
<td>Student Teaching in Elementary School</td>
<td>9</td>
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</tbody>
</table>
Students interested in a writing intensive experience or going deeper into learning about educational foundations may be interested in the following optional elective: Advanced Foundations (TCH-ED 408WI).

**Graduation Requirements Elementary Education**

- Completion of at least 120 credit hours including all course work listed (although program may require more than 120 credits)
- RooWriter Completion
- Passing score on the Missouri Content Assessment: Elementary Education Multi-Content test
- Successful completion of Teacher Education Key Assessments
- Successful completion of the Missouri Pre-Service Teacher Assessment (MoPTA)
- Exit survey

**Tools for Planning and Fulfilling Academic Requirements**

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major "fit". In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student's officially recorded (Office of Registration and Records) and "what if" plans of study. This evaluation is used to certify all graduation requirements.

UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Arts: Middle School Education

Students interested in completing this program at UMKC must be admitted to the Teacher Education Professional Program no later than Fall 2020 and must complete the program by May 2022.

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

• 1. Understand how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and designs and implements developmentally appropriate and challenging learning experiences.
• 2. Understand individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.
• 3. Work with others to create environments that support individual and collaborative learning, and that encourage positive social interaction, active engagement in learning, and self-motivation.
• 4. Understand the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make these aspects of the discipline accessible and meaningful for learners to assure mastery of the content.
• 5. Understand how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues.
• 6. Understand and use multiple methods of assessment to engage learners in their own growth, to monitor learner progress, and to guide the teacher’s and learner’s decision making.
• 7. Plan instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of learners and the community context.
• 8. Understand and use a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways.
• 9. Engage in ongoing professional learning and use evidence to continually evaluate their practice, particularly the effects of their choices and actions on others (learners, families, other professionals, and the community), and adapt practice to meet the needs of each learner.
• 10. Seek appropriate leadership roles and opportunities to take responsibility for student learning, to collaborate with learners, families, colleagues, other school professionals, and community members to ensure learner growth, and to advance the profession.

The School of Education subscribes to the Missouri Standards for the Preparation of Educators (MoSPE) which can be found on the website of the Missouri Department of Elementary and Secondary Education - dese.mo.gov (http://dese.mo.gov). The student learning outcomes for the BA in Middle School Education program listed above reflect the Interstate Teacher Assessment and Support Consortium (InTASC) standards that are required as the basis for teacher preparation programs by the Council for the Accreditation of Educator Preparation (CAEP; national accrediting body).
Completion of this program leads to a Bachelor of Arts degree in the School of Education. Contingent upon satisfactory completion of all degree coursework, key assessments, and state testing requirements, teacher candidates may be eligible for certification upon recommendation of the Teacher Education faculty.

A 3.00 cumulative GPA, 3.00 content area GPA and 3.00 professional education GPA is required at completion of the program. Grades of C (2.00) or better are required in all content area and education classes. Prospective students and teacher candidates should meet each semester with an academic advisor to determine specific course requirements.

The School of Education requires all teacher candidates to have current professional liability insurance during all field experiences and student teaching. Verification of current professional liability insurance must be provided to the School of Education Student Services office. Insurance can be obtained through "student membership" in an educational organization (e.g., MSTA or NEA) that provides such insurance or purchased coverage through an independent insurance agent.

Candidates admitted to the Professional Teacher Education Program must uphold all academic and social regulations and policies established by the School of Education. Candidates are subject to any Missouri legislative action or State Board of Education policy that may become effective during the lifetime of this catalog. The responsibility of the School of Education is to recommend qualified candidates for licensure to the state and to ensure our candidates meet or exceed these requirements. While the degree programs outlined in the catalog are aligned with state requirements, certification is dependent on both the degree requirements and successful completion of all state assessments required by the Missouri State Department of Elementary and Secondary Education. Additionally, candidates must successfully complete program Key Assessments each semester to continue in the program.

NOTE: During the student teaching semester, teacher candidates follow the school district’s calendar, not the UMKC academic/semester calendar. Teacher candidates begin student teaching according to the school district’s calendar and not the first day of the UMKC academic/semester calendar.

### Language Arts Emphasis Area

#### Program Specific Recommendations for UMKC General Education Core Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I 1</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor II 1</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor III 1</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A 1</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus B 1</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>Focus C (May be Satisfied in Constitution Course Requirements Below)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Focus Elective 1</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
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<tr>
<td>Total Credits</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>27</td>
</tr>
</tbody>
</table>

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

#### Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

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<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
</tbody>
</table>
Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>ENGLISH 119</td>
<td>Myth and Literature (Focus A)</td>
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<td>ENGLISH 207</td>
<td>World Literature in English (Focus A)</td>
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<td>ENGLISH 317</td>
<td>British Literature I</td>
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<tr>
<td>ENGLISH 323</td>
<td>Shakespeare</td>
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<tr>
<td>ENGLISH 326</td>
<td>Modern And Contemporary Irish Literature</td>
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<tr>
<td>ENGLISH 327</td>
<td>British Literature II</td>
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<tr>
<td>ENGLISH 340AWI</td>
<td>Classical Literature in Translation</td>
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<tr>
<td>ENGLISH 344WI</td>
<td>Women &amp; Literary Culture: Genre Focus</td>
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<td>ENGLISH 434</td>
<td>Postcolonial Literature</td>
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<tr>
<td>CLASSICS 210</td>
<td>Foundations Of Ancient World Literature I</td>
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**Elective English Credits (select one of the following):**

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<tr>
<td>ENGLISH 331</td>
<td>African American Literature I</td>
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<tr>
<td>ENGLISH 332WI</td>
<td>African American Novel</td>
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<td>ENGLISH 333</td>
<td>African American Literature II</td>
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<tr>
<td>ENGLISH 367</td>
<td>Introduction to Latinx Literature</td>
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<tr>
<td>ENGLISH 378</td>
<td>Asian American Literature</td>
<td></td>
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<tr>
<td>ENGLISH 408</td>
<td>Harlem Renaissance</td>
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<td>ENGLISH 410</td>
<td>Black Women Writers</td>
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<tr>
<td>BLKS 334</td>
<td>From Field Shout to Hip Hop: African American Poetic Traditions</td>
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<tr>
<td>BLKS 337</td>
<td>The Civil Rights Movement in African American Literature</td>
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**Study of English Language (select one of the following):**

<table>
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<th>Credits</th>
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<tbody>
<tr>
<td>ENGLISH 310</td>
<td>Introduction To Linguistics/Language Science</td>
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<tr>
<td>ENGLISH 320</td>
<td>Structure Of English</td>
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<td>ENGLISH 330</td>
<td>History Of The English Language</td>
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**American Literature (select one of the following):**

<table>
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<tr>
<td>ENGLISH 311</td>
<td>American Literature I</td>
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<tr>
<td>ENGLISH 321</td>
<td>American Literature II</td>
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**Composition and Rhetoric (select 3 of the following courses):**

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<td>ENGLISH 305WI</td>
<td>Theory And Practice Of Composition</td>
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<td>ENGLISH 307WI</td>
<td>Language, Literacy, Power</td>
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</tr>
<tr>
<td>ENGLISH 308</td>
<td>Rhetorics of New Media</td>
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<td>ENGLISH 309WI</td>
<td>Rhetorics of Public Memory</td>
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<td>ENGLISH 342WI</td>
<td>Women And Rhetoric</td>
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<td>ENGLISH 445</td>
<td>History And Principles Of Rhetoric</td>
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<tr>
<td></td>
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**Teacher Education Professional Requirements**

**Block 1**
TCH-ED 202  Literature for Adolescents  3
TCH-ED 312  Legal and Ethical Aspects of Teaching  3
TCH-ED 330  Analyzing Learning Environments in Urban Contexts  3
TCH-ED 403  Educational Psychology  3
TCH-ED 404  Education of the Exceptional Child and Youth  3
TCH-ED 420  Adolescent Development  3
TCH-ED 422  Practicum I - Middle and High School  1

Block 2
EDRD 439  Language & Literacy across the Disciplines  3
TCH-ED 314  Cultural Diversity and Teaching English Language Learners  3
TCH-ED 385  Teaching and Learning with Technology  3
TCH-ED 396  English Language Study for Middle and High School Teachers  3
TCH-ED 423  Practicum II - Middle and High School  1
TCH-ED 462  Middle School Philosophy and Organization  3

Block 3
TCH-ED 315  Assessment and Data Literacy  3
TCH-ED 424  Practicum III - Middle and High School  1
TCH-ED 432  Special Methods of Teaching English in Middle and High Schools  3
TCH-ED 438  Culturally Responsive Strategies for Teaching Diverse Learners  3
TCH-ED 482  Seminar in Teaching and Evaluating Writing  3

Block 4
TCH-ED 461  Student Teaching In Middle School  9
TCH-ED 463  Literacy Intervention across the Disciplines  3
TCH-ED 494  Seminar - English/Language Arts  3

Total Credits  63

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

Students interested in a writing intensive experience or going deeper into learning about educational foundations may be interested in the following optional elective: Advanced Foundations (TCH-ED 408WI)

Minimum GPA: 3.0

Total Credits: 120

Mathematics Emphasis Area

Program Specific Recommendations for UMKC General Education Core Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Anchor I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Anchor II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Anchor III</td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Focus A</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Focus B (Satisfied in Content Area Requirements Below)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Focus C (May be Satisfied in Constitution Course Requirement Below)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Focus Elective (Satisfied in Content Area Requirements Below)</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits  21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
**Constitution Course Requirement**

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

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</thead>
<tbody>
<tr>
<td></td>
<td>Choose one of the following:</td>
<td></td>
</tr>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mathematics Content Coursework (Pre-Professional Program)</td>
<td></td>
</tr>
<tr>
<td>EDUC 402R</td>
<td>Algebraic Thinking for Teachers</td>
<td>3</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 130</td>
<td>Mathematics for Teachers: Number Systems (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>or TCH-ED 130</td>
<td>Number Systems and Related Topics</td>
<td></td>
</tr>
<tr>
<td>MATH 140</td>
<td>Mathematics for Teachers: Elementary Geometry (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>or TCH-ED 140</td>
<td>Geometry for Elementary Teachers</td>
<td></td>
</tr>
</tbody>
</table>

Choose 15 hours from the following: 15

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MATH 116</td>
<td>Mathematics For Liberal Arts (Focus B)</td>
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<tr>
<td>MATH 120</td>
<td>Precalculus (Focus B)</td>
<td>1</td>
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<tr>
<td>MATH 125</td>
<td>Trigonometry</td>
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<tr>
<td>MATH 202</td>
<td>Analytic Geometry</td>
<td></td>
</tr>
<tr>
<td>MATH 204</td>
<td>Mathematics for Teachers: Mathematical Immersion</td>
<td></td>
</tr>
<tr>
<td>MATH 205</td>
<td>Discrete Mathematics</td>
<td></td>
</tr>
<tr>
<td>MATH 206</td>
<td>Brief Calculus And Matrix Algebra</td>
<td></td>
</tr>
<tr>
<td>MATH 210</td>
<td>Calculus I (Focus B)</td>
<td></td>
</tr>
<tr>
<td>MATH 214</td>
<td>Mathematics for Teachers: Algebra</td>
<td></td>
</tr>
<tr>
<td>MATH 220</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>MATH 224</td>
<td>Mathematics for Teachers: Geometry</td>
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</tr>
<tr>
<td>STAT 235</td>
<td>Elementary Statistics (Focus B)</td>
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</tbody>
</table>

Total Credits 27

1 Credit will be given for either MATH 110 or MATH 120, and for either MATH 120 or MATH 125.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teacher Education Professional Requirements</td>
<td></td>
</tr>
<tr>
<td>Block 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Students interested in a writing intensive experience or going deeper into learning about educational foundations may be interested in the following optional elective: Advanced Foundations (TCH-ED 408WI)

Minimum GPA: 3.0

Total Credits: 120

**Science Emphasis Area**

**Program Specific Recommendations for UMKC General Education Core Coursework**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td></td>
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</tr>
<tr>
<td>DISC 200</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
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<td>3</td>
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<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B</td>
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<td>3</td>
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<tr>
<td>Focus C</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus Elective</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
Constitution Course Requirement

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<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits: 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
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Science Content Coursework (Pre-Professional Program)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ASTR 150</td>
<td>Astronomy: Motions of the Cosmos (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>or ASTR 155</td>
<td>Astronomy: Starlight and Star Stuff</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 108 &amp; 108L</td>
<td>General Biology I and General Biology I Laboratory (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 211 &amp; 211L</td>
<td>General Chemistry I and Experimental General Chemistry I (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td>ENV-SCI 110R &amp; ENV-SCI 110L</td>
<td>Understanding the Earth: Introduction to Environmental Science and Laboratory and Understanding the Earth Laboratory (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td>GEOG 406</td>
<td>Global Environmental Change</td>
<td>3</td>
</tr>
<tr>
<td>PHY-SCI 171</td>
<td>Physics For Future Presidents (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>or PHY-SCI 140</td>
<td>How Things Work</td>
<td></td>
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</tbody>
</table>

Science Elective (Select one additional science course)

Total Credits: 26

Code       | Title                                               | Credits |
-----------|------------------------------------------------------|---------|

Teacher Education Professional Requirements

Block 1

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>TCH-ED 312</td>
<td>Legal and Ethical Aspects of Teaching</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 330</td>
<td>Analyzing Learning Environments in Urban Contexts</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 403</td>
<td>Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 404</td>
<td>Education of the Exceptional Child and Youth</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 420</td>
<td>Adolescent Development</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 422</td>
<td>Practicum I - Middle and High School</td>
<td>1</td>
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Block 2

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EDRD 439</td>
<td>Language &amp; Literacy across the Disciplines</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 314</td>
<td>Cultural Diversity and Teaching English Language Learners</td>
<td>3</td>
</tr>
</tbody>
</table>
Bachelor of Arts: Middle School Education

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCH-ED 385</td>
<td>Teaching and Learning with Technology</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 417</td>
<td>Science Methods in the Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 423</td>
<td>Practicum II - Middle and High School</td>
<td>1</td>
</tr>
<tr>
<td>TCH-ED 462</td>
<td>Middle School Philosophy and Organization</td>
<td>3</td>
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**Block 3**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>TCH-ED 315</td>
<td>Assessment and Data Literacy</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 424</td>
<td>Practicum III - Middle and High School</td>
<td>1</td>
</tr>
<tr>
<td>TCH-ED 435</td>
<td>Special Methods of Teaching Science in Middle and High Schools</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 438</td>
<td>Culturally Responsive Strategies for Teaching Diverse Learners</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 470</td>
<td>Philosophy and History of Science and Technology</td>
<td>3</td>
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</table>

**Block 4**

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>TCH-ED 461</td>
<td>Student Teaching In Middle School</td>
<td>9</td>
</tr>
<tr>
<td>TCH-ED 463</td>
<td>Literacy Intervention across the Disciplines</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 495</td>
<td>Seminar - Science</td>
<td>3</td>
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</table>

Total Credits: 60

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCH-ED 408WI</td>
<td>Advanced Foundations</td>
<td>3</td>
</tr>
</tbody>
</table>

Minimum GPA: 3.0

**Total Credits: 120**

**Students interested in a writing intensive experience or going deeper into learning about educational foundations may be interested in the following optional elective:** Advanced Foundations (TCH-ED 408WI)

---

**Social Science**

**Program Specific Recommendations for UMKC General Education Core Coursework**

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<tr>
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<tbody>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
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<td>3</td>
</tr>
</tbody>
</table>

Focus A (Satisfied in Content Area Requirements Below)

Focus B (Satisfied in Content Area Requirements Below)

Focus C (May be Satisfied in Constitution Course Requirements Below)

Focus Elective (May be Satisfied in Content Area Requirements Below)

Total Credits: 18

---

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<tr>
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<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td>3</td>
</tr>
</tbody>
</table>
HONORS 230  Honors American Government (Focus C)  
POL-SCI 210  American Government (Focus C)  

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

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<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 201</td>
<td>Introduction To Economics I (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C and satisfies the Constitution requirement)</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C and satisfies the Constitution requirement)</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 206</td>
<td>World History To 1450 (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 208</td>
<td>World History since 1450 (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C and Satisfies the Constitution Requirement)</td>
<td>3</td>
</tr>
</tbody>
</table>

Geography Elective (Select one of the following):
- GEOG 105  Introduction to the Elements of Geography
- GEOG 150  Introduction to Physical Geography
- GEOG 200  World Geography I
- GEOG 202  World Geography II

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HISTORY 300RH</td>
<td>Special Studies (Colonial Latin America)</td>
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</tr>
<tr>
<td>HISTORY 302</td>
<td>Colonial North America, 1492–1763</td>
<td></td>
</tr>
<tr>
<td>HISTORY 303</td>
<td>The American Revolution, 1763-1789</td>
<td></td>
</tr>
<tr>
<td>HISTORY 304</td>
<td>America, 1783-1828: The National Experience</td>
<td></td>
</tr>
<tr>
<td>HISTORY 306</td>
<td>America, 1850-1877: Civil War and Reconstruction</td>
<td></td>
</tr>
<tr>
<td>HISTORY 356</td>
<td>Rise of the City in the U.S.</td>
<td></td>
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<tr>
<td>HISTORY 357</td>
<td>The American West</td>
<td></td>
</tr>
<tr>
<td>HISTORY 358</td>
<td>History of the American South I</td>
<td></td>
</tr>
<tr>
<td>HISTORY 365A</td>
<td>American Environmental History</td>
<td></td>
</tr>
<tr>
<td>HISTORY 369</td>
<td>Women and Work in Early America</td>
<td></td>
</tr>
<tr>
<td>HISTORY 471</td>
<td>Ancient Greece</td>
<td></td>
</tr>
<tr>
<td>HISTORY 472</td>
<td>Ancient Rome</td>
<td></td>
</tr>
<tr>
<td>HISTORY 462J</td>
<td>Japanese Civilization</td>
<td></td>
</tr>
<tr>
<td>HISTORY 470</td>
<td>Ancient Egypt</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 220</td>
<td>Introduction To Comparative Politics</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 221</td>
<td>Introduction to Comparative Politics and Research</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 313</td>
<td>Politics In The American States</td>
<td></td>
</tr>
<tr>
<td>PSYCH 210</td>
<td>General Psychology</td>
<td></td>
</tr>
</tbody>
</table>
# Bachelor of Arts: Middle School Education

## Program Overview

Bachelor of Arts: Middle School Education is a professional program designed to prepare students for a career in teaching. The program requires a minimum GPA of 3.0 and includes a writing-intensive experience.

## Program Requirements

### Total Credits

Total Credits: 120

### Teacher Education Professional Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TCH-ED 312</td>
<td>Legal and Ethical Aspects of Teaching</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 330</td>
<td>Analyzing Learning Environments in Urban Contexts</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 403</td>
<td>Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 404</td>
<td>Education of the Exceptional Child and Youth</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 420</td>
<td>Adolescent Development</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 422</td>
<td>Practicum I - Middle and High School</td>
<td>1</td>
</tr>
<tr>
<td>Block 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDRD 439</td>
<td>Language &amp; Literacy across the Disciplines</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 314</td>
<td>Cultural Diversity and Teaching English Language Learners</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 385</td>
<td>Teaching and Learning with Technology</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 418</td>
<td>Social Studies in the Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 423</td>
<td>Practicum II - Middle and High School</td>
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<tr>
<td>TCH-ED 462</td>
<td>Middle School Philosophy and Organization</td>
<td>3</td>
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<tr>
<td>Block 3</td>
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<tr>
<td>TCH-ED 315</td>
<td>Assessment and Data Literacy</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 424</td>
<td>Practicum III - Middle and High School</td>
<td>1</td>
</tr>
<tr>
<td>TCH-ED 434</td>
<td>Seminar in Social Science Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 436</td>
<td>Special Methods of Teaching Social Science in Middle and High Schools</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 438</td>
<td>Culturally Responsive Strategies for Teaching Diverse Learners</td>
<td>3</td>
</tr>
<tr>
<td>Block 4</td>
<td></td>
<td></td>
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<tr>
<td>TCH-ED 461</td>
<td>Student Teaching In Middle School</td>
<td>9</td>
</tr>
<tr>
<td>TCH-ED 463</td>
<td>Literacy Intervention across the Disciplines</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 496</td>
<td>Seminar - Social Science</td>
<td>3</td>
</tr>
</tbody>
</table>

### General Electives

General Electives: 12

Students interested in a writing intensive experience or going deeper into learning about educational foundations may be interested in the following optional elective: Advanced Foundations (TCH-ED 408WI)

Minimum GPA: 3.0

Total Credits: 120

## Graduation Requirement for Middle School Education

- Completion of at least 120 credit hours including all course work listed (although actual program may require more than 120 credits)
- Completion of the RooWriter
- Successful completion of all Missouri state certification requirements/exams

## Tools for Planning and Filling Academic Requirements

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planningdegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student's officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.
UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Arts: Secondary Education

Students interested in completing this program at UMKC must be admitted to the Teacher Education Professional Program no later than Fall 2020 and must complete the program by May 2022.

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

• 1. Understand how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and designs and implements developmentally appropriate and challenging learning experiences.

• 2. Understand individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.

• 3. Work with others to create environments that support individual and collaborative learning, and that encourage positive social interaction, active engagement in learning, and self-motivation.

• 4. Understand the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make these aspects of the discipline accessible and meaningful for learners to assure mastery of the content.

• 5. Understand how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues.

• 6. Understand and use multiple methods of assessment to engage learners in their own growth, to monitor learner progress, and to guide the teacher's and learner's decision making.

• 7. Plan instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of learners and the community context.

• 8. Understand and use a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways.

• 9. Engage in ongoing professional learning and use evidence to continually evaluate their practice, particularly the effects of their choices and actions on others (learners, families, other professionals, and the community), and adapt practice to meet the needs of each learner.

• 10. Seek appropriate leadership roles and opportunities to take responsibility for student learning, to collaborate with learners, families, colleagues, other school professionals, and community members to ensure learner growth, and to advance the profession.

The School of Education subscribes to the Missouri Standards for the Preparation of Educators (MoSPE) and the Missouri Teacher Standards which can be found on the website of the Missouri Department of Elementary and Secondary Education - dese.mo.gov (http://dese.mo.gov).

Program Requirements

Teacher Education Admission Requirements (p. 1078)
The Bachelor of Arts in Secondary Education includes professional coursework in teacher education as well as coursework in a selected content area corresponding to the desired teacher certification.

- Art (K-12)
- English
- Foreign Languages
  - Foreign Language-French
  - Foreign Language-German
  - Foreign Language-Spanish
- Mathematics
- Sciences
  - Biology; Unified Science-Biology
  - Chemistry; Unified Science-Chemistry
  - Earth Science; Unified Science Earth Science
  - Physics; Unified Science-Physics
- Social Science

Note: Music Education majors should check degree requirements with the Conservatory of Music and Dance.

Typically, between 30 and 50 hours of content area coursework is required to attain the subject major/certification. Students must consult with an advisor to determine specific requirements. Students who already have a bachelor's degree may be required to complete content area requirements that were not part of their prior degree program in addition to the professional education requirements.

Completion of this program leads to a Bachelor of Arts degree in the School of Education. Contingent upon satisfactory completion of all degree coursework, key assessments, and state testing requirements, teacher candidates may be eligible for certification upon recommendation of the Teacher Education faculty.

A 3.00 cumulative GPA, 3.00 content area GPA and 3.00 professional education GPA is required at completion of the program. Grades of C (2.00) or better are required in all content area and education classes. Prospective students and teacher candidates should meet each semester with an academic advisor to determine specific course requirements.

The School of Education requires all teacher candidates to have current professional liability insurance during all field experiences and student teaching. Verification of current professional liability insurance must be provided to the School of Education Student Services office. Insurance can be obtained through “student membership” in an educational organization (e.g., MSTA or NEA) that provides such insurance or purchased coverage through an independent insurance agent.

Candidates admitted to the Professional Teacher Education Program must uphold all academic and social regulations and policies established by the School of Education. Candidates are subject to any Missouri legislative action or State Board of Education policy that may become effective during the lifetime of this catalog. The responsibility of the School of Education is to recommend qualified candidates for licensure to the state and to ensure our candidates meet or exceed these requirements. While the degree programs outlined in the catalog are aligned with state requirements, certification is dependent on both the degree requirements and successful completion of all state assessments required by the Missouri State Department of Elementary and Secondary Education. Additionally, candidates must successfully complete program Key Assessments each semester to continue in the program.

NOTE: During the student teaching semester, teacher candidates follow the school district’s calendar, not the UMKC academic/semester calendar. Teacher candidates begin student teaching according to the school district’s calendar and not the first day of the UMKC academic/semester calendar.

### Art Emphasis Area

**Program Specific Recommendations for UMKC General Education Core Coursework**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Focus A (Satisfied in program requirements below)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Focus B</td>
<td></td>
</tr>
</tbody>
</table>
Focus C (May be satisfied by Constitution requirement)
Focus Elective (Satisfied in program requirements below)
Total Credits 21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions."

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) ¹</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 3

¹ Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

Art (K-12) Content Area Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 112</td>
<td>Foundation Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 114</td>
<td>Foundation Digital Design (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td>ART 121</td>
<td>Foundation 2D Design (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td>ART 131</td>
<td>Foundation 3D Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 204</td>
<td>Digital Video and Motion Design I</td>
<td>3</td>
</tr>
<tr>
<td>ART 206</td>
<td>Photography I</td>
<td>3</td>
</tr>
<tr>
<td>ART 212</td>
<td>Intermediate Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 214</td>
<td>Ceramics I</td>
<td>3</td>
</tr>
<tr>
<td>ART 218</td>
<td>Graphic Design I</td>
<td>3</td>
</tr>
<tr>
<td>ART 221</td>
<td>Painting I</td>
<td>3</td>
</tr>
<tr>
<td>ART 224</td>
<td>Print Media I</td>
<td>3</td>
</tr>
<tr>
<td>ART 230</td>
<td>Fibers I</td>
<td>3</td>
</tr>
<tr>
<td>ART-HIST 202</td>
<td>From Michelangelo to Modernism (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td>ART-HIST 303</td>
<td>World Currents of Contemporary Art (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td>ART-HIST 315</td>
<td>Arts Of African and New World Cultures (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td>ART-HIST 319</td>
<td>Asian Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 405</td>
<td>Practices in the Visual Arts Classroom</td>
<td>3</td>
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</tbody>
</table>

Sculpture requirement (not offered at UMKC).

Total Credits 54
### Teacher Education Professional Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Block 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TCH-ED 312</td>
<td>Legal and Ethical Aspects of Teaching</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 330</td>
<td>Analyzing Learning Environments in Urban Contexts</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 403</td>
<td>Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 404</td>
<td>Education of the Exceptional Child and Youth</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 420</td>
<td>Adolescent Development</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 422</td>
<td>Practicum I - Middle and High School (or TCH-ED 397)</td>
<td>1</td>
</tr>
<tr>
<td><strong>Block 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDRD 439</td>
<td>Language &amp; Literacy across the Disciplines</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 314</td>
<td>Cultural Diversity and Teaching English Language Learners</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 385</td>
<td>Teaching and Learning with Technology</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 423</td>
<td>Practicum II - Middle and High School</td>
<td>1</td>
</tr>
<tr>
<td><strong>Block 3</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TCH-ED 315</td>
<td>Assessment and Data Literacy</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 402</td>
<td>Integrated Arts</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 424</td>
<td>Practicum III - Middle and High School</td>
<td>1</td>
</tr>
<tr>
<td>TCH-ED 438</td>
<td>Culturally Responsive Strategies for Teaching Diverse Learners</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 463</td>
<td>Literacy Intervention across the Disciplines</td>
<td>3</td>
</tr>
<tr>
<td><strong>Block 4</strong></td>
<td></td>
<td></td>
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<tr>
<td>TCH-ED 437 &amp; TCH-ED 419</td>
<td>Student Teaching in High School and Student Teaching in Elementary School</td>
<td>9</td>
</tr>
<tr>
<td>TCH-ED 491</td>
<td>Seminar - Art Education</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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<td>51</td>
</tr>
</tbody>
</table>

Students interested in a writing intensive experience or going deeper into learning about educational foundations may be interested in the following optional elective: Advanced Foundations (TCH-ED 408WI)

**Minimum GPA: 3.0**

**Total Credits: 129**

### English Emphasis Area

**Program Specific Recommendations for UMKC General Education Core Coursework**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
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<tr>
<td>Anchor II</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>(Focus A) (may be satisfied in program requirements)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>(Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>(Focus C) (may be satisfied by Constitution requirement)</td>
<td>3</td>
</tr>
<tr>
<td>Focus Elective</td>
<td>(may be satisfied in program requirements)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td>27</td>
</tr>
</tbody>
</table>

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Choose one of the following:</strong></td>
<td>3</td>
</tr>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td></td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
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</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

English (9-12) Content Area Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH 311</td>
<td>American Literature I</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 321</td>
<td>American Literature II</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 323</td>
<td>Shakespeare</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Composition &amp; Rhetoric (Select at least 3 of the following):</strong></td>
<td>9</td>
</tr>
<tr>
<td>ENGLISH 305WI</td>
<td>Theory And Practice Of Composition</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 307WI</td>
<td>Language, Literacy, Power</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 308</td>
<td>Rhetorics of New Media</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 309WI</td>
<td>Rhetorics of Public Memory</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 342WI</td>
<td>Women And Rhetoric</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 445</td>
<td>History And Principles Of Rhetoric</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Study of English Language (Select 1 of the following):</strong></td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 310</td>
<td>Introduction To Linguistics/Language Science</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 320</td>
<td>Structure Of English</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 330</td>
<td>History Of The English Language</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 470</td>
<td>Introduction To Descriptive Linguistics</td>
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</tr>
<tr>
<td></td>
<td><strong>English and/or World Literature (Select one of the following):</strong></td>
<td>3</td>
</tr>
<tr>
<td>CLASSICS 210</td>
<td>Foundations Of Ancient World Literature I (Focus A)</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 119</td>
<td>Myth and Literature (Focus A)</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 207</td>
<td>World Literature in English (Focus A)</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 317</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 326</td>
<td>Modern And Contemporary Irish Literature</td>
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</tr>
<tr>
<td>ENGLISH 327</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENGLISH 340AWI</td>
<td>Classical Literature in Translation</td>
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</tr>
<tr>
<td>ENGLISH 344WI</td>
<td>Women &amp; Literary Culture: Genre Focus</td>
<td></td>
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<tr>
<td>ENGLISH 434</td>
<td>Postcolonial Literature</td>
<td></td>
</tr>
</tbody>
</table>
Elective English Credits (Choose at least 1 of the following):  

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>BLKS 334</td>
<td>From Field Shout to Hip Hop: African American Poetic Traditions</td>
</tr>
<tr>
<td>BLKS 337</td>
<td>The Civil Rights Movement in African American Literature</td>
</tr>
<tr>
<td>ENGLISH 278</td>
<td>Asian American Literature (Focus A)</td>
</tr>
<tr>
<td>ENGLISH 331</td>
<td>African American Literature I</td>
</tr>
<tr>
<td>ENGLISH 332WI</td>
<td>African American Novel</td>
</tr>
<tr>
<td>ENGLISH 333</td>
<td>African American Literature II</td>
</tr>
<tr>
<td>ENGLISH 367</td>
<td>Introduction to Latinx Literature</td>
</tr>
<tr>
<td>ENGLISH 378</td>
<td>Asian American Literature</td>
</tr>
<tr>
<td>ENGLISH 408</td>
<td>Harlem Renaissance</td>
</tr>
<tr>
<td>ENGLISH 410</td>
<td>Black Women Writers</td>
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</table>

Total Credits: 27

**Teacher Education Professional Coursework**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td><strong>Block 1</strong></td>
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</tr>
<tr>
<td>TCH-ED 312</td>
<td>Legal and Ethical Aspects of Teaching</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 330</td>
<td>Analyzing Learning Environments in Urban Contexts</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 403</td>
<td>Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 404</td>
<td>Education of the Exceptional Child and Youth</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 420</td>
<td>Adolescent Development</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 422</td>
<td>Practicum I - Middle and High School</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Block 2</strong></td>
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<tr>
<td>EDRD 439</td>
<td>Language &amp; Literacy across the Disciplines</td>
<td>3</td>
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<tr>
<td>TCH-ED 202</td>
<td>Literature for Adolescents</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 314</td>
<td>Cultural Diversity and Teaching English Language Learners</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 385</td>
<td>Teaching and Learning with Technology</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 396</td>
<td>English Language Study for Middle and High School Teachers</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 423</td>
<td>Practicum II - Middle and High School</td>
<td>1</td>
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<tr>
<td></td>
<td><strong>Block 3</strong></td>
<td></td>
</tr>
<tr>
<td>TCH-ED 315</td>
<td>Assessment and Data Literacy</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 424</td>
<td>Practicum III - Middle and High School</td>
<td>1</td>
</tr>
<tr>
<td>TCH-ED 432</td>
<td>Special Methods of Teaching English in Middle and High Schools</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 438</td>
<td>Culturally Responsive Strategies for Teaching Diverse Learners</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 463</td>
<td>Literacy Intervention across the Disciplines</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 482</td>
<td>Seminar in Teaching and Evaluating Writing</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Block 4</strong></td>
<td></td>
</tr>
<tr>
<td>TCH-ED 437</td>
<td>Student Teaching in High School</td>
<td>9</td>
</tr>
<tr>
<td>TCH-ED 494</td>
<td>Seminar - English/Language Arts</td>
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Total Credits: 60

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td></td>
<td><strong>General Electives</strong></td>
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<td><strong>Total Credit Hours: 120</strong></td>
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</tbody>
</table>

Minimum GPA: 3.0
Foreign Languages-French Emphasis Area

Program Specific Recommendations for UMKC General Education Core Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus C (May be satisfied by Constitution requirement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>27</td>
</tr>
</tbody>
</table>

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Choose one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td></td>
</tr>
<tr>
<td>HISTORY 101</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

Foreign Language-French (K-12) Content Area Coursework

Students need to take thirty-six (36) semester hours in French and must consult with the Foreign Language Department to determine the required courses that demonstrate the proficiency in the areas of listening comprehension, speaking, reading, and writing. Hours completed must include 33 hours of upper-level courses with no more than six in culture.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRENCH 221</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>FRENCH 315</td>
<td>Intermediate Composition and Conversation</td>
<td>3</td>
</tr>
<tr>
<td>FRENCH 325</td>
<td>Intermediate Conversation and Composition</td>
<td>3</td>
</tr>
<tr>
<td>FRENCH 415</td>
<td>Advanced Conversation and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>Culture and Literature Electives (8 courses):</td>
<td></td>
<td>24</td>
</tr>
</tbody>
</table>
Select 6 hours (2 courses) from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>FRENCH 350</td>
<td>French Civilization I</td>
</tr>
<tr>
<td>FRENCH 352</td>
<td>French Civilization II: Contemporary French Civilization</td>
</tr>
<tr>
<td>FRENCH 354</td>
<td>French Civilization III: Lyon, Crossroads of France and Europe (Focus A)</td>
</tr>
</tbody>
</table>

Select at least 18 hours (6 courses) from the options below:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRENCH 301</td>
<td>Introduction to French Literature (Focus A)</td>
</tr>
<tr>
<td>FRENCH 303</td>
<td>Masterpieces of French Literature I</td>
</tr>
<tr>
<td>FRENCH 304</td>
<td>Masterpieces Of French Literature II (Focus A)</td>
</tr>
<tr>
<td>FRENCH 380</td>
<td>Special Topics</td>
</tr>
<tr>
<td>FRENCH 414</td>
<td>Medieval Literature</td>
</tr>
<tr>
<td>FRENCH 417</td>
<td>16th-Century French Literature</td>
</tr>
<tr>
<td>FRENCH 424</td>
<td>19th-Century French Literature</td>
</tr>
<tr>
<td>FRENCH 426</td>
<td>20th-Century French Literature</td>
</tr>
<tr>
<td>FRENCH 440</td>
<td>Medieval Romance</td>
</tr>
<tr>
<td>FRENCH 443</td>
<td>Early French Theater</td>
</tr>
<tr>
<td>FRENCH 444</td>
<td>Renaissance Poetry</td>
</tr>
<tr>
<td>FRENCH 452</td>
<td>Medieval Poetry</td>
</tr>
<tr>
<td>FRENCH 457</td>
<td>20th Century French Narrative</td>
</tr>
<tr>
<td>FRENCH 463</td>
<td>19th-Century French Fiction</td>
</tr>
<tr>
<td>FRENCH 472</td>
<td>Francophone Studies</td>
</tr>
<tr>
<td>FRENCH 474</td>
<td>Orientalism and Literature</td>
</tr>
<tr>
<td>FRENCH 480</td>
<td>Special Topics</td>
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</table>

Total Credits: 36

### Teacher Education Professional Coursework

<table>
<thead>
<tr>
<th>Block</th>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TCH-ED 312</td>
<td>Legal and Ethical Aspects of Teaching</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TCH-ED 330</td>
<td>Analyzing Learning Environments in Urban Contexts</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TCH-ED 403</td>
<td>Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TCH-ED 404</td>
<td>Education of the Exceptional Child and Youth</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TCH-ED 420</td>
<td>Adolescent Development</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TCH-ED 422</td>
<td>Practicum I - Middle and High School</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or TCH-ED 397</td>
<td>Practicum I - Elementary</td>
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<tr>
<td></td>
<td>EDRD 439</td>
<td>Language &amp; Literacy across the Disciplines</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TCH-ED 314</td>
<td>Cultural Diversity and Teaching English Language Learners</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TCH-ED 385</td>
<td>Teaching and Learning with Technology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TCH-ED 423</td>
<td>Practicum II - Middle and High School</td>
<td>1</td>
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<td></td>
<td>or TCH-ED 398</td>
<td>Practicum II – Elementary</td>
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<tr>
<td>2</td>
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<tr>
<td></td>
<td>FRN-LNG 494</td>
<td>Methods of Teaching Foreign Languages</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>TCH-ED 315</td>
<td>Assessment and Data Literacy</td>
<td>3</td>
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<td></td>
<td>TCH-ED 424</td>
<td>Practicum III - Middle and High School</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or TCH-ED 497</td>
<td>Teaching Internship</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TCH-ED 438</td>
<td>Culturally Responsive Strategies for Teaching Diverse Learners</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TCH-ED 463</td>
<td>Literacy Intervention across the Disciplines</td>
<td>3</td>
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<tr>
<td></td>
<td>FRN-LNG 459</td>
<td>Foreign Languages Teacher Education Seminar</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>TCH-ED 437</td>
<td>Student Teaching in High School</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>or TCH-ED 419</td>
<td>Student Teaching in Elementary School</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FRN-LNG 459</td>
<td>Foreign Languages Teacher Education Seminar</td>
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</table>

Total Credits: 51
K-12 students must complete at least one Middle & High School practicum for certification.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>3</td>
</tr>
</tbody>
</table>

Students interested in a writing intensive experience or going deeper into learning about educational foundations may be interested in the following optional elective: Advanced Foundations (TCH-ED 408WI)

Minimum GPA: 3.0

Total Credit Hours: 120

**Foreign Languages-German Emphasis Area**

**Program Specific Recommendations for UMKC General Education Core Coursework**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
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<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
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</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
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<tr>
<td>Focus B</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus C (may be satisfied by Constitution requirement)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus Elective</td>
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</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>27</td>
</tr>
</tbody>
</table>

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
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</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
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</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
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</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.
Foreign Language-German Content Area Coursework

Students must take thirty-six (36) semester hours in German and consult with the Foreign Language Department to determine the required courses that demonstrate the proficiency in the areas of listening comprehension, speaking, reading, and writing. Hours completed must include 33 hours of upper-level courses with no more than six in culture.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERMAN 221</td>
<td>Second-Year German II</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 315</td>
<td>Intermediate Conversation and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 325</td>
<td>Intermediate Conversation and Composition II</td>
<td>3</td>
</tr>
<tr>
<td>GERMAN 415</td>
<td>Advanced Conversation and Composition I</td>
<td>3</td>
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</table>

Culture and Literature Electives (8 courses) 24

Select 6 hours (2 courses) from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERMAN 306</td>
<td>Aspects Of Contemporary German Culture (Conducted In German)</td>
</tr>
<tr>
<td>GERMAN 314CC</td>
<td>Weimar Culture: Gender and Modernity in Central Europe</td>
</tr>
<tr>
<td>GERMAN 410</td>
<td>Music in German Culture</td>
</tr>
</tbody>
</table>

Select at least 18 hours (6 courses) from the options below:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERMAN 301</td>
<td>Introduction to Literary Studies</td>
</tr>
<tr>
<td>GERMAN 305</td>
<td>Current Events in Germany</td>
</tr>
<tr>
<td>GERMAN 307</td>
<td>From the Middle Ages to the Baroque</td>
</tr>
<tr>
<td>GERMAN 308</td>
<td>From the Enlightenment Through the 19th Century</td>
</tr>
<tr>
<td>GERMAN 310</td>
<td>Classical Period Of German Literature</td>
</tr>
<tr>
<td>GERMAN 340</td>
<td>Society and Literature in 20th-Century Germany</td>
</tr>
<tr>
<td>GERMAN 341</td>
<td>German Film (Focus A)</td>
</tr>
<tr>
<td>GERMAN 342</td>
<td>Contemporary German Film 1980</td>
</tr>
<tr>
<td>GERMAN 380</td>
<td>Special Topics</td>
</tr>
<tr>
<td>GERMAN 401</td>
<td>Bertolt Brecht</td>
</tr>
<tr>
<td>GERMAN 411</td>
<td>Romanticism</td>
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<tr>
<td>GERMAN 412</td>
<td>The German Novelle</td>
</tr>
<tr>
<td>GERMAN 414</td>
<td>German Lyric Poetry</td>
</tr>
<tr>
<td>GERMAN 421</td>
<td>19Th-Century Drama</td>
</tr>
<tr>
<td>GERMAN 425</td>
<td>Advanced Conversation and Composition II</td>
</tr>
<tr>
<td>GERMAN 426</td>
<td>20th-Century German Literature</td>
</tr>
<tr>
<td>GERMAN 453</td>
<td>Women’s Voices in Germany and Austria</td>
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<td>GERMAN 480</td>
<td>Special Topics</td>
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</table>

Total Credits 36

Teacher Education Professional Coursework

<table>
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Block 1

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<tr>
<td>TCH-ED 312</td>
<td>Legal and Ethical Aspects of Teaching</td>
<td>3</td>
</tr>
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<td>TCH-ED 330</td>
<td>Analyzing Learning Environments in Urban Contexts</td>
<td>3</td>
</tr>
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<td>TCH-ED 403</td>
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<td>Education of the Exceptional Child and Youth</td>
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<td>TCH-ED 420</td>
<td>Adolescent Development</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 422</td>
<td>Practicum I - Middle and High School</td>
<td>1</td>
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<tr>
<td>or TCH-ED 397</td>
<td>Practicum I - Elementary</td>
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Block 2

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<tr>
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<tbody>
<tr>
<td>EDRD 439</td>
<td>Language &amp; Literacy across the Disciplines</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 314</td>
<td>Cultural Diversity and Teaching English Language Learners</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 385</td>
<td>Teaching and Learning with Technology</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 423</td>
<td>Practicum II - Middle and High School</td>
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<tr>
<td>or TCH-ED 398</td>
<td>Practicum II – Elementary</td>
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Block 3
Bachelor of Arts: Secondary Education

TCH-ED 315  Assessment and Data Literacy  3
TCH-ED 424  Practicum III - Middle and High School 1
or TCH-ED 497  Teaching Internship  1
TCH-ED 438  Culturally Responsive Strategies for Teaching Diverse Learners  3
TCH-ED 463  Literacy Intervention across the Disciplines  3
FRN-LNG 494  Methods of Teaching Foreign Languages  3

Block 4
TCH-ED 437  Student Teaching in High School  9
or TCH-ED 419  Student Teaching in Elementary School  1
FRN-LNG 459  Foreign Languages Teacher Education Seminar  3

Total Credits  51

1  K-12 students must complete at least one Middle & High School practicum for certification.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>General Electives</td>
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</table>

Students interested in a writing intensive experience or going deeper into learning about educational foundations may be interested in the following optional elective: Advanced Foundations (TCH-ED 408WI)

Minimum GPA: 3.0

Total Credit Hours: 120

Foreign Languages-Spanish Emphasis Area

Program Specific Recommendations for UMKC General Education Core Coursework

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Anchor I</td>
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<tr>
<td>Anchor II</td>
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</tr>
<tr>
<td>Anchor III</td>
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<td>3</td>
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<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus C</td>
<td>(may be satisfied by Constitution requirement)</td>
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<tr>
<td>Focus Elective</td>
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<tr>
<td>Total Credits</td>
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<td>27</td>
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</tbody>
</table>

1  See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions."

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Choose one of the following:</td>
<td></td>
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<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) 1</td>
<td></td>
</tr>
</tbody>
</table>
Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

**Foreign Language-Spanish Content Area Coursework**

Students must take thirty-six (36) semester hours in Spanish and consult with the Foreign Language Department to determine the required courses that demonstrate the proficiency in the areas of listening comprehension, speaking, reading, and writing. Hours completed must include 33 hours of upper-level courses with no more than six in culture.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SPANISH 221</td>
<td>Second Year Spanish II</td>
<td>3</td>
</tr>
<tr>
<td>SPANISH 315</td>
<td>Intermediate Conversation And Composition I</td>
<td>3</td>
</tr>
<tr>
<td>SPANISH 325</td>
<td>Intermediate Conversation And Composition II</td>
<td>3</td>
</tr>
<tr>
<td>SPANISH 415</td>
<td>Advanced Conversation And Composition I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Culture and Literature Electives (8 courses)</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Select 6 hours (2 courses) from the following:</td>
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</tr>
<tr>
<td></td>
<td>SPANISH 350 Continental Spanish Civilization</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SPANISH 351 Latin American Civilization</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SPANISH 365 The Search For Mexican Identity</td>
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<tr>
<td></td>
<td>Select at least 18 hours (6 courses) from the options below:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SPANISH 301 Introduction To Literary Studies</td>
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<tr>
<td></td>
<td>SPANISH 373 History Of Spanish Literature I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SPANISH 374 History Of Spanish Literature II</td>
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<td></td>
<td>SPANISH 380 Special Topics</td>
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<tr>
<td></td>
<td>SPANISH 383 Introduction To Spanish American Literature I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SPANISH 384 Introduction To Spanish American Literature II</td>
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<tr>
<td></td>
<td>SPANISH 403 History of the Spanish Language</td>
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<tr>
<td></td>
<td>SPANISH 414 Early 20th Century Peninsular Literature: From the Generation of 1898 to Surrealism</td>
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<td></td>
<td>SPANISH 416 Medieval Spanish Literature</td>
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<td></td>
<td>SPANISH 417 Spanish-American Lyric Poetry</td>
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<tr>
<td></td>
<td>SPANISH 418 Romantic Movement In Spain</td>
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<tr>
<td></td>
<td>SPANISH 420 Cervantes' Don Quixote, Part I</td>
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<tr>
<td></td>
<td>SPANISH 421 Cervantes' Don Quixote, Part II</td>
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<td></td>
<td>SPANISH 425 Advanced Conversation And Composition II</td>
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<td></td>
<td>SPANISH 426 Golden Age Drama</td>
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<td></td>
<td>SPANISH 427 Pre-Columbian And Spanish Colonial Literature</td>
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<td></td>
<td>SPANISH 428 Contemporary Spanish Poetry</td>
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<td></td>
<td>SPANISH 429 The Novel Of The Mexican Revolution</td>
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<td></td>
<td>SPANISH 430 Spanish Mysticism</td>
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<tr>
<td></td>
<td>SPANISH 431 The Golden Age Novel</td>
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<td></td>
<td>SPANISH 432 Pastoral Literature</td>
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<tr>
<td></td>
<td>SPANISH 433 Cervantes' Exemplary Novels</td>
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<tr>
<td></td>
<td>SPANISH 434 The Picaresque Novel</td>
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<tr>
<td></td>
<td>SPANISH 435 Peninsular Poetry</td>
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<td></td>
<td>SPANISH 450 Modern Classics Of Latin American Literature</td>
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</tbody>
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### Teacher Education Professional Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tr>
<td><strong>Block 1</strong></td>
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<tr>
<td>TCH-ED 312</td>
<td>Legal and Ethical Aspects of Teaching</td>
<td>3</td>
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<tr>
<td>TCH-ED 330</td>
<td>Analyzing Learning Environments in Urban Contexts</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 403</td>
<td>Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 404</td>
<td>Education of the Exceptional Child and Youth</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 420</td>
<td>Adolescent Development</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 422</td>
<td>Practicum I - Middle and High School (^1) or TCH-ED 397</td>
<td>1</td>
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<tr>
<td>TCH-ED 423</td>
<td>Practicum II - Middle and High School (^1) or TCH-ED 398</td>
<td>1</td>
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<tr>
<td><strong>Block 2</strong></td>
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<tr>
<td>EDRD 439</td>
<td>Language &amp; Literacy across the Disciplines</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 314</td>
<td>Cultural Diversity and Teaching English Language Learners</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 385</td>
<td>Teaching and Learning with Technology</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 423</td>
<td>Practicum II - Middle and High School (^1) or TCH-ED 398</td>
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<td><strong>Block 3</strong></td>
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<tr>
<td>TCH-ED 315</td>
<td>Assessment and Data Literacy</td>
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<td>TCH-ED 424</td>
<td>Practicum III - Middle and High School (^1) or TCH-ED 497</td>
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<td>or TCH-ED 497</td>
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<tr>
<td>TCH-ED 438</td>
<td>Culturally Responsive Strategies for Teaching Diverse Learners</td>
<td>3</td>
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<tr>
<td>TCH-ED 463</td>
<td>Literacy Intervention across the Disciplines</td>
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<tr>
<td>FRN-LNG 494</td>
<td>Methods of Teaching Foreign Languages</td>
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<td><strong>Block 4</strong></td>
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<tr>
<td>TCH-ED 437</td>
<td>Student Teaching in High School</td>
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<tr>
<td>or TCH-ED 419</td>
<td>Student Teaching in Elementary School</td>
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</tr>
<tr>
<td>FRN-LNG 459</td>
<td>Foreign Languages Teacher Education Seminar</td>
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**Total Credits**: 51

\(^1\) K-12 students must complete at least one Middle & High School practicum for certification.

### General Electives

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
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<td>General Electives</td>
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</table>

Students interested in a writing intensive experience or going deeper into learning about educational foundations may be interested in the following optional elective: Advanced Foundations (TCH-ED 408WI)

**Minimum GPA**: 3.0

**Total Hours**: 120

### Mathematics Emphasis Area

#### Program Specific Recommendations for UMKC General Education Core Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>Anchor I (^1)</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
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<tr>
<td>Anchor II (^1)</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor III (^1)</td>
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</tbody>
</table>
DISC 300  Discourse III: Civic and Community Engagement (Speech and Writing)  3
Focus A  1  3
Focus B (Satisfied in Program Requirements Below)  
Focus C (may be satisfied by Constitution requirement)  3
Focus Elective  3
Total Credits  24

1  See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement
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Courses at UMKC that satisfy this state requirement are:

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<td>HISTORY 360R</td>
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<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
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<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
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</table>

Total Credits  3

1  Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
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- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

Mathematics Content Area Coursework

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<tbody>
<tr>
<td>MATH 120</td>
<td>Precalculus (Focus B)</td>
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<tr>
<td>MATH 210</td>
<td>Calculus I (Focus B)</td>
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<tr>
<td>MATH 220</td>
<td>Calculus II</td>
<td>4</td>
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<tr>
<td>MATH 250</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 300</td>
<td>Linear Algebra I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 424</td>
<td>Mathematics for Secondary Teachers: Geometry</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 444</td>
<td>Modern Geometries</td>
<td></td>
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<tr>
<td>STAT 235</td>
<td>Elementary Statistics (Focus B)</td>
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</table>

Select 1 computer programming language course:  3

<table>
<thead>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>COMP-SCI 101</td>
<td>Problem Solving and Programming I</td>
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<tr>
<td>COMP-SCI 111</td>
<td>Introduction to Computing</td>
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<tr>
<td>COMP-SCI 191</td>
<td>Discrete Structures I</td>
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<td>EDUC 402R</td>
<td>Algebraic Thinking for Teachers</td>
<td>3</td>
</tr>
<tr>
<td>MATH 301</td>
<td>On Solid Ground: Sets and Proof</td>
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</table>

Additional 12 hours from at least three of the five following categories:  12

History of Mathematics

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MATH 464WI</td>
<td>History Of Mathematics</td>
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</tbody>
</table>
Structure of the Real Number System

MATH 204  Mathematics for Teachers: Mathematical Immersion

Calculus Sequence

MATH 244  Mathematics for Teachers: Calculus
MATH 345  Ordinary Differential Equations
MATH 402  Advanced Analysis I

Probability and Statistics

STAT 436  Introduction To Mathematical Statistics I

Linear Algebra

MATH 410  Modern Algebra
MATH 420  Linear Algebra II

Total Credits 47

Teacher Education Professional Coursework

<table>
<thead>
<tr>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td></td>
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</tr>
<tr>
<td>TCH-ED 312</td>
<td>Legal and Ethical Aspects of Teaching</td>
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<td>TCH-ED 330</td>
<td>Analyzing Learning Environments in Urban Contexts</td>
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<td>TCH-ED 403</td>
<td>Educational Psychology</td>
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<td>TCH-ED 404</td>
<td>Education of the Exceptional Child and Youth</td>
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<tr>
<td>TCH-ED 420</td>
<td>Adolescent Development</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 422</td>
<td>Practicum I - Middle and High School</td>
<td>1</td>
</tr>
</tbody>
</table>

| Block 2  |                                                 |         |
| EDRD 439 | Language & Literacy across the Disciplines     | 3       |
| TCH-ED 314 | Cultural Diversity and Teaching English Language Learners | 3       |
| TCH-ED 385 | Teaching and Learning with Technology          | 3       |
| TCH-ED 423 | Practicum II - Middle and High School          | 1       |

| Block 3  |                                                 |         |
| TCH-ED 315 | Assessment and Data Literacy                   | 3       |
| TCH-ED 424 | Practicum III - Middle and High School        | 1       |
| TCH-ED 433 | Special Methods of Teaching Mathematics in Middle and High Schools | 3       |
| TCH-ED 438 | Culturally Responsive Strategies for Teaching Diverse Learners | 3       |
| TCH-ED 463 | Literacy Intervention across the Disciplines  | 3       |

| Block 4  |                                                 |         |
| TCH-ED 437 | Student Teaching in High School                | 9       |
| TCH-ED 493 | Seminar - Mathematics                          | 3       |

Total Credits 51

Students interested in a writing intensive experience or going deeper into learning about educational foundations may be interested in the following optional elective: Advanced Foundations (TCH-ED 408WI)

Minimum GPA: 3.0

Total Credit Hours: 125

Biology Emphasis Area

Program Specific Recommendations for UMKC General Education Core Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Anchor I ¹</td>
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<tr>
<td>Anchor II ¹</td>
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<tr>
<td>Anchor III ¹</td>
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<td>3</td>
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<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
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<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
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</table>
DISC 300  Discourse III: Civic and Community Engagement (Speech and Writing)  3
Focus A  3
Focus B (Satisfied in Program Requirements Below)
Focus C (May be satisfied by Constitution requirement)
Focus Elective (Satisfied in Program Requirements Below)
Total Credits  21

1  See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

**Constitution Course Requirement**

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

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<td>CJC 364</td>
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<td>U.S. History to 1877 (Focus C)</td>
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</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
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<td>Honors American Government (Focus C)</td>
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</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits  3

1  Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

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- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

**Biology (Single) Content Area Coursework**

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<tr>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOLOGY 108L &amp; BIOLOGY 108</td>
<td>General Biology I Laboratory and General Biology I (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>BIOLOGY 109L &amp; BIOLOGY 109</td>
<td>General Biology II Laboratory and General Biology II (Focus B)</td>
<td>4</td>
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<tr>
<td>BIOLOGY 202</td>
<td>Cell Biology</td>
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<td>Genetics</td>
<td>3</td>
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<td>BIOLOGY 303 or BIOLOGY 308</td>
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<td>3</td>
</tr>
<tr>
<td>BIOLOGY 346 or BIOLOGY 427</td>
<td>Plant Biology or Plant Physiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 405</td>
<td>Introduction to Evolution</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 211L &amp; CHEM 211</td>
<td>Experimental General Chemistry I and General Chemistry I (Focus B)</td>
<td>5</td>
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<tr>
<td>ENV-SCI 110L &amp; ENV-SCI 110R</td>
<td>Understanding the Earth Laboratory and Understanding the Earth: Introduction to Environmental Science and Laboratory (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td>GEOLOGY 220</td>
<td>General Geology (Focus B)</td>
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<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (Focus B)</td>
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PHYSICS 210 General Physics I (Focus B) 4

Total Credits 43

**Teacher Education Professional Coursework**

<table>
<thead>
<tr>
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<tr>
<td>Block 1</td>
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<tr>
<td>TCH-ED 312</td>
<td>Legal and Ethical Aspects of Teaching</td>
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<td>Educational Psychology</td>
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<td>Education of the Exceptional Child and Youth</td>
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<td>TCH-ED 420</td>
<td>Adolescent Development</td>
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</tr>
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<td>TCH-ED 422</td>
<td>Practicum I - Middle and High School</td>
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<td>Block 2</td>
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<tr>
<td>EDRD 439</td>
<td>Language &amp; Literacy across the Disciplines</td>
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<tr>
<td>TCH-ED 314</td>
<td>Cultural Diversity and Teaching English Language Learners</td>
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<tr>
<td>TCH-ED 385</td>
<td>Teaching and Learning with Technology</td>
<td>3</td>
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<tr>
<td>TCH-ED 423</td>
<td>Practicum II - Middle and High School</td>
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<td>Block 3</td>
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<td></td>
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<td>TCH-ED 315</td>
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<td>TCH-ED 424</td>
<td>Practicum III - Middle and High School</td>
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<tr>
<td>TCH-ED 435</td>
<td>Special Methods of Teaching Science in Middle and High Schools</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 438</td>
<td>Culturally Responsive Strategies for Teaching Diverse Learners</td>
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<td>TCH-ED 463</td>
<td>Literacy Intervention across the Disciplines</td>
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<tr>
<td>TCH-ED 470</td>
<td>Philosophy and History of Science and Technology</td>
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<td>Block 4</td>
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<tr>
<td>TCH-ED 437</td>
<td>Student Teaching in High School</td>
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<tr>
<td>TCH-ED 495</td>
<td>Seminar - Science</td>
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</table>

Total Credits 54

Students interested in a writing intensive experience or going deeper into learning about educational foundations may be interested in the following optional elective: Advanced Foundations (TCH-ED 408WI)

**Minimum GPA: 3.0**

**Total Credit Hours: 126**

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**Unified Science-Biology Emphasis Area**

**Program Specific Recommendations for UMKC General Education Core Coursework**

<table>
<thead>
<tr>
<th>Code</th>
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</tr>
<tr>
<td>Anchor II</td>
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</tr>
<tr>
<td>Anchor III</td>
<td></td>
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<tr>
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<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
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<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
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<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B (Satisfied in Program Requirements Below)</td>
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<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied by Constitution requirement)</td>
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<tr>
<td>Focus Elective (Satisfied in Program Requirements Below)</td>
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<td></td>
</tr>
</tbody>
</table>

Total Credits 21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
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Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

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<td>Choose one of the following:</td>
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<td>3</td>
</tr>
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<td>CJC 364</td>
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<td>3</td>
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<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
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<tr>
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<td></td>
</tr>
<tr>
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<td>Honors American Government (Focus C)</td>
<td>1</td>
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<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
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</tr>
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</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

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Biology (Unified Science) Content Area Coursework

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</tr>
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<td>General Biology I Laboratory and General Biology I (Focus B)</td>
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</tr>
<tr>
<td>BIOLOGY 109L &amp; BIOLOGY 109</td>
<td>General Biology II Laboratory and General Biology II (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>BIOLOGY 202</td>
<td>Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>or BIOLOGY 312WL</td>
<td>Laboratory in Developmental Biology, Genetics and Cell Biology</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 206</td>
<td>Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 302</td>
<td>General Ecology</td>
<td>5</td>
</tr>
<tr>
<td>&amp; 302L</td>
<td>and Ecology Laboratory</td>
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<tr>
<td>BIOLOGY 303</td>
<td>Invertebrate Zoology</td>
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<tr>
<td>or BIOLOGY 308</td>
<td>Vertebrate Zoology</td>
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</tr>
<tr>
<td>BIOLOGY 338L</td>
<td>Comparative Vertebrate Anatomy Laboratory</td>
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</tr>
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<td>BIOLOGY 346</td>
<td>Plant Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 405</td>
<td>Introduction to Evolution</td>
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</tr>
<tr>
<td>CHEM 211L &amp; CHEM 211</td>
<td>Experimental General Chemistry I and General Chemistry I (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 212LR &amp; CHEM 212R</td>
<td>Experimental General Chemistry II and General Chemistry II (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td>ENV-SCI 110L &amp; ENV-SCI 110R</td>
<td>Understanding the Earth Laboratory and Understanding the Earth: Introduction to Environmental Science and Laboratory (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td>GEOL-SCI 220</td>
<td>General Geology (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>LS-MCRB 112</td>
<td>Microbiology and Living</td>
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<tr>
<td>or LS-ANATO 218</td>
<td>Introductory Anatomy</td>
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<tr>
<td>or LS-ANATO 218L</td>
<td>Introductory Anatomy Laboratory</td>
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</tr>
<tr>
<td>or LS-PHYS 316</td>
<td>Principles of Physiology</td>
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<tr>
<td>or LS-PHYS 217</td>
<td>Human Physiology</td>
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</table>
Teacher Education Professional Coursework

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<td>Practicum I - Middle and High School ^1</td>
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<tr>
<td>Total Credits</td>
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<td>54</td>
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</table>

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Minimum GPA: 3.0

Total Credit Hours: 141

Chemistry Emphasis Area

Program Specific Recommendations for UMKC General Education Core Coursework

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<thead>
<tr>
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<tr>
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<td>HISTORY 102</td>
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<td>POL-SCI 210</td>
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<td></td>
</tr>
</tbody>
</table>

Total Credits 3

1. Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
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**Chemistry Content Area Coursework**

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<td>BIOLOGY 108</td>
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<tr>
<td>CHEM 211L</td>
<td>Experimental General Chemistry I and General Chemistry I (Focus B)</td>
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<tr>
<td>&amp; CHEM 211</td>
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<tr>
<td>CHEM 212LR</td>
<td>Experimental General Chemistry II and General Chemistry II (Focus B)</td>
<td>5</td>
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<tr>
<td>&amp; CHEM 212R</td>
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<tr>
<td>CHEM 321 &amp; 321L</td>
<td>Organic Chemistry I and Organic Chemistry Laboratory I</td>
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</tr>
<tr>
<td>CHEM 330</td>
<td>Elementary Physical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 367 or LS-BIOC 441</td>
<td>Bioorganic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 341WI or CHEM 345R</td>
<td>Analytical Chemistry I: Quantitative Analysis Instrumental Analysis</td>
<td>4</td>
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<tr>
<td>ENV-SCI 110L &amp; ENV-SCI 110R</td>
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</table>

Total Credits 43

**Teacher Education Professional Coursework**

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<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TCH-ED 312</td>
<td>Legal and Ethical Aspects of Teaching</td>
<td>3</td>
</tr>
</tbody>
</table>
TCH-ED 330  Analyzing Learning Environments in Urban Contexts  3
TCH-ED 403  Educational Psychology  3
TCH-ED 404  Education of the Exceptional Child and Youth  3
TCH-ED 420  Adolescent Development  3
TCH-ED 422  Practicum I - Middle and High School 1  1

Block 2
EDRD 439  Language & Literacy across the Disciplines  3
TCH-ED 314  Cultural Diversity and Teaching English Language Learners  3
TCH-ED 385  Teaching and Learning with Technology  3
TCH-ED 423  Practicum II - Middle and High School 1  1

Block 3
TCH-ED 315  Assessment and Data Literacy  3
TCH-ED 424  Practicum III - Middle and High School 1  1
TCH-ED 435  Special Methods of Teaching Science in Middle and High Schools  3
TCH-ED 438  Culturally Responsive Strategies for Teaching Diverse Learners  3
TCH-ED 463  Literacy Intervention across the Disciplines  3
TCH-ED 470  Philosophy and History of Science and Technology  3

Block 4
TCH-ED 437  Student Teaching in High School  9
TCH-ED 495  Seminar - Science  3

Total Credits  54

Students interested in a writing intensive experience or going deeper into learning about educational foundations may be interested in the following optional elective: Advanced Foundations (TCH-ED 408WI)

Minimum GPA: 3.0

Total Credit Hours: 121

Unified Science-Chemistry Emphasis Area

Program Specific Recommendations for UMKC General Education Core Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td>TCH-ED 300 DISC 100 DISC 200 DISC 300</td>
<td>3</td>
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<tr>
<td>Anchor II</td>
<td>TCH-ED 425 DISC 400 DISC 500 DISC 600</td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td>TCH-ED 430 DISC 500 DISC 600 DISC 700</td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td>TCH-ED 430 DISC 500 DISC 600 DISC 700</td>
<td>3</td>
</tr>
<tr>
<td>Focus B</td>
<td>TCH-ED 437 DISC 500 DISC 600 DISC 700</td>
<td>3</td>
</tr>
<tr>
<td>Focus C</td>
<td>TCH-ED 438 DISC 500 DISC 600 DISC 700</td>
<td>3</td>
</tr>
<tr>
<td>Focus Elective</td>
<td>TCH-ED 439 DISC 500 DISC 600 DISC 700</td>
<td>3</td>
</tr>
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</table>

Total Credits  21

1  See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose one of the following:</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>
There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

### Chemistry (Unified Science) Content Area Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 108L &amp; BIOLOGY 108</td>
<td>General Biology I Laboratory and General Biology I (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>BIOLOGY 109L &amp; BIOLOGY 109</td>
<td>General Biology II Laboratory and General Biology II (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 211L &amp; CHEM 211</td>
<td>Experimental General Chemistry I and General Chemistry I (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 212LR &amp; CHEM 212R</td>
<td>Experimental General Chemistry II and General Chemistry II (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 321L &amp; CHEM 321</td>
<td>Organic Chemistry Laboratory I and Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 322L &amp; CHEM 322R</td>
<td>Organic Chemistry Laboratory II and Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 330</td>
<td>Elementary Physical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 341WI</td>
<td>Analytical Chemistry I: Quantitative Analysis</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 345R</td>
<td>Instrumental Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 367 or LS-BIOC 441</td>
<td>Bioorganic Chemistry or Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 382</td>
<td>Inorganic And Organic Synthesis</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 387</td>
<td>Environmental Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>ENV-SCI 110L &amp; ENV-SCI 110R</td>
<td>Understanding the Earth Laboratory and Understanding the Earth: Introduction to Environmental Science and Laboratory (Focus B)</td>
<td>5</td>
</tr>
<tr>
<td>GEOLOGY 220</td>
<td>General Geology (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>PHYSICS 210</td>
<td>General Physics I (Focus B)</td>
<td>4</td>
</tr>
<tr>
<td>PHYSICS 220</td>
<td>General Physics II (Focus B)</td>
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</table>

**Total Credits**: 63

### Teacher Education Professional Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td></td>
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</tr>
<tr>
<td>TCH-ED 312</td>
<td>Legal and Ethical Aspects of Teaching</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 330</td>
<td>Analyzing Learning Environments in Urban Contexts</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 403</td>
<td>Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 404</td>
<td>Education of the Exceptional Child and Youth</td>
<td>3</td>
</tr>
</tbody>
</table>
TCH-ED 420  Adolescent Development  
TCH-ED 422  Practicum I - Middle and High School ¹ 

**Block 2**

EDRD 439  Language & Literacy across the Disciplines  
TCH-ED 314  Cultural Diversity and Teaching English Language Learners  
TCH-ED 385  Teaching and Learning with Technology  
TCH-ED 423  Practicum II - Middle and High School ¹

**Block 3**

TCH-ED 315  Assessment and Data Literacy  
TCH-ED 424  Practicum III - Middle and High School ¹  
TCH-ED 435  Special Methods of Teaching Science in Middle and High Schools  
TCH-ED 438  Culturally Responsive Strategies for Teaching Diverse Learners  
TCH-ED 463  Literacy Intervention across the Disciplines  
TCH-ED 470  Philosophy and History of Science and Technology

**Block 4**

TCH-ED 437  Student Teaching in High School  
TCH-ED 495  Seminar - Science

**Total Credits** 54

Students interested in a writing intensive experience or going deeper into learning about educational foundations may be interested in the following optional elective: Advanced Foundations (TCH-ED 408WI)

**Minimum GPA:** 3.0

**Total Credit Hours:** 141

---

**Earth Science Emphasis Area**

**Program Specific Recommendations for UMKC General Education Core Coursework**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I ¹</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Anchor II ¹</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Anchor III ¹</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
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<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A ¹</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Focus B (Satisfied in Program Requirements Below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied by Constitution requirement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus Elective (Satisfied in Program Requirements Below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits** 21

¹ See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

**Constitution Course Requirement**

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<tbody>
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<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) ¹</td>
<td></td>
</tr>
</tbody>
</table>
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Earth Science (Single) Content Area Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ASTR 150</td>
<td>Astronomy: Motions of the Cosmos</td>
<td>3</td>
</tr>
<tr>
<td>or ASTR 155</td>
<td>Astronomy: Starlight and Star Stuff</td>
<td></td>
</tr>
<tr>
<td>ASTR 153L</td>
<td>Introductory Astronomy Laboratory (Focus B)</td>
<td>2</td>
</tr>
<tr>
<td>BIOLOGY 108L</td>
<td>General Biology I Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>&amp; BIOLOGY 108</td>
<td>and General Biology I (Focus B)</td>
<td></td>
</tr>
<tr>
<td>CHEM 211L</td>
<td>Experimental General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>&amp; CHEM 211</td>
<td>and General Chemistry I (Focus B)</td>
<td></td>
</tr>
<tr>
<td>ENV-SCI 110L</td>
<td>Understanding the Earth Laboratory</td>
<td>5</td>
</tr>
<tr>
<td>&amp; ENV-SCI 110R</td>
<td>and Understanding the Earth: Introduction to Environmental Science and Laboratory (Focus B)</td>
<td></td>
</tr>
<tr>
<td>GEOLOGY 220</td>
<td>General Geology (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>PHYSICS 210</td>
<td>General Physics I (Focus B)</td>
<td>4</td>
</tr>
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</table>

Select at least two courses from the following:

<table>
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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>GEOG 203</td>
<td>Introduction to Geographic Information Systems</td>
</tr>
<tr>
<td>GEOG 314</td>
<td>Principles of Geomorphology</td>
</tr>
<tr>
<td>GEOG 360</td>
<td>Principles of Biogeography</td>
</tr>
<tr>
<td>GEOG 401</td>
<td>Advanced Geographic Information Science</td>
</tr>
<tr>
<td>GEOG 402</td>
<td>Environmental Remote Sensing and Digital Image Analysis</td>
</tr>
<tr>
<td>GEOG 404</td>
<td>Biogeography and Landscape Ecology</td>
</tr>
<tr>
<td>GEOG 406</td>
<td>Global Environmental Change</td>
</tr>
<tr>
<td>GEOG 442</td>
<td>Quaternary Environments</td>
</tr>
<tr>
<td>GEOG 444</td>
<td>Spatial Data Analysis</td>
</tr>
<tr>
<td>GEOG 448</td>
<td>Satellite Climatology</td>
</tr>
<tr>
<td>GEOLOGY 312</td>
<td>Mineralogy</td>
</tr>
<tr>
<td>GEOLOGY 313</td>
<td>Evolution and the Geologic Record</td>
</tr>
<tr>
<td>GEOLOGY 314</td>
<td>Principles of Geomorphology</td>
</tr>
<tr>
<td>GEOLOGY 342</td>
<td>Igneous and Metamorphic Petrology</td>
</tr>
<tr>
<td>GEOLOGY 370R</td>
<td>Hydrogeology</td>
</tr>
<tr>
<td>GEOLOGY 411</td>
<td>Mineral Deposits</td>
</tr>
<tr>
<td>GEOLOGY 446</td>
<td>Petroleum Geology</td>
</tr>
<tr>
<td>GEOLOGY 471</td>
<td>Tectonics</td>
</tr>
<tr>
<td>GEOLOGY 472</td>
<td>Earthquake Geology</td>
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</table>
## Teacher Education Professional Coursework

### Block 1

<table>
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<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>TCH-ED 312</td>
<td>Legal and Ethical Aspects of Teaching</td>
<td>3</td>
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<td>TCH-ED 330</td>
<td>Analyzing Learning Environments in Urban Contexts</td>
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</tr>
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<td>TCH-ED 403</td>
<td>Educational Psychology</td>
<td>3</td>
</tr>
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<td>3</td>
</tr>
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<td>TCH-ED 420</td>
<td>Adolescent Development</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 422</td>
<td>Practicum I - Middle and High School</td>
<td>1</td>
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### Block 2

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EDRD 439</td>
<td>Language &amp; Literacy across the Disciplines</td>
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</tr>
<tr>
<td>TCH-ED 314</td>
<td>Cultural Diversity and Teaching English Language Learners</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 385</td>
<td>Teaching and Learning with Technology</td>
<td>3</td>
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<tr>
<td>TCH-ED 423</td>
<td>Practicum II - Middle and High School</td>
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### Block 3

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>TCH-ED 315</td>
<td>Assessment and Data Literacy</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 424</td>
<td>Practicum III - Middle and High School</td>
<td>1</td>
</tr>
<tr>
<td>TCH-ED 435</td>
<td>Special Methods of Teaching Science in Middle and High Schools</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 438</td>
<td>Culturally Responsive Strategies for Teaching Diverse Learners</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 463</td>
<td>Literacy Intervention across the Disciplines</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 470</td>
<td>Philosophy and History of Science and Technology</td>
<td>3</td>
</tr>
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### Block 4

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>TCH-ED 437</td>
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<td>9</td>
</tr>
<tr>
<td>TCH-ED 495</td>
<td>Seminar - Science</td>
<td>3</td>
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</tbody>
</table>

Total Credits: **54**

### General Electives

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>7</td>
</tr>
</tbody>
</table>

Students interested in a writing intensive experience or going deeper into learning about educational foundations may be interested in the following optional elective: Advanced Foundations (TCH-ED 408WI)

Minimum GPA: **3.0**

Total Credit Hours: **120**

## Unified Science-Earth Science Emphasis Area

### Program Specific Recommendations for UMKC General Education Core Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td></td>
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<tr>
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</tr>
<tr>
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<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
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<tr>
<td>DISC 200</td>
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<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B</td>
<td>(Satisfied in Program Requirements Below)</td>
<td></td>
</tr>
<tr>
<td>Focus C</td>
<td>(May be satisfied by Constitution requirement)</td>
<td></td>
</tr>
<tr>
<td>Focus Elective</td>
<td>(Satisfied in Program Requirements Below)</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: **21**

---

1. See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
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</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) ¹</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 3

¹ Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
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- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

Earth Science (Unified Science) Content Area Coursework

<table>
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<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 150</td>
<td>Astronomy: Motions of the Cosmos</td>
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<td>or ASTR 155</td>
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</tr>
<tr>
<td>BIOLOGY 108L &amp; BIOLOGY 108</td>
<td>General Biology I Laboratory</td>
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<td>&amp; BIOLOGY 109 &amp; BIOLOGY 109</td>
<td>General Biology II Laboratory</td>
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<td>CHEM 211L &amp; CHEM 211</td>
<td>Experimental General Chemistry I</td>
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<td>&amp; CHEM 212LR &amp; CHEM 212R</td>
<td>Experimental General Chemistry II</td>
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<td>GEOL 220</td>
<td>General Geology (Focus B)</td>
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<td>GEOL 313</td>
<td>Evolution and the Geologic Record</td>
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<td>ENV-SCI 110L &amp; ENV-SCI 110R</td>
<td>Understanding the Earth Laboratory</td>
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<td>GEOL 314</td>
<td>Principles of Geomorphology</td>
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<td>GEOL 342</td>
<td>Igneous and Metamorphic Petrology</td>
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<td>GEOL 370R</td>
<td>Hydrogeology</td>
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<td>GEOL 411</td>
<td>Mineral Deposits</td>
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<td>GEOL 446</td>
<td>Petroleum Geology</td>
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GEOLOGY 471  Tectonics
GEOLOGY 472  Earthquake Geology

Total Credits  52

Teacher Education Professional Coursework

<table>
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<tr>
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<tbody>
<tr>
<td>TCH-ED 312</td>
<td>Legal and Ethical Aspects of Teaching</td>
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<td>Analyzing Learning Environments in Urban Contexts</td>
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<td>TCH-ED 420</td>
<td>Adolescent Development</td>
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<tr>
<td>TCH-ED 422</td>
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Block 2

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<td>Language &amp; Literacy across the Disciplines</td>
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<td>TCH-ED 314</td>
<td>Cultural Diversity and Teaching English Language Learners</td>
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<tr>
<td>TCH-ED 385</td>
<td>Teaching and Learning with Technology</td>
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Block 3

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<td>TCH-ED 424</td>
<td>Practicum III - Middle and High School</td>
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<td>TCH-ED 435</td>
<td>Special Methods of Teaching Science in Middle and High Schools</td>
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<tr>
<td>TCH-ED 438</td>
<td>Culturally Responsive Strategies for Teaching Diverse Learners</td>
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<td>TCH-ED 463</td>
<td>Literacy Intervention across the Disciplines</td>
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<td>Philosophy and History of Science and Technology</td>
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Block 4

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<td>TCH-ED 495</td>
<td>Seminar - Science</td>
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</table>

Total Credits  54

Students interested in a writing intensive experience or going deeper into learning about educational foundations may be interested in the following optional elective: Advanced Foundations (TCH-ED 408WI)

Minimum GPA: 3.0

Total Credit Hours: 130

Physics Emphasis Area

Program Specific Recommendations for UMKC General Education Core Coursework

<table>
<thead>
<tr>
<th>Code</th>
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<td>Anchor II</td>
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<td>Anchor III</td>
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<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
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<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
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<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
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<td>Focus B</td>
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<td>Focus C</td>
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<tr>
<td>Focus Elective</td>
<td>(Satisfied in Program Requirements Below)</td>
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</table>

Total Credits  21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
MATH 210 is required for Physics certification.

**Constitution Course Requirement**

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

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<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
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<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
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</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
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</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
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<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
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</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

**Physics (Single) Content Area Coursework**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOLOGY 108L &amp; BIOLOGY 108</td>
<td>General Biology I Laboratory and General Biology I (Focus B)</td>
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<tr>
<td>CHEM 211L &amp; CHEM 211</td>
<td>Experimental General Chemistry I and General Chemistry I (Focus B)</td>
<td>5</td>
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<td>ENV-SCI 110L &amp; ENV-SCI 110R</td>
<td>Understanding the Earth Laboratory and Understanding the Earth: Introduction to Environmental Science and Laboratory (Focus B)</td>
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<td>GEOLOGY 220</td>
<td>General Geology (Focus B)</td>
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<td>MATH 220</td>
<td>Calculus II</td>
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<td>PHYSICS 240</td>
<td>Physics For Scientists and Engineers I</td>
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<td>PHYSICS 250</td>
<td>Physics For Scientists and Engineers II</td>
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<td>PHYSICS 310</td>
<td>Mechanics I</td>
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<td>PHYSICS 350</td>
<td>Modern Physics With Engineering Applications</td>
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<td>PHYSICS 460</td>
<td>Electricity And Magnetism I</td>
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<td>PHYSICS 330</td>
<td>Methods Of Theoretical Physics I</td>
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<td>PHYSICS 385L</td>
<td>Physics of Electronics</td>
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<td>PHYSICS 395L</td>
<td>Computer Interfacing Laboratory</td>
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<td>PHYSICS 410</td>
<td>Thermal Physics</td>
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<tr>
<td>PHYSICS 420</td>
<td>Optics</td>
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<tr>
<td>PHYSICS 450</td>
<td>Introduction To Solid State Physics</td>
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</tr>
<tr>
<td>PHYSICS 472</td>
<td>Introduction To Quantum Mechanics</td>
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Select at least 1 course from the following: 3
### Advanced Laboratory

Total Credits 52

### Teacher Education Professional Coursework

<table>
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<td>Legal and Ethical Aspects of Teaching</td>
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<td>Analyzing Learning Environments in Urban Contexts</td>
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<tr>
<td>TCH-ED 403</td>
<td>Educational Psychology</td>
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<td>TCH-ED 404</td>
<td>Education of the Exceptional Child and Youth</td>
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<td>TCH-ED 420</td>
<td>Adolescent Development</td>
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<td>TCH-ED 422</td>
<td>Practicum I - Middle and High School&lt;sup&gt;1&lt;/sup&gt;</td>
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<tr>
<td>EDRD 439</td>
<td>Language &amp; Literacy across the Disciplines</td>
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<td>TCH-ED 314</td>
<td>Cultural Diversity and Teaching English Language Learners</td>
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<td>TCH-ED 385</td>
<td>Teaching and Learning with Technology</td>
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<td>TCH-ED 423</td>
<td>Practicum II - Middle and High School&lt;sup&gt;1&lt;/sup&gt;</td>
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<td>Assessment and Data Literacy</td>
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<td>TCH-ED 424</td>
<td>Practicum III - Middle and High School&lt;sup&gt;1&lt;/sup&gt;</td>
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<tr>
<td>TCH-ED 435</td>
<td>Special Methods of Teaching Science in Middle and High Schools</td>
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<tr>
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<tr>
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<td>TCH-ED 495</td>
<td>Seminar - Science</td>
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<tr>
<td>Total Credits</td>
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</table>

Students interested in a writing intensive experience or going deeper into learning about educational foundations may be interested in the following optional elective: Advanced Foundations (TCH-ED 408WI)

**Minimum GPA:** 3.0

**Total Credit Hours:** 130

### Unified Science-Physics Emphasis Area

**Program Specific Recommendations for UMKC General Education Core Coursework**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Anchor I&lt;sup&gt;1&lt;/sup&gt;</td>
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<tr>
<td>Anchor II</td>
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<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
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<td>Focus A&lt;sup&gt;1&lt;/sup&gt;</td>
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<td>Focus B (Satisfied in Program Requirements Below)&lt;sup&gt;2&lt;/sup&gt;</td>
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<td>Focus C (May be satisfied by Constitution requirement)</td>
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</table>

Total Credits 3

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Physics (Unified Science) Content Area Coursework

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<td>CHEM 212LR &amp; CHEM 212R</td>
<td>Experimental General Chemistry II and General Chemistry II (Focus B)</td>
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<td>ENV-SCI 110L &amp; ENV-SCI 110R</td>
<td>Understanding the Earth Laboratory and Understanding the Earth: Introduction to Environmental Science and Laboratory (Focus B)</td>
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<td>Calculus II</td>
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<td>PHYSICS 171</td>
<td>Physics for Future Presidents</td>
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<td>PHYSICS 240</td>
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<td>PHYSICS 460</td>
<td>Electricity And Magnetism I</td>
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PHYSICS 472  
Introduction To Quantum Mechanics  
3

Total Credits  
70

**Teacher Education Professional Coursework**

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<td>TCH-ED 420</td>
<td>Adolescent Development</td>
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**Block 2**

<table>
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<tr>
<th>Code</th>
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<th>Credits</th>
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<td>Language &amp; Literacy across the Disciplines</td>
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<td>TCH-ED 314</td>
<td>Cultural Diversity and Teaching English Language Learners</td>
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</tr>
<tr>
<td>TCH-ED 385</td>
<td>Teaching and Learning with Technology</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 423</td>
<td>Practicum II - Middle and High School</td>
<td>1</td>
</tr>
</tbody>
</table>

**Block 3**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCH-ED 315</td>
<td>Assessment and Data Literacy</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 424</td>
<td>Practicum III - Middle and High School</td>
<td>1</td>
</tr>
<tr>
<td>TCH-ED 435</td>
<td>Special Methods of Teaching Science in Middle and High Schools</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 438</td>
<td>Culturally Responsive Strategies for Teaching Diverse Learners</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 463</td>
<td>Literacy Intervention across the Disciplines</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 470</td>
<td>Philosophy and History of Science and Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Block 4**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>TCH-ED 437</td>
<td>Student Teaching in High School</td>
<td>9</td>
</tr>
<tr>
<td>TCH-ED 495</td>
<td>Seminar - Science</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits  
54

Students interested in a writing intensive experience or going deeper into learning about educational foundations may be interested in the following optional elective: Advanced Foundations (TCH-ED 408WI)

Minimum GPA: 3.0

Total Credit Hours: 148

**Social Science Emphasis Area**

**Program Specific Recommendations for UMKC General Education Core Coursework**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
</tbody>
</table>

Focus A (Satisfied in Program Requirements Below)
Focus B (Satisfied in Program Requirements Below)
Focus C (May be satisfied by Constitution requirement)
Focus Elective (Satisfied in Program Requirements Below)

Total Credits  
18

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1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td></td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) ¹</td>
<td></td>
</tr>
</tbody>
</table>

¹ Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

Social Science Content Area Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTHRO 103</td>
<td>Introduction To Cultural Anthropology (Focus C)</td>
<td>3</td>
</tr>
<tr>
<td>ECON 201</td>
<td>Introduction To Economics I (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 202</td>
<td>Introduction To Economics II</td>
<td></td>
</tr>
<tr>
<td>GEOG 200</td>
<td>World Geography I</td>
<td>3</td>
</tr>
<tr>
<td>or GEOG 202</td>
<td>World Geography II</td>
<td></td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 206</td>
<td>World History To 1450 (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 208</td>
<td>World History since 1450 (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 210</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOCIOL 101</td>
<td>Sociology: An Introduction (Focus C)</td>
<td>3</td>
</tr>
</tbody>
</table>

Political Science Electives

Select one of the following: 3

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL-SCI 220</td>
<td>Introduction To Comparative Politics (Focus C)</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 221</td>
<td>Introduction to Comparative Politics and Research (Focus C)</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 313</td>
<td>Politics In The American States</td>
<td></td>
</tr>
</tbody>
</table>

American History

Select two of the following in consultation with your academic advisor: 6

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HISTORY 304</td>
<td>America, 1783-1828: The National Experience</td>
</tr>
<tr>
<td>HISTORY 306</td>
<td>America, 1850-1877: Civil War and Reconstruction</td>
</tr>
<tr>
<td>HISTORY 308A</td>
<td>America: 1914-1945: The Era Of The World Wars</td>
</tr>
<tr>
<td>HISTORY 308B</td>
<td>Cold War, Conformity, and Dissent: America, 1945-1989</td>
</tr>
<tr>
<td>HISTORY 354R</td>
<td>Women in Modern America</td>
</tr>
<tr>
<td>HISTORY 356</td>
<td>Rise of the City in the U.S.</td>
</tr>
<tr>
<td>HISTORY 357</td>
<td>The American West</td>
</tr>
</tbody>
</table>
Bachelor of Arts: Secondary Education

HISTORY 361  America and the World in the Global Age: 1900 to the Present
HISTORY 365A  American Environmental History

World History
Select one of the following in consultation with your academic advisor:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HISTORY 300RH</td>
<td>Special Studies (Colonial Latin America)</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 404</td>
<td>Women and Gender in Latin America</td>
<td></td>
</tr>
<tr>
<td>HISTORY 406</td>
<td>Modern Latin America</td>
<td></td>
</tr>
<tr>
<td>HISTORY 462J</td>
<td>Japanese Civilization</td>
<td></td>
</tr>
<tr>
<td>HISTORY 470</td>
<td>Ancient Egypt</td>
<td></td>
</tr>
<tr>
<td>HISTORY 471</td>
<td>Ancient Greece</td>
<td></td>
</tr>
<tr>
<td>HISTORY 472</td>
<td>Ancient Rome</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 42

Teacher Education Professional Coursework Common to All Secondary Education Certification Areas

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TCH-ED 312</td>
<td>Legal and Ethical Aspects of Teaching</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 330</td>
<td>Analyzing Learning Environments in Urban Contexts</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 403</td>
<td>Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 404</td>
<td>Education of the Exceptional Child and Youth</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 420</td>
<td>Adolescent Development</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 422</td>
<td>Practicum I - Middle and High School 1</td>
<td>1</td>
</tr>
</tbody>
</table>

| Block 2  |                                                 |         |
| EDRD 439   | Language & Literacy across the Disciplines     | 3       |
| TCH-ED 314 | Cultural Diversity and Teaching English Language Learners | 3       |
| TCH-ED 385 | Teaching and Learning with Technology          | 3       |
| TCH-ED 423 | Practicum II - Middle and High School 1         | 1       |

| Block 3  |                                                 |         |
| TCH-ED 315 | Assessment and Data Literacy                   | 3       |
| TCH-ED 424 | Practicum III - Middle and High School 1       | 1       |
| TCH-ED 434 | Seminar in Social Science Curriculum           | 3       |
| TCH-ED 436 | Special Methods of Teaching Social Science in Middle and High Schools | 3       |
| TCH-ED 438 | Culturally Responsive Strategies for Teaching Diverse Learners | 3       |
| TCH-ED 463 | Literacy Intervention across the Disciplines   | 3       |

| Block 4  |                                                 |         |
| TCH-ED 437 | Student Teaching in High School                 | 9       |
| TCH-ED 496 | Seminar - Social Science                        | 3       |

Total Credits 54

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

Students interested in a writing intensive experience or going deeper into learning about educational foundations may be interested in the following optional elective: Advanced Foundations (TCH-ED 408WI)

Minimum GPA: 3.0

Total Credit Hours: 120

Graduation Requirements for Secondary Education

- Completion of at least 120 semester credit hours including all course work listed (Individual certification programs may require more than 120 semester credit hours.)
- Completion of the RooWriter
• Successful completion of all Missouri state certification requirements/exams

Tools for Planning and Fulfilling Academic Requirements

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
**Minor: Exercise Science**

**Student Learning Outcomes**

Students graduating from this program will:

- Integrate anatomic and biomechanics components of human movement, especially as they interact during athletic performance, bouts of exercise and physical activities of daily life.
- Describe, explain, and apply physiological facts and principles to real life situations, especially as they occur in athletics, and fitness and health promotion establishments.
- Identify the specific anatomical considerations, physical conditioning requirements, diet and exercise regimes, and injury prevention strategies, needed to improve physical health outcomes.
- Describe ways to use theories of behavior change to develop programs addressing a variety of lifestyle changes.
- Demonstrate superior knowledge of exercise science.

**Program Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLSC 110</td>
<td>Personal Wellness</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 120</td>
<td>Anatomy &amp; Physiology I *</td>
<td>4</td>
</tr>
<tr>
<td>HLSC 160</td>
<td>Anatomy and Physiology II *</td>
<td>4</td>
</tr>
<tr>
<td>PHYS-ED 300</td>
<td>Mechanical Analysis of Human Movement (prereq: HLSC 120 and HLSC 160 or concurrent enrollment)</td>
<td>3</td>
</tr>
<tr>
<td>PHYS-ED 350</td>
<td>Physiology of Sport and Exercise (prereq: HLSC 120 and HLSC 160 or concurrent enrollment)</td>
<td>3</td>
</tr>
<tr>
<td>PHYS-ED 370</td>
<td>Psychology of Sport and Exercise</td>
<td>3</td>
</tr>
<tr>
<td>PHYS-ED 391</td>
<td>Fitness Assessment and Exercise Prescription</td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>23</td>
</tr>
</tbody>
</table>

* If students are transferring an approved course equivalency for Anatomy & Physiology I & II that totals less than eight hours, they are required to take courses from the "strongly recommended" list to ensure they have earned a total of 23 hours to be awarded the Minor in Exercise Science. These courses include PHYS-ED 157, HLSC 200, and PHYS-ED 398.
Graduate Programs

General Information on Doctoral degrees (p. 1136)
General Information on Educational Specialist Degrees (p. 1138)
General Information on Master of Arts Degrees (p. 1140)
Counseling and Educational Psychology - Graduate Programs (p. 1141)
Curriculum and Instructional Leadership - Graduate Programs (p. 1151)
Educational Leadership, Policy and Foundations - Graduate Programs (p. 1169)
General Information on Doctoral Degrees

The School of Education offers a Ph.D. degree program in Counseling Psychology that is accredited by the American Psychological Association since 1985. The School also participates, through the School of Graduate Studies, in the Interdisciplinary Ph.D. program. Two disciplines, curriculum and instruction and educational leadership, policy and foundations are offered through the School of Education. Students may select one or both of those disciplines in addition to disciplines offered through other academic units across campus.

All but a select few Ph.D. programs at UMKC are interdisciplinary. Students desiring to study at the doctoral level in curriculum and instruction and/or educational leadership, policy and foundations in education (which includes the foundation areas of educational theory and educational administration) must apply to the School of Graduate Studies. Detailed information on the general and discipline-specific admission requirements may be found in the School of Graduate Studies (p. 1185) section of the catalog.
Interdisciplinary, Ph.D.

All but a select few Ph.D. programs at UMKC are interdisciplinary. Students desiring to study at the doctoral level in curriculum & instruction and/or educational leadership, policy and foundations in education (which includes the foundation areas of educational theory and educational administration) must apply to the School of Graduate Studies. Detailed information on the general and discipline-specific admission requirements may be found in the School of Graduate Studies (https://catalog.umkc.edu/colleges-schools/graduate-studies) section of the catalog.
General Information on Educational Specialist Degrees

The goal of the educational specialist degree is to develop personnel who are highly competent practitioners/specialists in specific fields of education. The program of study will place emphasis on the extension of the students’ abilities to apply theory, methodology and techniques to practical problems related to the individual’s field. The breadth of studies will be consistent with the guidelines suggested by the National Board for Professional Teaching Standards. Graduates are expected to be competent translators of practices and research.

The educational specialist degree can be earned in counseling and guidance, educational administration, reading education, or curriculum and instruction.

Requirements for Admission

Students are eligible for consideration for admission to the Ed.S. degree program in the School of Education when they have met at least one of the following requirements:

• Students must be eligible for regular admission to the School of Education at the graduate level (undergraduate GPA must be at least 3.0 on a 4.0 scale); if applicants have earned graduate credit, their graduate GPA must be at least 3.0.

• The completion of a master’s degree from an accredited institution of higher education and a cumulative graduate GPA of at least 3.0.

Applicants who have met one of the above requirements for admission to the School of Education at the Ed.S. level must also meet the divisional admission requirements for the specific degree program (educational administration, counseling and guidance, curriculum and instruction, or reading education). Consult the section of the catalog outlining the requirements of the divisions.

All educational specialist degree-seeking students are governed both by School of Education requirements and those of the School of Graduate Studies.

Program Requirements

A minimum of 60 hours of approved graduate work beyond the bachelor’s degree is required for the educational specialist degree, with at least 60 percent of the courses numbered 5500 and above. Any courses on the 300 and 400 level included in the Ed.S. program of study must be accepted by the advisor and taken for graduate credit.

As soon as possible after admission to graduate study, students should seek to meet with a faculty member in the major to plan a program of study. This program must be filed in the Education Student Services Office and approved by the dean’s representative when students still have at least 18 hours of coursework beyond the master’s degree to complete. A majority of new coursework applied to any graduate degree to be completed at UMKC must be taken at UMKC. Transfer credit not included in a master’s degree must not be more than 7 years old at the time of degree completion or graduation.

Transfer credit may be allowed for correspondence courses, provided the credits meet the criteria for graduate coursework. Completed courses offered by the School of Education’s Continuing and Professional Education Program will be accepted into graduate degree programs in accordance with guidelines adopted by the School of Education.

UMKC credit more than seven years old at the time of degree completion that has not been included on a master’s degree is not applicable to an Ed.S. degree unless validated to the satisfaction of the School of Education and the School of Graduate Studies. A maximum of 30 percent of coursework on the student’s program of study may be validated under this procedure. All validation must be completed by the end of the final semester of enrollment.

The coursework is divided into the following study areas:

Specialization (21-42 hours)
The specialization is defined as a body of coursework associated with the area of concentration or major. Such courses might deal with the theory, research and methodology of the field.

Supporting Area(s) (9-15 hours each)
In addition to specific courses in a field of study, there are those courses which expand the competence of the specialist. These supporting areas might include study in one or two related areas, or study might be an intensive development of specific skills within the field.

Culminating Experience (3-12 hours)
All students should be able to demonstrate an ability to perform satisfactorily in situations approximating the intended role or specialization. While such experience may be included in regular coursework, at least 3 hours of supervised practicum, internship or field experience should be accomplished where the practice is the focus of the course.
Humanistic and Behavioral Studies (6-12 hours)

The success of a specialist may also depend on a broader understanding and interpretation of the concepts related to the problems and practices of the field, as revealed by study in humanistic and behavioral sciences. Courses or seminars in educational history, philosophy, psychology or sociology, or other appropriate courses, might be included in this area.

Residency

Enrollment as a full-time graduate student during one semester (5 credit hours during summer sessions, 9 credit hours during fall and spring semesters) is required for the educational specialist degree.

Final Examination

Students are required to pass a final examination in the major field or an oral examination upon the completion of the practicum or internship for the educational specialist degree.

Requirements for Retention

Students should assume responsibility for the following steps:

1. Complete all admission requirements.
2. With the faculty advisor, establish a program of study and have it approved by the dean’s representative.
3. Complete all courses listed on the program of study.
4. Maintain an acceptable GPA (Grades below B- in 300- or 400-level courses taken for graduate credit will not be accepted on the program of study. No grade lower than a C in any 5500-level course is acceptable. A minimum of 80 percent of the program must be completed with grades of A or B. Additionally, students must maintain a 3.0 (B) average in all graduate coursework, regardless of whether the courses are on the actual program of study.
5. Apply for the degree (graduation) by the posted deadline during their final term of enrollment. Students are required to be enrolled in at least one credit hour during the term the degree requirements are to be completed.
General Information on Master of Arts Degrees

Requirements for the Master of Arts

Requirements for a master's degree include a minimum of 30 credit hours but vary according to the major and emphasis area. Regardless of program length, at least 60 percent of the coursework on the degree program must be numbered 5500 or above. At least 3.0 GPA must be maintained, with no grade lower than a C earned in any 5500-level course. A maximum of 20 percent of coursework numbered 5500 or above on the master's program may have grades of C. Any courses on the 300 and 400 level to be included in a master of arts program must be taken for graduate credit and only by arrangement with the advisor. No grade lower than B- may be earned in any 300- or 400-level course to be used toward a graduate degree.

As soon as possible after regular admission to graduate study, the student should meet with a faculty advisor to develop a program of study. This program must be filed with the Education Student Services Office before the end of the second semester enrolled in the program. Program revisions may be requested later but also must be approved by the student's advisor and the dean's representative.

Twenty percent of resident graduate coursework may be transferred from other accredited universities' graduate programs. A maximum of 49 percent of acceptable graduate work (no grade below B) may be transferred from other campuses of the University of Missouri. Credits are transferred only with the recommendation of the advisor and the consent of the dean's representative in the School of Education. Transfer credit must not be more than seven years old at the time of program completion.

Transfer credit may be allowed for correspondence courses, provided the credits meet the above criteria. A maximum of six semester hours of continuing education courses that have been taken for graduate credit (workshops, special topics) may be included on a master's program. Students must provide a letter from the transfer institution clarifying the grade equivalent for transfer work posted as "credit" or "pass."

For regular courses taken through continuing education at UMKC to apply on degree programs, the student must be admitted to graduate study and have an approved program on file, including the continuing education courses.

Credit more than seven years old at the time of degree completion must be validated. To validate a course, the student must meet with the instructor of the current equivalent course to devise a plan in which the student's current knowledge of the coursework can be assessed. Faculty may ask the student to write a paper, review current literature, or take examinations to determine whether the student's knowledge of the subject is acceptable. A maximum of 30 percent of the student's program of study may be validated under this procedure. All validation must be completed prior to the completion of the final semester of enrollment for the degree.

A thesis is not required for the master of arts degree, although the option for a thesis is available. A final integrating experience or independent or group research study may be required of those not selecting the thesis option.

Requirements for Retention

Students must:

1. Meet all admission requirements.
2. File a planned program of study in consultation with a faculty advisor and have it approved by the dean's representative in the Education Student Services Office.
3. Complete all coursework listed on the approved program of study.
4. Maintain an acceptable graduate GPA with no grades below B- (3.0) in 300- or 400-level courses, no grades below C (2.0) in any 5500-level course, at least 80 percent of the degree program completed with grades of A or B, and a 3.0 average maintained in all graduate coursework, regardless of whether the courses are on the actual degree program.
5. Apply for the degree (graduation) by the posted deadline during the final term of enrollment.
6. Enroll in at least one credit hour during the term they intend to graduate.
Counseling and Educational Psychology - Graduate Programs

Ph.D.: Counseling Psychology (p. 1142)
Educational Specialist: Counseling (p. 1145)
Master of Arts: Counseling (p. 1148)
Graduate Certificate: Health Professions Education (p. 1535) (School of Medicine)
Ph.D. - Counseling Psychology

Overview
The PhD program in Counseling Psychology offers broad and general training that emphasizes multicultural and individual diversity within a scientist-practitioner model. Our program model is intended to educate ethical and flexible health service counseling psychologists who can work in a variety of settings and rely on the underlying philosophies and values of counseling psychology and the scientist-practitioner model. The program has been fully accredited by the American Psychological Association since 1985.

Student Learning Outcomes
The main goal of our program is to prepare entry-level health service psychologists trained in a counseling psychology model to improve the welfare of individuals and communities through scholarship and applied interventions. This main goal is broken down in four specific aims:

Aim 1: Graduates develop a professional identity as a health service counseling psychologist.
Aim 2: Graduates understand the importance and complexity of cultural and individual diversity, including knowledge of their cultural selves. They acquire the competence to apply knowledge of diversity in all areas of science and practice, and will engage in practice activities and research, attending to minority populations and/or other aspects of diversity.
Aim 3: Graduates understand psychology as a scientific discipline. They are able to create, evaluate, and ethically contribute to the empirical knowledge base of psychological practice and theory. They can carrying out original and independent empirical investigations of psychological phenomena.
Aim 4: Graduates are trained to meet the varied needs of their diverse clients using ethical interventions based in counseling theory and informed by science. Graduates are able to establish effective professional and interprofessional/interdisciplinary relationships and effectively use and provide supervision, consultation, and instruction/teaching.

For more information, see: http://education.umkc.edu/academics/doctoral-degrees/doctorate-of-philosophy-ph-d-in-counseling-psychology/

Admission Criteria
The program accepts bachelor’s-level and master’s-level applicants. Approximately six to ten students are admitted to the Counseling Psychology program each year.

Recommended minimum for bachelor’s level applicants:
- The completion of a bachelor’s degree with a major in psychology.
- Official GRE scores obtained within the last five years.
- An overall undergraduate 3.0 GPA covering all college work taken prior to the bachelor’s degree, or 3.25 for the major courses or the last 60 credits of the bachelor’s degree.
- Additional requirements may apply for international students.

Recommended minimum for master’s level applicants:
- The completion of a master’s degree in counseling or a closely related area.
- Official GRE scores obtained within the last five years.
- Graduate GPA of 3.5 or above.
- Additional requirements may apply for international students.

Applicants will be evaluated using the following dimensions: academic potential, research potential, research interest, interpersonal characteristics, contribution to program diversity, commitment to multiculturalism, professional goals and interest, understanding of the profession of counseling psychology.

Alternative Criteria: students who do not meet the regular recommended criteria may be admitted under alternative criteria provided there is good reason to believe that the regular criteria do not adequately manifest the student’s potential to do quality work in the program. The Counseling Psychology faculty reserves the right to require those who are admitted under the alternative criteria to take some background core courses in psychology before or during the first year of their doctoral training in the areas of general psychology, theories of personality, tests and measurement, abnormal psychology, experimental psychology, and introductory statistics. This decision will be made by the admission committee and the student’s assigned advisor, and communicated to the student before he/she starts the program.

The admission committee will consist of three or more faculty members and one or more student members. The student member must be in his or her final year of the academic program (i.e., doing the pre-doctoral internship in the subsequent academic year). Using the above criteria, the admission committee will select approximately thirty applicants to be offered interviews. Campus interview will be recommended, but not required. Phone interviews are offered for those who cannot make the campus interview on our Interview Day. Admission will be offered to a small number of the
applicants interviewed. In addition, the committee selects a list of those who were interviewed to serve as alternates. Candidates will be notified of the admissions decisions no later than March 15. Candidates are required to act on the notifications by April 15th. If a first-round candidate does not accept, an alternate for the position will be selected from the list of the remaining candidates. Alternates will have 7 days to act on the notification, but if the offer is made on or after April 15, they will have 3 days to give a definite response. In making decisions, the Counseling Psychology Program at UMKC does not discriminate against anyone on the basis of race, gender, ethnicity, sexual orientation, age, religion, nationality, or physical disability and appearance.

Admission Requirements
Admission deadline: December 1st

Please note that the application materials must be submitted to two separate offices:

MATERIALS TO BE SENT TO THE UMKC ADMISSIONS OFFICE:
University of Missouri – Kansas City
Office of Admissions
120 Administrative Center
5100 Rockhill Road
Kansas City, MO 64110-2499
Phone: (815) 235-1111

1. UMKC Application for Admission* online at http://www.umkc.edu/admissions/
2. Application Fee
3. Official transcripts from all post-secondary institutions
4. Official Graduate Record Examination (GRE), including the GRE writing scores, sent directly from ETS, obtained within the last 5 years. After you have taken the GRE, scores take 5-6 weeks to arrive at UMKC.

MATERIALS TO BE SENT TO DIVISION OF COUNSELING AND EDUCATIONAL PSYCHOLOGY OFFICE:

University of Missouri – Kansas City
ATTN: PhD in Counseling Admissions Committee
215 Education Building
5100 Rockhill Road
Kansas City, MO 64110-2499
Phone: 816)235-2722
Email: umkccep@umkc.edu
Website: http://education.umkc.edu/download/counseledpsych/PhD-application-2015-Correctedv1.pdf

1. Cover Sheet for the PhD in Counseling Psychology (attached)
2. Curriculum Vita
   • Personal information (address, phone, email)
   • Educational background
   • Relevant clinical and research experiences
   • Relevant volunteer work
   • Honors or awards
   • Membership / leadership in professional organizations
   • Presentations and publications
3. Three letters of recommendation
   • Raters should be professional references, this excludes family and friends
   • Raters should address your suitability for professional studies in counseling
   • Raters should address your interpersonal and intellectual functioning and skills in research, counseling and written and oral communication
   • Raters should enclose their letters of recommendation along with the provided rating sheet (attached) in an envelope and sign their names across the sealed flap of the envelope
4. Personal statement
   • Submit a concise 500 word max statement concerning your professional goals. Also, address your professional and applied interest and experiences.
*Please note that admission to UMKC does not guarantee admission to the Doctor of Philosophy degree program in Counseling Psychology.

**Additional Requirement for International Applicants**

Success in the counseling profession relies heavily on oral expression and, therefore, the Counseling and Educational Psychology division faculty require that all non-native English speaking international applicants demonstrate their proficiency in English, preferably by taking the internet-based Test of English as a Foreign Language (iBT TOEFL). Applicants are expected to demonstrate their oral English proficiency by obtaining a score of at least 23 points (score range 0-30) on the speaking section and at least 20 points (score range 0-30) on the listening section of the iBT TOEFL before their applications are reviewed by the admissions committee. Please be aware that the minimum admission score for the iBT TOEFL test set by the UMKC International Student Affairs Office is 79, and that the Counseling and Educational Psychology division requires specific minimum scores on the speaking and listening subtests in addition to the University requirement.

While iBT TOEFL scores are strongly preferred by the Counseling and Educational Psychology division faculty, scores on the International English Language Testing System (IELTS) will also be considered as evidence of English proficiency. Applicants taking the IELTS are expected to demonstrate their oral English proficiency by obtaining a score of at least 7 (score range 0-9) on the speaking subsection of the IELTS and a 6.5 (score range 0-9) on the listening subsection. In addition, applicants are expected to obtain a score of 6.5 on the total IELTS before applications are reviewed by the admissions committee. Please note that the minimum admission score for the IELTS test set by the UMKC International Student Affairs Office is 6, and that the division requires specific minimum scores and a higher overall score than the University requirement.

**NOTE:** Both TOEFL and IELTS scores must not be more than two years old.
Educational Specialist: Counseling

Mission Statement

The mission of the Counseling programs at UMKC’s School of Education is to prepare students to meet the varied psychological, social, and educational needs of individuals, couples and families in diverse urban communities. With an emphasis on social justice, the programs are based on national and state standards for excellence in counselor education training and the overarching goal of the programs is to develop competent counseling professionals who are eligible for certification as professional school counselors and to be licensed as professional counselors.

Overview of the Ed.S. in Counseling

The Educational Specialist degree in Counseling is a post-masters program designed for experienced counselors who desire to add another area to their professional expertise. The program is designed with flexibility to support the preparation of licensed professional counselors and certified school counselors. Emphasis areas include Mental Health Counseling and School Counseling.

All students pursuing the Educational Specialist degree in Counseling complete a minimum of 26 hours of required coursework (because of certification and licensure requirements, students may be required to complete additional courses). In addition to the core courses, students will complete 12 or more hours depending on the chosen emphasis area and certification and/or licensure requirements. The curriculum is individually designed with an adviser so each candidate meets his/her specific needs and professional objectives. Those electing the School Counseling emphasis will, upon successful completion of the coursework and passing of the state exams for counseling, become eligible for school counselor certification in Missouri. The Mental Health Counseling emphasis area is designed for students who wish to work in a variety of settings other than the public schools. Those earning degrees in counseling become employed in community colleges, four-year colleges, specialized areas in large universities (e.g., career planning and placement, drug and alcohol counseling), the court system and community-based mental health services.

Requirements for Admission

1. Hold a master's degree in counseling from an accredited institution.
2. A grade of "B" or better is required for courses in theories and methods of counseling.
3. A grade of "pass" or "credit" is required for counseling practicum courses.
4. Overall master's in counseling degree GPA of at least 3.25 on a 4.0 scale.

Admission Procedures

Applications are accepted and reviewed on an ongoing basis. Applicants are encouraged to apply early to allow for processing and review time, which could take up to 8 weeks. Application materials must be submitted to two separate offices on campus.

Send the following materials to the Mailing Address below:

1. UMKC Application for Admission.
2. Application Fee: $35 (domestic online) or $50 (international) non-refundable application fee.
3. Official transcripts from all post-secondary institutions.
4. Official GRE scores.

NOTE: The GRE requirement can be waived if the applicant is a graduate of master degree program equivalent to UMKC Master's degree in Counseling and Guidance (at least 48 credit hrs) with a graduate GPA of 3.5. If you do not have an official report of your performance on the GRE, you can make arrangements to take the test at the Counseling, Health, and Testing Center, 4825 Troost Ave (816) 235-1635, or at almost any university counseling center.

Mailing Address

University of Missouri-Kansas City
UMKC Admissions
120 Administrative Center
5100 Rockhill Road
Kansas City, MO 64110-2499

Send the following materials to the address below:

1. Cover sheet for the Education Specialist Degree in Counseling Program (included in the program application packet).
2. Three applicant evaluation forms (included in the program application packet) with attached letters of recommendation.
   • Raters should address your suitability for professional studies in counseling.
   • Raters should have knowledge of your interpersonal and intellectual functioning and skills in research, counseling and written and oral communication.
• Raters should enclose their letters of recommendation along with the provided rating sheet in an envelope, sign their names across the sealed flap, and either return to the applicant for later submission or mail directly to the Division at the address below.

• Raters should be professional references. This excludes friends and family members.

3. Personal statement.
   • Submit a concise two to three page statement concerning your professional goals.
   • Include your professional and applied interests/experiences.

4. Additional requirements may apply for international students.

Mailing Address
University of Missouri-Kansas City
ATTN: ED.S. Counseling Admissions Committee
215 Education Building
5100 Rockhill Road
Kansas City, MO 64110-2499

Student Learning Outcomes
Students graduating from this program will:

• integrate various models of counseling supervision to develop and apply a personal theory of supervision to case studies.
• apply contemporary theories of counseling and evidence based practice to conceptualization of client cases.
• evaluate developmental theories and approaches to counseling special populations.
• be able to provide counseling, case management, intervention, and assessment services in a community setting.
• apply multicultural awareness, knowledge and skills to counseling interventions with diverse clients.
• apply knowledge of mental health consultation processes in designing a prevention program intended to address mental health or social justice needs in the community.
• evaluate current and future trends in career development, theory, and practice.

Curriculum
Program of study includes a minimum of 26 credit hours of coursework, including core courses and 12 or more credit hours for emphasis area, certification, and/or licensure requirements. Additional coursework may be necessary for students who did not complete all of the program prerequisite courses during their master’s degree in counseling. Individual coursework is dependent on the emphasis option chosen and coursework completed during the master’s degree in counseling and will be determined with the help of the student’s faculty adviser. Students must achieve a grade of B or better in all coursework associated with the Ed.S. program.

• No grade below B in courses will be acceptable.
• Students are required to confer with advisers prior to enrolling in any course leading to the educational specialist degree.
• Courses at the 5600 level cannot be taken until students are admitted to the Ed.S. program. Please note that 5600 level coursework may be offered during daytime hours.

Mental Health Common Core Courses  (Required 14-17 Semester Credit Hours)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPCE 5620</td>
<td>Advanced Theories And Methods Of Counseling</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5640</td>
<td>Theories And Methods Of Counseling Supervision</td>
<td>2</td>
</tr>
<tr>
<td>CPCE 5590</td>
<td>Prevention, Consultation, and Program Evaluation in Community Settings</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5503</td>
<td>Psychopathology: Diagnoses And Classification</td>
<td>3</td>
</tr>
<tr>
<td>Six credits of practicum and/or internship from the following course options:</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>CPCE 5532</td>
<td>Counseling Practicum II</td>
<td></td>
</tr>
<tr>
<td>CPCE 5533</td>
<td>Couples And Family Therapy Practicum</td>
<td></td>
</tr>
<tr>
<td>CPCE 5539</td>
<td>Continuing Counseling Practicum</td>
<td></td>
</tr>
<tr>
<td>CPCE 5633</td>
<td>Advanced Couples &amp; Family Practicum</td>
<td></td>
</tr>
</tbody>
</table>

Mental Health Additional Courses (Minimum of 12 semester credit hours required)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<td>CPCE 5521</td>
<td>Special Counseling Methods - Substance Abuse</td>
<td>3</td>
</tr>
<tr>
<td>Code</td>
<td>Title</td>
<td>Credits</td>
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<tr>
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</tr>
<tr>
<td>CPCE 5541</td>
<td>Couples And Family Therapy</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5542</td>
<td>Theories and Techniques of Family Systems Therapy</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-R&amp;P 5513</td>
<td>Life Span Human Development</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5527</td>
<td>Theory And Methods Of Sexual Counseling</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5528</td>
<td>Introduction to Play Therapy</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5598</td>
<td>Individual Studies</td>
<td>1-6</td>
</tr>
<tr>
<td>EDUC-R&amp;P 5510</td>
<td>Child Behavior And Development</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-R&amp;P 5512</td>
<td>Adolescent Development And The School</td>
<td>3</td>
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</tbody>
</table>

**School Counseling Common Core Courses (Required 11 semester credit hours)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPCE 5605</td>
<td>Career Development II</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5640</td>
<td>Theories And Methods Of Counseling Supervision</td>
<td>2</td>
</tr>
<tr>
<td>CPCE 5532</td>
<td>Counseling Practicum II</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5575C</td>
<td>Internship In Counseling III</td>
<td>3-16</td>
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**School Counseling Additional Courses (Required 15 semester credit hours)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPCE 5502</td>
<td>Fndtns Of Elementary &amp; Secondary School Counseling &amp; Guidance</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5504</td>
<td>School Guidance Programs</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5550</td>
<td>Organization And Administration Of Counseling Programs</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 404</td>
<td>Education of the Exceptional Child and Youth ((TCH-ED 5404))</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-C&amp;I 5512</td>
<td>Strategies For Effective Classroom Management</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-C&amp;I 5517</td>
<td>Teaching Methods And Practices</td>
<td>3</td>
</tr>
</tbody>
</table>

Select the following for UMKC K-12 certification:

- EDUC-R&P 5510 & EDUC-R&P 5512
- Child Behavior And Development and Adolescent Development And The School
- or EDUC-R&P 5513
- Life Span Human Development

**NOTE:** TCH-ED 5404 (TCH-ED 404), EDUC-C&I 5512, EDUC-C&I 5517, CPCE 5550, EDUC-R&P 5510, EDUC-R&P 5512 and EDUC-C&I 5513 are required for those who do not hold a current teaching certificate. Many people with a teaching certificate would already have taken these courses.

**Requirements for Graduation**

Students must complete all courses in the Ed.S. program with a B or better in all coursework.

Students must apply for graduation by the posted deadline during their final term of enrollment. All students must be enrolled during the term they intend to graduate.

Students in the school counseling emphasis must pass the Missouri state assessments for school counseling.

Students in the School Counseling emphasis must pass the portfolio requirement.

More information about the program can be found at http://education.umkc.edu/programs/view/17
Master of Arts: Counseling

Mission Statement

The mission of the Counseling programs at UMKC’s School of Education is to prepare students to meet the varied psychological, social, and educational needs of individuals, couples and families in diverse urban communities. With an emphasis on social justice, the programs are based on national and state standards for excellence in counselor education training and the overarching goal of the programs is to develop competent counseling professionals who are eligible for certification as professional school counselors and to be licensed as professional counselors.

Overview of the M.A. in Counseling

The Counseling Program is accredited by the Master’s in Psychology and Counseling Accreditation Council. The master's degree is the first professional degree in counseling. Graduates holding this degree will gain the basic understanding and skills necessary for professional practice as a counselor. The program currently offers three emphasis areas leading to the M.A. degree: Elementary and Secondary School Counseling, Couples and Family Counseling and Mental Health Counseling.

Those electing the school counseling emphasis will, upon successful completion of the coursework and passing of the state exams for school counseling, be eligible for school counselor certification in Missouri. The other counseling emphases are designed for students who wish to work in a variety of settings other than the public schools. Those earning degrees in counseling become employed in community colleges, four-year colleges, specialized areas in large universities (e.g. career planning and placement), the court system and community-based mental health services. Many students go on for advanced degrees. Students in this program will take all of the coursework needed to be eligible for licensure as a professional counselor in the state of Missouri. Students may also arrange their internship setting placements similar to those in which they plan to work.

Requirements for Admission

- Overall undergraduate 2.75 GPA or better, or 3.0 or better (4.0 scale) in the last 60 semester hours.

Admission Procedures

Applications for the program are accepted twice a year: by Sept. 1 to be admitted for the spring semester or by March 1 to be admitted for the fall semester. Application materials must be sent to both the UMKC Office of Admissions and the Division of Counseling and Educational Psychology. It is suggested that students apply to the University as soon as possible to allow for processing time. Materials sent to the UMKC Admissions Office should be received by the application deadlines; materials sent to the Division of Counseling and Educational Psychology can be postmarked by the application deadlines.

Students who wish to apply to the program will have to submit two separate applications, one to the University (see A. below) and one to the Division of Counseling and Educational Psychology (see B. below).

A. Send to the UMKC Admission office:

2. $35 (domestic online) or $50 (international) non-refundable application fee.
3. Official transcripts from all colleges/universities previously attended (in sealed envelope or sent directly from universities).

Mailing Address
University of Missouri-Kansas City
Office of Admissions
120 Administrative Center
5100 Rockhill Road
Kansas City, MO 64110-2499

B. Send to the Counseling and Educational Psychology office:

2. Three letters of reference (use rating forms in the application packet).
3. Statement defining personal and professional goals.
4. Additional requirements may apply for international students.

Mailing Address
University of Missouri-Kansas City
ATTN: Division of Counseling and Educational Psychology
215 Education Building
Requirements for Graduation

Students must complete all courses in the M.A. program with a B or better in all coursework.

Students must apply for graduation by the posted deadline during their final term of enrollment. All students must be enrolled during the term they intend to graduate.

Students in the school counseling emphasis must pass the Missouri state assessments exams for school counseling.

Students in school counseling emphasis must pass the portfolio requirement.

For more specific information about the master's in Counseling and Guidance see http://education.umkc.edu/programs/view/16

Student Learning Outcomes

Graduates demonstrate skills and knowledge in the following areas:

- Theories and skills of counseling
- The counseling relationship
- Social and cultural foundations of counseling
- Career development
- Assessment
- Research methods
- Professional identity
- Group theory and skills
- Ethical standards and issues
- Diagnostic systems
- Comprehensive program development, implementation and management

Additional School Counseling Student Learning Outcomes*

- Student development
- Program implementation
- Professional relationships
- Leadership and advocacy
- Ethical and professional conduct
- Cultural competence

*The UMKC Counseling Program Goals are based on the Missouri Standards for the Preparation of Educators (MoSPE). The MoSPE Standards for School Counselors are the foundation for certification in Missouri.

Degree Requirements

* Note: Only courses with an asterisk may be taken prior to being admitted to the program.

# Note: Course can be taken if officially admitted to a graduate degree program.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CPCE 5500</td>
<td>Introduction To Professional Counseling *</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5505</td>
<td>Career Development I #</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-R&amp;P 5508</td>
<td>Principles And Methods Of Research *</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5515</td>
<td>Assessment Methods In Professional Counseling</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5520</td>
<td>Theories of Counseling</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5530</td>
<td>Methods Of Counseling</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5531</td>
<td>Counseling Practicum I</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5532</td>
<td>Counseling Practicum II</td>
<td>3</td>
</tr>
<tr>
<td>or CPCE 5533</td>
<td>Couples And Family Therapy Practicum</td>
<td></td>
</tr>
<tr>
<td>CPCE 5540</td>
<td>Theories And Methods In Group Counseling</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
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<tr>
<td>CPCE 5551</td>
<td>Counseling in a Pluralistic Society</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5553</td>
<td>Ethics And Professional Issues In Counseling</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5575A</td>
<td>Internship In Counseling I</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5575B</td>
<td>Internship In Counseling II</td>
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**Couples and Family Emphasis Area**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CPCE 5503</td>
<td>Psychopathology: Diagnoses And Classification</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5527</td>
<td>Theory And Methods Of Sexual Counseling</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5541</td>
<td>Couples And Family Therapy</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5542</td>
<td>Theories and Techniques of Family Systems Therapy</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5590</td>
<td>Prevention, Consultation, and Program Evaluation in Community Settings</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-R&amp;P 5513</td>
<td>Life Span Human Development</td>
<td>3</td>
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</table>

3 hours elective coursework

**Mental Health Emphasis**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CPCE 5503</td>
<td>Psychopathology: Diagnoses And Classification</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5527</td>
<td>Theory And Methods Of Sexual Counseling</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5521</td>
<td>Special Counseling Methods - Substance Abuse</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-R&amp;P 5513</td>
<td>Life Span Human Development</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 5590</td>
<td>Prevention, Consultation, and Program Evaluation in Community Settings</td>
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6 hours elective coursework

**School Counseling Emphasis**

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<td>CPCE 5502</td>
<td>Fndtns Of Elementary &amp; Secondary School Counseling &amp; Guidance</td>
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</tr>
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<td>CPCE 5504</td>
<td>School Guidance Programs</td>
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</tr>
<tr>
<td>CPCE 5550</td>
<td>Organization And Administration Of Counseling Programs</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 404</td>
<td>Education of the Exceptional Child and Youth (5404 section)</td>
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Select one of the following:

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC-R&amp;P 5510</td>
<td>Child Behavior And Development and Adolescent Development And The School (Elementary and K-12 counselors only)</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-R&amp;P 5512</td>
<td>Life Span Human Development (Secondary and K-12 counselors only)</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-R&amp;P 5513</td>
<td>Life Span Human Development (Elementary, Secondary, and K-12 counselors)</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-C&amp;I 5512</td>
<td>Strategies For Effective Classroom Management (Required for those who do not hold a current teaching certificate.)</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-C&amp;I 5517</td>
<td>Teaching Methods And Practices (Required for those who do not hold a current teaching certificate.)</td>
<td>3</td>
</tr>
</tbody>
</table>
Curriculum and Instructional Leadership - Graduate Programs

Educational Specialist: Curriculum and Instruction (p. 1152)
Educational Specialist: Language and Literacy (p. 1154)
Master of Arts: Curriculum and Instruction (p. 1157)
Master of Arts: Language and Literacy (p. 1161)
Master of Arts: Special Education (p. 1162)
Master of Arts: Teaching (MAT) (p. 1164)
Graduate Certificate in Reading Intervention (p. 1168)
Educational Specialist: Curriculum and Instruction

Program Goal
The goal of the educational specialist degree in Curriculum and Instruction with an emphasis in Curriculum and Instruction Leadership is to build on the master’s degree in curriculum and instruction on the theme of Transformative Leadership. The degree is designed for educators who want to assume positions as curriculum leaders.

Most candidates will have a degree in an area related to the field of education. Their faculty advisor, however, may require additional course work. This would depend upon the applicant's background, previous coursework and anticipated school role.

The Educational Specialist Degree in Curriculum and Instruction is designed to further enhance the skills and knowledge necessary to collaborate with other educators and lead in the development of learning opportunities which:

• promote the learning, growth and development of all students, valuing the differences that diverse learners bring to the school experience;
• demonstrate understanding of how knowledge is created, organized and linked to other disciplines;
• engage in curricular interactions with diverse learners through multiple pathways;
• equitably manage and monitor student learning;
• promote reflective teaching and decision-making;
• encourage the development of learning communities to include education professionals, parents and other community members.

Admission Requirements
Applications are accepted on a rolling basis and may be obtained from and submitted to the Office of Admissions.

Students are eligible for full admission to the Ed.S. program in Curriculum and Instruction if they have met two of the three following requirements:

• Master’s degree in an educational area with a minimum grade point average of 3.25
• Two years of teaching experience
• Graduate Record Exam (GRE) with score of 155 or better on Verbal component

Student Learning Outcomes
1. Critical thinking: Candidates demonstrate critical thinking through interpretation, problem solving, evaluation, and analysis.
2. Oral and written communication: Candidates express their thinking clearly and professionally in written and oral communication.
3. Fairness and equity: Candidates treat students equitably and demonstrate the belief that all students can learn.
4. Content knowledge and pedagogy: Candidates demonstrate mastery of their content and expertise in pedagogy.
5. Create learning environments and effective assessment: Candidates demonstrate the ability to create quality learning environments
6. and to effectively assess student learning.
7. Self-reflection that leads to continual improvement: Candidates demonstrate a commitment to continual improvement through self-reflection.
8. Collaboration with colleagues and other stakeholders: Candidates demonstrate the ability to work collaboratively with other professionals and stakeholders, such as parents and the community.

Program Requirements
A minimum of 36 hours of approved graduate work beyond the master’s degree is required for the educational specialist degree, with at least 60 percent of the courses numbered 5500 and above. Any courses on the 300 and 400 level included in the Ed.S. program of study must be accepted by the advisor and taken for graduate credit.

As soon as possible after admission to graduate study, students should seek to meet with the assigned faculty advisor to plan a program of study. This program must be filed in the Education Student Services Office and approved by the dean’s representative during the student’s first semester. A majority (80%) of new coursework applied to any graduate degree to be completed at UMKC must be taken at UMKC. Credits of transfer courses may be applied to the program if approved by the student’s advisor and the Division Chair. Courses may be reviewed by a content specialist prior to advisor or Chair approval for similarity in content between courses. Transfer credit not included in a master’s degree must not be more than 7 years old at the time of degree completion or graduation.

UMKC credit more than seven years old at the time of degree completion that has not been included on a master’s degree is not applicable to an Ed.S. degree unless validated to the satisfaction of the School of Education and the School of Graduate Studies. A maximum of 30 percent of coursework
on the student's program of study may be validated under this procedure. All validation must be completed by the end of the final semester of enrollment.

**Curriculum Summary**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC-R&amp;P 5513</td>
<td>Life Span Human Development</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-C&amp;I 5570</td>
<td>Curriculum And Instruction In Technology</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-C&amp;I 5505</td>
<td>Introduction To Curriculum Theory</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-C&amp;I 5506</td>
<td>Curriculum Design</td>
<td>3</td>
</tr>
<tr>
<td>or EDUC-C&amp;I 5640</td>
<td>Curriculum and Teaching for the College Classroom</td>
<td></td>
</tr>
<tr>
<td>EDUC-SP 5513</td>
<td>Methods II: Teaching Students with Mild/Moderate Cross-Categorical Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-C&amp;I 5618</td>
<td>Survey Of Research In Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-C&amp;I 5620</td>
<td>Seminars In Theories Related To Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-C&amp;I 5596</td>
<td>Classroom Assessment</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-R&amp;P 5505</td>
<td>Statistical Methods I</td>
<td>3</td>
</tr>
<tr>
<td>or EDUC-R&amp;P 5508</td>
<td>Principles And Methods Of Research</td>
<td></td>
</tr>
<tr>
<td>EDUC-C&amp;I 5560</td>
<td>Teaching And Learning In The Urban Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5621</td>
<td>Practicum In Curriculum And Instruction</td>
<td>6</td>
</tr>
<tr>
<td><strong>OR</strong></td>
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<td></td>
</tr>
<tr>
<td>EDUC 5621</td>
<td>Practicum In Curriculum And Instruction</td>
<td>3</td>
</tr>
<tr>
<td>AND</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDUC-C&amp;I 5595</td>
<td>Action Research For Practitioners</td>
<td>3</td>
</tr>
</tbody>
</table>

**Residency**

One full-time summer session or one full-time semester is required.

**Program Committee**

Final program planning is the joint responsibility of the candidate, the advisor and the candidate's committee. The committee shall consist of three faculty members, all from curriculum and instruction or two faculty members from curriculum and instruction and a faculty member from another division of the School of Education or University.

This committee and the candidate shall work cooperatively in reviewing progress in the program, planning the culminating experience and making arrangements for the comprehensive examination.

**Comprehensive Examination**

Students are required to pass a comprehensive examination in curriculum upon the completion of the culminating experience. This four-hour examination may be either written or oral, at the discretion of the committee.
Educational Specialist: Language and Literacy

Program Mission and Vision
The Language and Literacy program views literacy from a critical sociocultural perspective. That is, we see language and literacy as context-specific, socially, and culturally constructed and situated processes. Thus, we prepare PK-12 literacy educators and leaders to evaluate their teaching contexts in order to synthesize and implement high-leverage, culturally responsive teaching and assessment practices for diverse literacy learners that will directly impact student achievement. We emphasize preparing educators to advocate for students. In other words, we focus on connecting our work as language and literacy teachers with direct collaborative action that positively impacts students, families, and communities.

Program Learning Outcomes
The Education Specialist (Ed.S.) Degree in Language and Literacy prepares current teachers, reading specialists, Title I teachers, literacy coaches, and other education professionals for specialized expertise and leadership in literacy. The objectives of the Ed. S. in Language and Literacy are:

1. Candidates will synthesize appropriate knowledge related to literacy and literacy instruction including:
   a. Appropriate cognitive, linguistic, motivational, and sociocultural theories
   b. Knowledge of the sociocultural nature and context of literacy instruction
   c. High-leverage, culturally responsive teaching practices
2. Candidates will implement appropriate practices related to literacy and literacy instruction including:
   a. Assessment and evaluation of diverse learners
   b. High-leverage Instructional practices
   c. Leadership within a classroom, school, and/or community
3. Candidates will impact student success in literacy as demonstrated by:
   a. Effective professional practice
   b. Achievement of students
   c. Positive dispositions that promote equity
4. Candidates will become advocates for their students by means of:
   a. Developing interventions and programming at the classroom, school, and community levels to meet the needs of diverse learners
   b. Research that furthers colleagues understandings of literacy education

Requirements for Admission
Candidate must:

- Be admitted into the UMKC School of Graduate Studies
- Possess a Master’s degree and a 3.0 GPA
- Possess a teaching certificate
- Have at least two years of teaching experience (or equivalent)

Student Learning Outcomes
1. Synthesize Theory: Develop critical understanding of major theories and research that describe the cognitive, linguistic, motivational, and sociocultural foundations of reading and writing development and the components of literacy and language development.
2. Synthesize Teaching Practices: Demonstrate understanding of the major components of reading and writing processes and describe how these processes are developed in different instructional approaches and classroom contexts.
3. Synthesize Contextual Factors: Examine the intersections among cultural diversity, culturally responsive instructional practices, and teacher expectations in regards to literacy achievement.
4. **Implement Assessment**: Understand the purposes, strengths and limitations of different literacy assessments. This includes selection, administration, and interpretation of assessments to equitably evaluate the literacy needs of diverse learners and communicate evaluation results with a variety of audiences.

5. **Impact Achievement**: Collaborate with various stakeholders to plan integrated, comprehensive, and balanced instructional activities with a range of texts to support literacy instruction for diverse learners.

6. **Impact Equity**: Display positive dispositions about the strengths of culturally and linguistically diverse students and families by enhancing professional practice in a given context as a literacy leader and advocate.

7. **Advocate Practice**: Develop and implement strategies for effective literacy instruction and professional development in schools, districts, and communities.

8. **Advocate Research**: Share research findings to influence local, state, or national policy decisions.

**Curriculum**

A minimum of 60 post-B.A. hours are required including a minimum of 30 credit hours beyond the master's degree.

**Curriculum Summary**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading Concentration</td>
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<tr>
<td>Supporting Area(s)</td>
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<td>9-12</td>
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<tr>
<td>Practicum</td>
<td></td>
<td>6-12</td>
</tr>
<tr>
<td>Humanistic and Behavioral Studies</td>
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<td>6-12</td>
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<tr>
<td>Total (minimum)</td>
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**Curriculum Detail**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reading Concentration and Practicum (21-42 credit hours)</strong></td>
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</tr>
<tr>
<td>EDRD 5439</td>
<td>Language and Literacy Across the Disciplines</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5501</td>
<td>Teaching Of Reading</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5502</td>
<td>Early Literacy and Language Development</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5510</td>
<td>Adolescent Practicum in Literacy Assessment and Intervention</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5520</td>
<td>Elementary Practicum in Literacy Assessment and Intervention</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5511</td>
<td>Advanced Literacy Assessment and Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5515</td>
<td>Seminar In Reading</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5530</td>
<td>Reading Instruction for K-12 English Language Learners</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5541</td>
<td>Literacy for Adult Learners</td>
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</tr>
<tr>
<td>EDRD 5601</td>
<td>Organizing And Guiding The Reading Program</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5650</td>
<td>Dyslexia and Related Learning Differences</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-C&amp;I 5523</td>
<td>Advanced Literature For Children</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-C&amp;I 5640</td>
<td>Curriculum and Teaching for the College Classroom</td>
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<tr>
<td>EDUC-C&amp;I 5690</td>
<td>Special Problems</td>
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<td><strong>Supporting Education Courses (6-12 credit hours)</strong></td>
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<td>EDUC-SP 5515</td>
<td>Applied Behavior Analysis for Teachers: Understanding and Applying Theories of Behavior</td>
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<tr>
<td>EDUC-SP 5516</td>
<td>Collaborating with Families and Other Professionals</td>
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<tr>
<td>TCH-ED 5404</td>
<td>Education of the Exceptional Child and Youth</td>
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<tr>
<td><strong>Humanistic and Behavioral Studies (6-9 credit hours)</strong></td>
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<tr>
<td>EDUC-R&amp;P 5510</td>
<td>Child Behavior And Development</td>
<td>3</td>
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<tr>
<td>EDUC-R&amp;P 5512</td>
<td>Adolescent Development And The School</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-UL 5525</td>
<td>Cultural Foundations Of Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-UL 5526</td>
<td>Philosophical Foundations Of Education</td>
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</tr>
<tr>
<td>EDUC-UL 5527</td>
<td>Historical Foundations Of Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-UL 5528</td>
<td>Sociological Foundations Of Education</td>
<td>3</td>
</tr>
</tbody>
</table>
Requirements for Graduation
Candidates must pass an oral comprehensive exam that represents a summation of their own original research.
Master of Arts: Curriculum and Instruction

Degree Overview
The Master of Arts in Curriculum and Instruction (MA in C&I) is a degree sought by teachers who wish to deepen their knowledge of effective pedagogical practice to improve their students' learning. This degree has five options from which to choose:

- General
- Early Childhood
- Multicultural Education
- Subject Matter Specialty
- Teaching English as a Second Language

Requirements for Admission
Students admitted to School of Education graduate programs are governed by School of Education requirements and those of the School of Graduate Studies. Students seeking advanced degrees should consult the School of Graduate Studies section for regulations applicable to all graduate students.

Criteria for admission to a Master of Arts in Curriculum and Instruction degree program include the following:

- Baccalaureate degree from an accredited institution
- 3.0 GPA or higher (on a 4-point scale)
- One-page statement of interest/purpose
- Two letters of recommendation

Student Learning Outcomes
1. Evaluate instructional programs using knowledge of curriculum theory.
2. Interpret and design multiple methods of assessment for the purposes of engaging students in learning, monitoring learning, and guiding decision making.
3. Identify and describe concepts of individual, social, and cultural identities as they relate to planning for teaching and learning in an urban setting.
4. Conduct research that includes collection and analysis of data on at least one variable that has potential to influence student achievement.

Degree Requirements
Core Courses (meet with advisor before enrolling)
The core for all options is made up of 18 credit hours of coursework from six categories: curriculum theory/design, foundations of education, human development, research, assessment, and culture and diversity. Additionally, all MA in C&I options require a minimum of 12 credit hours devoted to a particular area of interest and a culminating experience of action research (3 credit hours).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Curriculum Theory/Design</strong></td>
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<tr>
<td></td>
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<tr>
<td>EDUC-C&amp;I 5505</td>
<td>Introduction To Curriculum Theory</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-C&amp;I 5506</td>
<td>Curriculum Design</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Foundations of Education</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td></td>
</tr>
<tr>
<td>EDUC-UL 5525</td>
<td>Cultural Foundations Of Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-UL 5526</td>
<td>Philosophical Foundations Of Education</td>
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<tr>
<td>EDUC-UL 5527</td>
<td>Historical Foundations Of Education</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Human Development</strong></td>
<td></td>
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<tr>
<td></td>
<td>Select one of the following:</td>
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<tr>
<td>EDUC-R&amp;P 5502</td>
<td>Advanced Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-R&amp;P 5510</td>
<td>Child Behavior And Development</td>
<td></td>
</tr>
<tr>
<td>EDUC-R&amp;P 5512</td>
<td>Adolescent Development and the School</td>
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<td>EDUC-R&amp;P 5513</td>
<td>Life Span Human Development</td>
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<td></td>
<td><strong>Research</strong></td>
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<td>Select one of the following:</td>
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</tbody>
</table>
EDUC-R&P 5505  Statistical Methods I
EDUC-R&P 5508  Principles And Methods Of Research
EDUC-C&I 5544  Theory and Research in Second Language Teaching and Learning

**Assessment**
Select one of the following: 3
- EDUC-C&I 5518  Assessment of Diverse Learners, Engagement and Motivation
- EDUC-C&I 5596  Classroom Assessment
- EDUC-SP 5508  Assessment for Special Educators
- EDUC-R&P 5522  Principles Of Testing
- TCH-ED 5442  Observation, Assessment & Screening in Early Childhood Classrooms

**Culture and Diversity**
Select one of the following: 3
- EDUC-C&I 5561  Teaching Diverse Populations In Today's Classrooms
- EDUC-C&I 5514  Overview of Culturally Responsive Pedagogy
- EDUC-C&I 5519  Discipline Specific Pedagogy for Diverse Learners
- TCH-ED 5438  Culturally Responsive Strategies for Teaching Diverse Learners

**Culminating Experience**
One required: 3
- EDUC-C&I 5595  Action Research For Practitioners

**General Emphasis**

**Student Learning Outcomes**

Students graduating from this program will:

- 1. Evaluate instructional programs using knowledge of curriculum theory.
- 2. Interpret and design multiple methods of assessment for the purposes of engaging students in learning, monitoring learning, and guiding decision making.
- 3. Identify and describe concepts of individual, social, and cultural identities as they relate to planning for teaching and learning in an urban setting.
- 4. Conduct research that includes collection and analysis of data that has potential to influence student achievement.

**Program Requirements**
The general option is the most flexible and allows students to create a program to meet their desire to become an accomplished teacher. This degree may be pursued concurrently with teacher certification. Additional coursework is required for certification. In addition to the core courses, students take coursework related to their educational role and supporting coursework in curriculum and instruction.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Courses</td>
<td>Core Courses (meet with adviser before enrolling)</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Courses Related to the Student’s Educational Role</td>
<td></td>
</tr>
<tr>
<td>Approved coursework may be taken in any college or school of the University</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>36</td>
</tr>
</tbody>
</table>

1 They should form a coherent body of work related to the student’s educational goals.

**Early Childhood Emphasis**

**Student Learning Outcomes**

Students graduating from this program will:

- 1. Evaluate instructional programs using knowledge of curriculum theory.
- 2. Interpret and design multiple methods of assessment for the purposes of engaging students in learning, monitoring learning, and guiding decision making.
• 3. Identify and describe concepts of individual, social, and cultural identities as they relate to planning for teaching and learning in an urban setting.
• 4. Conduct research that includes collection and analysis of data on at least one variable that has potential to influence student achievement.

Program Requirements
The following courses are required in addition to the core courses listed.

The early childhood emphasis is for those who hold elementary or early childhood teacher certification, or for those who are interested in the field of early care and education. The master's degree alone does not lead to certification in early childhood. Additional courses are required to obtain certification to teach early childhood education. For current program plan, go to http://education.umkc.edu/programs/view/10 and check on Early Childhood.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC-C&amp;I 5531</td>
<td>Mathematics Learning Difficulties: Identification and Intervention</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-C&amp;I 5578</td>
<td>Play In Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-C&amp;I 5579</td>
<td>Issues In Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-C&amp;I 5506</td>
<td>Curriculum Design</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-C&amp;I 5514</td>
<td>Overview of Culturally Responsive Pedagogy</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5501</td>
<td>Teaching Of Reading</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5502</td>
<td>Early Literacy and Language Development</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5530</td>
<td>Reading Instruction for K-12 English Language Learners</td>
<td>3</td>
</tr>
</tbody>
</table>

Subject Matter Emphasis
Student Learning Outcomes
Students graduating from this program will:

• 1. Evaluate instructional programs using knowledge of curriculum theory.
• 2. Interpret and design multiple methods of assessment for the purposes of engaging students in learning, monitoring learning, and guiding decision making.
• 3. Identify and describe concepts of individual, social, and cultural identities as they relate to planning for teaching and learning in an urban setting.
• 4. Conduct research that includes collection and analysis of data that has potential to influence student achievement.

Subject Matter Specialty Options
Subject Matter Specialty option focus areas include art, foreign languages, mathematics, and social studies. In addition to the core courses, students take coursework related to their area of certification. For each of the focus areas, the student works with an advisor to establish a program of study designed for the specific subject matter specialty. For foreign languages, see http://cas.umkc.edu/foreignlanguages/ and contact Alice Reckley (reckleya@umkc.edu), advisor.

Secondary Art

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC-C&amp;I 5513</td>
<td>Effective Communication In The Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-C&amp;I 5515</td>
<td>Integrated Arts As A Model For Classroom Instruction</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-C&amp;I 5523</td>
<td>Advanced Literature For Children</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-SP 5516</td>
<td>Collaborating with Families and Other Professionals</td>
<td>3</td>
</tr>
<tr>
<td>Graduate-Level Art History or Studio Art Course</td>
<td>3</td>
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</table>

Total Credits
15

Secondary Mathematics

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>EDUC-C&amp;I 5511</td>
<td>Developing Multidisciplinary Problem Solving Skills</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-C&amp;I 5536</td>
<td>Specialized Secondary School Curriculum Mathematics</td>
<td>3</td>
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</tbody>
</table>
Three additional courses to be determined with faculty advisor.  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EDU-C&amp;I 5504</td>
<td>Social Studies in the Schools</td>
<td>3</td>
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<tr>
<td>GEOG 5509</td>
<td>Urban Geography</td>
<td>3</td>
</tr>
<tr>
<td>Additional credit hours</td>
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<tr>
<td>Total Credits</td>
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<td></td>
</tr>
</tbody>
</table>

**Secondary Social Studies**

**Student Learning Outcomes**

Students graduating from this program will:

- 1. Evaluate instructional programs using knowledge of curriculum theory.
- 2. Interpret and design multiple methods of assessment for the purposes of engaging students in learning, monitoring learning, and guiding decision making.
- 3. Identify and describe concepts of individual, social, and cultural identities as they relate to planning for teaching and learning in an urban setting.
- 4. Conduct research that includes collection and analysis of data on at least one variable that has potential to influence student achievement.

**Program Requirements**

The following courses are required in addition to the core courses listed:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU-C&amp;I 5545</td>
<td>Linguistics for ESOL Teachers</td>
<td>3</td>
</tr>
<tr>
<td>EDU-C&amp;I 5546</td>
<td>Intercultural communication</td>
<td>3</td>
</tr>
<tr>
<td>EDU-C&amp;I 5547</td>
<td>Second Language Acquisition</td>
<td>3</td>
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<tr>
<td>EDU-C&amp;I 5548</td>
<td>English As A Second Language In Content Areas</td>
<td>3</td>
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<tr>
<td>EDU-C&amp;I 5549</td>
<td>Practicum In English As A Second Language</td>
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<tr>
<td>EDU-C&amp;I 5542</td>
<td>Methods of Teaching English as a Second Language</td>
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<tr>
<td>Total Credits</td>
<td>18</td>
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</tbody>
</table>

Courses must be approved by a faculty advisor.
Master of Arts: Language and Literacy

Student Learning Outcomes

1. **Synthesize Theory**: Develop critical understanding of major theories and research that describe the cognitive, linguistic, motivational, and sociocultural foundations of reading and writing development and the components of literacy and language development.

2. **Synthesize Teaching Practices**: Demonstrate understanding of the major components of reading and writing processes and describe how these processes are developed in different instructional approaches and classroom contexts.

3. **Synthesize Contextual Factors**: Examine the intersections among cultural diversity, culturally relevant instructional practices, and teacher expectations in regards to literacy achievement.

4. **Implement Assessment**: Understand the purposes, strengths and limitations of different literacy assessments. This includes selection, administration, and interpretation of assessments to equitably evaluate the literacy needs of diverse learners and communicate evaluation results with a variety of audiences.

5. **Implement Instruction**: Design, facilitate, lead, and evaluate a routine sequence of integrated, comprehensive, and balanced research-based literacy lessons for a struggling reader.

6. **Implement Leadership**: Develop and enhance professional practice as a literacy leader and advocate for students with diverse needs.

7. **Impact Achievement**: Collaborate with various stakeholders to plan integrated, comprehensive, and balanced instructional activities with a range of texts to support literacy instruction for diverse learners.

8. **Impact Engagement**: Use professional knowledge, assessment, and inquiry to adjust literacy instruction and the environment to promote learner motivation, engagement, and equity.

9. **Advocate for Equity**: Recognize and display positive dispositions about the strengths of culturally and linguistically diverse students and families.

Program Requirements

This degree can usually be completed within five semesters. Coursework is in hybrid format (one online course, one hybrid course each semester except for EDRD 5520).

<table>
<thead>
<tr>
<th>Code</th>
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<tr>
<td>Specific Reading Teaching Knowledge Requirements (21-24 hours)</td>
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<tr>
<td>EDRD 5439</td>
<td>Language and Literacy Across the Disciplines</td>
<td>3</td>
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<tr>
<td>EDRD 5501</td>
<td>Teaching Of Reading</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5502</td>
<td>Early Literacy and Language Development</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5510</td>
<td>Adolescent Practicum in Literacy Assessment and Intervention</td>
<td>3</td>
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<tr>
<td>EDRD 5511</td>
<td>Advanced Literacy Assessment and Evaluation</td>
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<tr>
<td>EDRD 5520</td>
<td>Elementary Practicum in Literacy Assessment and Intervention (*Culminating Practicum)</td>
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<tr>
<td>EDRD 5601</td>
<td>Organizing And Guiding The Reading Program</td>
<td>3</td>
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<tr>
<td>EDRD 5650</td>
<td>Dyslexia and Related Learning Differences</td>
<td>3</td>
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<tr>
<td>EDRD 5530</td>
<td>Reading Instruction for K-12 English Language Learners</td>
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<tr>
<td>EDUC-C&amp;I 5523</td>
<td>Advanced Literature For Children</td>
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<tr>
<td>EDRD 5541</td>
<td>Literacy for Adult Learners</td>
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<tr>
<td>Professional Requirements (9-15 credit hours)</td>
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<tr>
<td>EDUC-SP 5515</td>
<td>Applied Behavior Analysis for Teachers: Understanding and Applying Theories of Behavior</td>
<td>3</td>
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<tr>
<td>EDUC-SP 5516</td>
<td>Collaborating with Families and Other Professionals</td>
<td>3</td>
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<tr>
<td>TCH-ED 5404</td>
<td>Education of the Exceptional Child and Youth</td>
<td>3</td>
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<tr>
<td>EDUC-R&amp;P 5510</td>
<td>Child Behavior And Development</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-R&amp;P 5512</td>
<td>Adolescent Development And The School</td>
<td>3</td>
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<tr>
<td>Total Credits</td>
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</table>
Master of Arts: Special Education

Admission Requirements

Candidates entering the master's program with emphasis in MM/CC disabilities must hold a baccalaureate degree and have an overall 3.0 GPA or higher on a 4.0 scale and successfully complete an interview with program faculty. Official admission to the University of Missouri-Kansas City graduate school is required. Admission deadlines are at least 10 business days prior to the beginning of each new term.

The Master of Arts in Special Education degree program leads to initial teacher certification in Special Education in the state of Missouri. The focus for certification is mild/moderate cross-categorical disabilities. This degree is sought by those who wish to enhance their knowledge and skills in teaching children and adolescents with exceptional learning needs, to serve as advocates for children and their families, and to work collaboratively with colleagues.

Student Learning Outcomes

Students graduating from this program will:

- 1. Understand how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and designs and implements developmentally appropriate and challenging learning experiences.
- 2. Understand individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.
- 3. Work with others to create environments that support individual and collaborative learning, and that encourage positive social interaction, active engagement in learning, and self-motivation.
- 4. Understand the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make these aspects of the discipline accessible and meaningful for learners to assure mastery of the content.
- 5. Understand how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues.
- 6. Understand and use multiple methods of assessment to engage learners in their own growth, to monitor learner progress, and to guide the teacher's and learner's decision making.
- 7. Plan instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of learners and the community context.
- 8. Understand and use a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways.
- 9. Engage in ongoing professional learning and use evidence to continually evaluate their practice, particularly the effects of their choices and actions on others (learners, families, other professionals, and the community), and adapt practice to meet the needs of each learner.
- 10. Seek appropriate leadership roles and opportunities to take responsibility for student learning, to collaborate with learners, families, colleagues, other school professionals, and community members to ensure learner growth, and to advance the profession.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
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<tr>
<td>TCH-ED 5314</td>
<td>Cultural Diversity and Teaching English Language Learners</td>
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<tr>
<td>EDUC-R&amp;P 5502</td>
<td>Advanced Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 5385</td>
<td>Teaching and Learning with Technology</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 5413</td>
<td>Mathematics in the Elementary School I</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 5438</td>
<td>Culturally Responsive Strategies for Teaching Diverse Learners</td>
<td>3</td>
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<tr>
<td>TCH-ED 5463</td>
<td>Literacy Intervention across the Disciplines</td>
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<td>EDRD 5439</td>
<td>Language and Literacy Across the Disciplines</td>
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<tr>
<td>EDRD 5502</td>
<td>Early Literacy and Language Development</td>
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<tr>
<td>EDRD 5501</td>
<td>Teaching Of Reading</td>
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<tr>
<td>EDUC-C&amp;I 5523</td>
<td>Advanced Literature For Children</td>
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<tr>
<td>EDUC-C&amp;I 5531</td>
<td>Mathematics Learning Difficulties: Identification and Intervention</td>
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<td>EDUC-R&amp;P 5512</td>
<td>Adolescent Development and the School</td>
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<tr>
<td>EDUC-SP 5506</td>
<td>Special Education Law, Individualized Education Programs (IEP's), and Transition</td>
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<tr>
<td>EDUC-SP 5507</td>
<td>Introduction To Mild/Moderate Cross-Categorical Disabilities</td>
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<tr>
<td>EDUC-SP 5508</td>
<td>Assessment for Special Educators</td>
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<tr>
<td>EDUC-SP 5509</td>
<td>Cognition &amp; Lang Dev In Mild/Mod Cross-Categorical Disabilities</td>
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<tr>
<td>Course Code</td>
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<td>EDUC-SP 5510</td>
<td>Practicum in Special Education</td>
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<td>Practicum II – Special Education</td>
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<tr>
<td>EDUC-SP 5512</td>
<td>Methods I: Introduction to Teaching Students with Mild/Moderate Cross-Categorical</td>
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<td>EDUC-SP 5513</td>
<td>Methods II: Teaching Students with Mild/Moderate Cross-Categorical Disabilities</td>
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<tr>
<td>EDUC-SP 5514</td>
<td>Understanding and Addressing Challenging Behavior in the Classroom</td>
<td>3</td>
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<td>EDUC-SP 5515</td>
<td>Applied Behavior Analysis for Teachers: Understanding and Applying Theories of Behavior</td>
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<td>Collaborating with Families and Other Professionals</td>
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<td>EDUC-SP 5570</td>
<td>Student Teaching in Special Education</td>
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<td>EDUC-UL 5525</td>
<td>Cultural Foundations Of Education</td>
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<td>EDUC-UL 5526</td>
<td>Philosophical Foundations Of Education</td>
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<td>EDUC-UL 5528</td>
<td>Sociological Foundations Of Education</td>
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<td>EDUC-C&amp;I 5595</td>
<td>Action Research For Practitioners</td>
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</table>
Master of Arts in Teaching (MAT)

The Master of Arts in Teaching degree program prepares teacher candidates for teaching in urban settings through coursework focused on culturally and linguistically diverse learners. Preparation for teaching occurs through integrated coursework and field experiences that require the application of theoretical and practical knowledge.

The MAT allows students who have an undergraduate degree in a content area to earn a master’s Degree at the same time they are gaining certification to teach at the middle or secondary school level. The MAT is open to students desiring certification in English, Language Arts, Mathematics, Social Science, Physics (single or unified), Chemistry (single or unified), Earth Science (single or unified) or Biology (single or unified).

Student Learning Outcomes

Students graduating from this program will:

1. Understand how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and designs and implements developmentally appropriate and challenging learning experiences.
2. Understand individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.
3. Work with others to create environments that support individual and collaborative learning, and that encourage positive social interaction, active engagement in learning, and self-motivation.
4. Understand the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make these aspects of the discipline accessible and meaningful for learners to assure mastery of the content.
5. Understand how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues.
6. Understand and use multiple methods of assessment to engage learners in their own growth, to monitor learner progress, and to guide the teacher’s and learner’s decision making.
7. Plan instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of learners and the community context.
8. Understand and use a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways.
9. Engage in ongoing professional learning and use evidence to continually evaluate their practice, particularly the effects of their choices and actions on others (learners, families, other professionals, and the community), and adapt practice to meet the needs of each learner.
10. Seek appropriate leadership roles and opportunities to take responsibility for student learning, to collaborate with learners, families, colleagues, other school professionals, and community members to ensure learner growth, and to advance the profession.

Program Description

The MAT is designed for students who have an undergraduate degree. Completion of this program leads to a Master of Arts in Teaching degree with certification at the middle or secondary level. Contingent upon satisfactory completion of all degree coursework, key assessments, and state testing requirements, teacher candidates may be eligible for recommendation by Teacher Education faculty for teacher certification in Missouri.

Program Requirements

The UMKC SOE division of Teacher Education and Curriculum Studies subscribes to the Missouri Teacher Standards (MoTS), which can be found on the website of the Missouri Department of Elementary and Secondary Education - https://dese.mo.gov/.

The School of Education requires all teacher candidates to have current professional liability insurance during all field experiences and student teaching. Students must provide verification of current professional liability insurance to the Educational Field Experiences office. Students can obtain this insurance by becoming a “student member” of educational organizations (e.g., MSTA or NEA) that provides such insurance or by purchasing coverage through an independent insurance agent.

Candidates admitted to the Professional Teacher Education Program must uphold all academic and social regulations and policies established by the School of Education. Candidates are subject to any Missouri legislative action or State Board of Education policy that may become effective during the lifetime of this catalog. The responsibility of the School of Education is to recommend qualified candidates for licensure to the state and to ensure our candidates meet or exceed these requirements. While the degree programs outlined in the catalog are aligned with state requirements, certification is dependent on both the degree requirements and successful completion of all state assessments required by the Missouri State Department of Elementary and Secondary Education.

A 3.00 cumulative GPA, 3.0 content GPA and 3.0 professional GPA are required at completion of the program. Grades of C or better are required in all professional education classes. Prospective students and teacher candidates should meet regularly with an academic advisor to determine specific course requirements.
Admission Requirements

- Undergraduate degree from an accredited university (transcript)
- **Subject matter (content courses) Admission Requirements**
  Subject matter admission requirements for each certification area are the same as corresponding BA in Middle School Education and BA in Secondary Education subject matter degree requirements.

  **Middle School Certification Areas**
  - Language Arts, Mathematics, Social Science, or Science

  **High School Certification Areas**
  - Art, English, Foreign Languages (French, German, Spanish), Mathematics, Social Science, or Science (select Biology, Chemistry, Earth Science, Physics, UNIFIED Biology, UNIFIED Chemistry, UNIFIED Earth Science, or UNIFIED Physics)

- A minimum grade of C in all content courses with an overall content GPA of 3.0
- Transcripts which document completion of all Missouri subject matter requirements (including Missouri General Education requirements)
- Two letters of recommendation that address the candidate's potential to be an educator
- Missouri State Police and FBI background check
- Candidate narrative statement describing the intentions and purposes for becoming a middle or high school teacher in a high-need school district
- Completion (with passing scores) of the Missouri Educator Gateway Assessments (MEGA):
  - Missouri Educator Profile (MEP)
  - Missouri General Education Assessment (MoGEA)
  - Missouri Content Assessment (MoCA)

Residency Requirement

A minimum of 32 credit hours must be completed at UMKC.

Special Notes

- Cohorts of candidates for the MAT are accepted for fall admission.
- The MAT is a licensure degree. For a non-licensure degree see our MA in Curriculum and Instruction (http://education.umkc.edu/academics/masters-degrees/master-of-arts-in-curriculum-and-instruction).
- MAT for K-12 Art and Foreign Languages (French, German, and Spanish) may be available soon.

Certification Requirements

- Complete DESE application for Initial PC license
- Pass the Missouri Educator Gateway Assessments (see above)
- Minimum GPA requirements: 3.00 cumulative, 3.00 content area, and 3.00 professional education coursework

Coursework

Coursework Common to both Middle School and Secondary Education

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>TCH-ED 5404</td>
<td>Education of the Exceptional Child and Youth</td>
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<td>EDUC-R&amp;P 5502</td>
<td>Advanced Educational Psychology</td>
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<tr>
<td>EDUC-R&amp;P 5512</td>
<td>Adolescent Development And The School</td>
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<tr>
<td>TCH-ED 5430</td>
<td>Analyzing Learning Environments in Urban Contexts</td>
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<td>TCH-ED 5312</td>
<td>Legal and Ethical Aspects of Teaching</td>
<td>3</td>
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<td>TCH-ED 5422</td>
<td>Practicum I - Middle and High School</td>
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<td>TCH-ED 5385</td>
<td>Teaching and Learning with Technology</td>
<td>3</td>
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<td>TCH-ED 5314</td>
<td>Cultural Diversity and Teaching English Language Learners</td>
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<td>EDRD 5439</td>
<td>Language and Literacy Across the Disciplines</td>
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<td>TCH-ED 5423</td>
<td>Practicum II - Middle and High School</td>
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<td>TCH-ED 5315</td>
<td>Assessment and Data Literacy</td>
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<td>Literacy Intervention across the Disciplines</td>
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<td>Culturally Responsive Strategies for Teaching Diverse Learners</td>
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<td>TCH-ED 5424</td>
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</table>
Select one educational foundations course: 3
- EDUC-UL 5525 Cultural Foundations Of Education
- EDUC-UL 5526 Philosophical Foundations Of Education
- EDUC-UL 5528 Sociological Foundations Of Education

Select one research methods course: 3
- EDUC-R&P 5505 Statistical Methods I
- EDUC-R&P 5508 Principles And Methods Of Research

Select one curriculum course: 3
- EDUC-C&I 5505 Introduction To Curriculum Theory
- EDUC-C&I 5506 Curriculum Design
- EDUC-C&I 5591 Curriculum & Instruction For The 21St Century

Select one assessment course: 3
- EDUC-C&I 5518 Assessment of Diverse Learners, Engagement and Motivation
- EDUC-C&I 5596 Classroom Assessment
- EDUC-R&P 5522 Principles Of Testing

Culminating experience for MAT: 3
- EDUC-C&I 5595 Action Research For Practitioners

Total Credits 51

Coursework for Middle School Education (select courses corresponding to your subject area).

<table>
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<tr>
<td>TCH-ED 5462</td>
<td>Middle School Philosophy and Organization</td>
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<td>TCH-ED 5461</td>
<td>Student Teaching In Middle School</td>
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<tr>
<td><strong>Language Arts</strong></td>
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<tr>
<td>TCH-ED 5432</td>
<td>Special Methods of Teaching English in Middle and High Schools</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 5396</td>
<td>English Language Study for Middle and High School Teachers</td>
<td>3</td>
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<tr>
<td>TCH-ED 5494</td>
<td>Seminar - English/Language Arts</td>
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<tr>
<td>TCH-ED 5482</td>
<td>Seminar in Teaching and Evaluating Writing</td>
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<tr>
<td><strong>Mathematics</strong></td>
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<td>TCH-ED 5433</td>
<td>Special Methods of Teaching Mathematics in Middle and High Schools</td>
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<td>TCH-ED 5493</td>
<td>Seminar - Mathematics</td>
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<td><strong>Science</strong></td>
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<td>TCH-ED 5470</td>
<td>Philosophy and History of Science and Technology</td>
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<td>TCH-ED 5435</td>
<td>Special Methods of Teaching Science in Middle and High Schools</td>
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<td><strong>Social Science</strong></td>
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<td>TCH-ED 5434</td>
<td>Seminar in Social Science Curriculum</td>
<td>3</td>
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<tr>
<td>TCH-ED 5436</td>
<td>Special Methods of Teaching Social Science in Middle and High Schools</td>
<td>3</td>
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<tr>
<td>TCH-ED 5496</td>
<td>Seminar — Social Science</td>
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Total semester credit hours for Middle School Language Arts 75
Total semester credit hours for Middle School Mathematics 69
Total semester credit hours for Middle School Science 57
Total semester credit hours for Middle School Social Science 57

Coursework for Secondary Education (select courses corresponding to your subject area).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCH-ED 5437</td>
<td>Student Teaching in Secondary School</td>
<td>3-9</td>
</tr>
<tr>
<td>or TCH-ED 5419</td>
<td>Student Teaching in Elementary School</td>
<td></td>
</tr>
</tbody>
</table>

Students in Art and Foreign Languages will take a total of 9 semester credit hours split between TCH-ED 5419 Student Teaching in Elementary School and TCH-ED 5437 Student Teaching in Secondary School.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ART 405</td>
<td>Practices in the Visual Arts Classroom</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 397</td>
<td>Practicum I - Elementary</td>
<td>1</td>
</tr>
<tr>
<td>or TCH-ED 5422</td>
<td>Practicum I - Middle and High School</td>
<td></td>
</tr>
<tr>
<td>TCH-ED 398</td>
<td>Practicum II – Elementary</td>
<td>1</td>
</tr>
<tr>
<td>or TCH-ED 5423</td>
<td>Practicum II - Middle and High School</td>
<td></td>
</tr>
<tr>
<td>TCH-ED 479</td>
<td>Practicum III – Elementary</td>
<td>1</td>
</tr>
<tr>
<td>or TCH-ED 5424</td>
<td>Practicum III - Middle and High School</td>
<td></td>
</tr>
<tr>
<td>TCH-ED 402</td>
<td>Integrated Arts</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 491</td>
<td>Seminar - Art Education</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 5419</td>
<td>Student Teaching in Elementary School</td>
<td>3-9</td>
</tr>
</tbody>
</table>

**English**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCH-ED 5432</td>
<td>Special Methods of Teaching English in Middle and High Schools</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 5396</td>
<td>English Language Study for Middle and High School Teachers</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 5494</td>
<td>Seminar - English/Language Arts</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 5482</td>
<td>Seminar in Teaching and Evaluating Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Foreign Languages**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>FRN-LNG 494</td>
<td>Methods of Teaching Foreign Languages</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 397</td>
<td>Practicum I - Elementary</td>
<td>1</td>
</tr>
<tr>
<td>or TCH-ED 5422</td>
<td>Practicum I - Middle and High School</td>
<td></td>
</tr>
<tr>
<td>TCH-ED 398</td>
<td>Practicum II – Elementary</td>
<td>1</td>
</tr>
<tr>
<td>or TCH-ED 5423</td>
<td>Practicum II - Middle and High School</td>
<td></td>
</tr>
<tr>
<td>TCH-ED 479</td>
<td>Practicum III – Elementary</td>
<td>1</td>
</tr>
<tr>
<td>or TCH-ED 5424</td>
<td>Practicum III - Middle and High School</td>
<td></td>
</tr>
<tr>
<td>FRN-LNG 459</td>
<td>Foreign Languages Teacher Education Seminar</td>
<td>3</td>
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</table>

**Mathematics**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>TCH-ED 5433</td>
<td>Special Methods of Teaching Mathematics in Middle and High Schools</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 5493</td>
<td>Seminar - Mathematics</td>
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</table>

**Science**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>TCH-ED 5470</td>
<td>Philosophy and History of Science and Technology</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 5435</td>
<td>Special Methods of Teaching Science in Middle and High Schools</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 5495</td>
<td>Seminar - Science</td>
<td>3</td>
</tr>
</tbody>
</table>

**Social Science**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCH-ED 5434</td>
<td>Seminar in Social Science Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 5436</td>
<td>Special Methods of Teaching Social Science in Middle and High Schools</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 5496</td>
<td>Seminar – Social Science</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total semester credit hours for Secondary Education - Art** | 69
**Total semester credit hours for Secondary Education - English** | 72
**Total semester credit hours for Secondary Education - Foreign Languages** | 69
**Total semester credit hours for Secondary Education - Mathematics** | 66
**Total semester credit hours for Secondary Education - Science** | 69
**Total semester credit hours for Secondary Education - Social Science** | 69
Graduate Certificate in Reading Intervention

Reading Intervention Graduate Certificate Overview

Who benefits from this certificate?

The Reading Intervention Graduate Certificate program is for certified teachers who are currently, or will be, working with struggling readers on a regular basis, providing an avenue for in-service teachers to gain additional expertise in a focused manner. Classes focus on improving the quality and effectiveness of instruction in Tier 2 and 3 reading.

What will the program look like?

Consisting of four courses, the certificate can be completed in just one year.

Special Reading Certificate

Who benefits from this certificate?

The Language and Literacy division regularly offers all courses needed for non-degree seeking students who are only seeking DESE Special Reading certification (not a Master’s or Education Specialist in Reading/Language & Literacy).

The program will be individually tailored to meet the needs of the student. Students select four of the following courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDRD 5439</td>
<td>Language and Literacy Across the Disciplines</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5501</td>
<td>Teaching Of Reading</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5502</td>
<td>Early Literacy and Language Development</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5510</td>
<td>Adolescent Practicum in Literacy Assessment and Intervention</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5511</td>
<td>Reading Assessment And Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5515</td>
<td>Seminar In Reading</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5520</td>
<td>Practicum in Reading</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 5427</td>
<td>Reading in the Secondary School</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5530</td>
<td>Reading Instruction for K-12 English Language Learners</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 5541</td>
<td>Literacy for Adult Learners</td>
<td>3</td>
</tr>
</tbody>
</table>
Educational Leadership, Policy and Foundations - Graduate Programs

Ed.D Educational Administration (p. 1170)
Educational Specialist: Educational Administration (p. 1173)
Master of Arts: Educational Administration (p. 1176)
Ed.D. - Educational Administration

The Doctorate of Education Degree (Ed.D.) in Educational Administration has been designed to meet the needs of aspiring administrators in urban and metropolitan school districts and colleges/universities. There are two focus areas within the Ed.D. program: PK-12 school administration and higher education administration.

Coordinators:
Loyce Caruthers Contact Information (http://education.umkc.edu/our-school/people/educational-leadership-policy-foundations-directory/lcaruthers), (816) 235-1044, caruthersl@umkc.edu (PK-12)
Michelle Maher Contact Information (http://education.umkc.edu/our-school/people/educational-leadership-policy-foundations-directory/mahermi) (816) 235-2325, mahermi@umkc.edu (Higher Education)

Doctor of Education: Focus in PK-12 Administration

Student Learning Outcomes

Upon completion of the PK-12 Education Administration Program, the student will:

- Apply knowledge, skills, and dispositions related to human resources and organizational development, communication with media, and critical skills for professional success as indicated by the comprehensive exam in the area of 21st Century School Principal and the personal profile of educational leadership.
- Demonstrate the ability to facilitate and engage in activities that use best practices and sound educational research to improve instructional programs with self-reflection on research and investigation of the opportunity gap.
- Employ program evaluation theory, concepts, and standards within school and community settings by developing and implementing a program evaluation project.
- Deconstruct educational theory formation and its relationship to curriculum and instruction.
- Integrate theory and research related to human resources, organizational, and educational leadership in school practices as indicated by the comprehensive exam in the areas of 21st Century Principal and Instructional Leader.
- Demonstrate knowledge, dispositions, and skills that relate to issues of social justice, fairness, and respect for others as indicated by the comprehensive exam in the areas of Democratic Education and 21st Century School Principal, Investigation of the Achievement Gap, and Personal Leadership Profile.

The Doctorate of Education in PK-12 Educational Administration program is designed to expand the content competencies and applied leadership skills of candidates in educational leadership careers in elementary, middle, and secondary school settings, as well as in central office administration. Curriculum focuses on current and future educational challenges to enhance the knowledge and skill development of public school leaders in their positions, incorporating strategic planning, collaborative problem solving, interpersonal and inter-group functioning, technological proficiency, and effective communication.

Criteria for Admission to PK-12 Focus

1. Completed UMKC application.
2. Official transcripts from each college attended.
3. Master's degree or Educational Specialist degree or equivalent from an accredited institution with G.P.A. of at least 3.65 in Education Administration. (Master's in other fields may be provisionally accepted.)
4. Graduate Record Examination within the last five years: verbal, quantitative, and analytical writing.
5. Four professional or academic letters of reference.
6. An autobiographical statement (500 words or less) that includes your professional goals and how the doctoral degree will help you in achieving these goals, and a description of some of your leadership accomplishments.
7. A writing sample, which gives evidence of your writing ability. The sample may be a previous course paper, a chapter from thesis, a published article, etc. Sent copies of documents will not be returned.
8. Successful completion of three hours or equivalent of EDUC-R&P 5505 -and- three hours or equivalent of EDUC-R&P 5508 with a grade of B or higher.
Curriculum
The Doctorate of Education program consists of 33 hours of inter-disciplinary course work and a 9 hour Applied Research Dissertation Project. The Doctoral Applied Research Study will include the identification of a study to be conducted that is grounded in educational policy in the public arena. A theoretical construct for the study will be developed including a research design, a review of the literature, and a presentation of the findings of the study in a public setting as well as to the doctoral committee. It is expected that students will complete this program during a four year period of time.

Professional Standards for Educational Leaders

Standard 1. Mission, Vision, and Core Values
Effective educational leaders develop, advocate, and enact a shared mission, vision, and core values of high-quality education and academic success and well-being of each student.

Standard 2. Ethics and Professional Norms
Effective educational leaders act ethically and according to professional norms to promote each student’s academic success and well-being.

Standard 3. Equity and Cultural Responsiveness
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Standard 7. Professional Community for Teachers and Staff
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Standard 8. Meaningful Engagement of Families and Community
Effective educational leaders engage families and the community in meaningful, reciprocal, and mutually beneficial ways to promote each student’s academic success and well-being.

Effective educational leaders manage school operations and resources to promote each student’s academic success and well-being.

Doctor of Education: Focus in Higher Education Administration

Student Learning Outcomes for Higher Education Administration
Upon completion of the Higher Education Administration program, the student will:

- Have a thorough grounding of higher education/student affairs as a field of study
- Understand organizational, management, leadership and supervision theories and issues
- Understand developmental theories as they relate to college students
- Understand professional requirements and ethics of the field
- Develop self-awareness
- Develop multicultural competencies
- Improve communication skill
- Develop skills to use technology to enhance the educational experience
• Develop the ability to analyze and interpret current research in the field
• Increase skills to apply research
• Improve ability to integrate and synthesize information

The doctoral program with a focus in Higher Education Administration is designed to prepare administrative leaders for positions in community colleges and four-year colleges and universities. The program may also be appropriate for individuals working in government agencies and business and industry. Therefore, students may come to the program from a variety of fields, backgrounds, and types of higher education institutions.

Criteria for Admission to Higher Education Focus
Admission to the Higher Education doctoral program is a separate procedure from admission to the Graduate School and is based on successful acceptance into the University of Missouri-Kansas City graduate School and the Higher Education program. This requires submission of the following:

1. Completed UMKC application.
2. Official transcripts from each college attended.
3. Graduate Record Exam: quantitative, verbal and writing portion
4. A letter of intent including a statement of the reason for pursuing a doctoral degree in Higher Education and a brief discussion about the match between the applicant's needs and the program offering.
5. A vita or resume providing a summary of leadership activities, work experiences, and scholarly activity.
6. Three letters of recommendation (on forms provided in application packet) are required. One letter may be from a personal reference; two letters must be professional references.
7. An interview will be scheduled with at least two faculty members as the final step in the admission process. Interview topics will be wide-ranging, including personal goals and objectives, current issues in education, and successful college experiences. The interview is designed to acquire information concerning the applicant's oral skills and critical thinking skills. The applicant will also have the opportunity to garner additional information about the program.

Curriculum
The program consists of 90 semester hours beyond the baccalaureate degree inclusive of the dissertation. The Ed.D. is an applied degree designed for the advanced student who wishes to achieve a superior level of competency in his/her professional field with emphasis on practice and leadership in an urban setting. The degree requires students to demonstrate proficiency in independent research in higher education and make original contributions to the body of knowledge related to higher education. The program is structured on a cohort model with admission every three years. Admitted students must agree to take courses as prescribed in order to complete all courses in a three year timeframe.
Educational Specialist: Educational Administration

Program Description

The educational specialist degree with emphasis in PK-12 school administration (accredited by the National Council for Accreditation of Teacher Education and the Missouri Department of Elementary and Secondary Education) prepares teachers for specialization in school leadership and administration. The program also provides an opportunity for practicing administrators to enhance their professional skills and to connect with other practitioners from the metropolitan area and region. To this end, the program's emphasis is the development of broad understanding and experiences across the whole professional field, the acquisition of in-depth knowledge in at least one specialized field in educational administration, and integrative experiences demonstrating the application of theory to practice.

Although not essential to completion of the educational specialist degree, the master of arts may be earned by the candidate at approximately the halfway point.

EdS Beginning Principal

The Ed.S. degree with emphasis in educational administration prepares teachers for specialization in school leadership and administration. The program also provides an opportunity for practicing administrators to enhance their professional skills and to connect with other practitioners from the metropolitan area and region. Students in the program gain a broad understanding across the professional field, the acquisition of in-depth knowledge in at least one specialized field in educational administration, and integrative experiences demonstrating the application of theory to practice.

Requirements for Admission

Candidates must:

• Provide a copy of a valid teaching certificate
• Provide a copy of a current permanent or professional school administrator/principal license/certificate to teach.
• Have at least two years of full-time certified teaching, supervisory, or administrative experience, or any combination thereof, in elementary, middle or secondary schools under a fully licensed teaching certificate (temporary or provisional certification does not meet this requirement).
• Provide a transcript demonstrating completion of a course in psychology or education of the exceptional child.
• Possess a master's degree with a GPA of at least 3.25

Student Learning Outcomes

Students graduating from this program will:

• As written below; this is just distinguishing those who hold elementary administrative certification from those seeking initial administrative certification.

Student Learning Outcomes for Ed.S. PK-12 Administration

Upon completion of the Ed.S. Educational Administration program, the student will:

• Have a thorough grounding of higher education/student affairs as a field of study
• Understand organizational, management, leadership and supervision theories and issues
• Understand developmental theories as they relate to college students
• Understand professional requirements and ethics of the field
• Develop self-awareness
• Develop multicultural competencies
• Improve communication skill
• Develop skills to use technology to enhance the educational experience
• Develop the ability to analyze and interpret current research in the field
• Increase skills to apply research
• Improve ability to integrate and synthesize information


Standard #1 Vision, Mission, and Goals
Superintendents have the knowledge and ability to ensure the success of all students by facilitating the development, articulation, implementation, and stewardship of a school or district vision of learning supported by the school community.

**Standard #2 Teaching and Learning**

Superintendents have the knowledge and ability to ensure the success of all students by promoting a positive school culture and an effective instructional program, applying best practice to student learning, and designing comprehensive professional growth plans for staff.

**Standard #3 Management of Organizational Systems**

Superintendents have the knowledge and ability to ensure the success of all students by managing the organizational structure, personnel, and resources in a way that promotes a safe, efficient, and effective learning environment.

**Standard #4 Collaboration with Families and Stakeholders**

Superintendents have the knowledge and ability to ensure the success of all students by collaborating with families and other community members, responding to diverse community interests and needs, and mobilizing community resources.

**Standard #5 Ethics and Integrity**

Superintendents have the knowledge and ability to ensure the success of all students by acting with integrity and in an ethical manner.

**Standard #6 The Education System**

Superintendents have the knowledge and ability to ensure the success of all students by understanding, responding to and influencing the larger political, social, economic, legal, and cultural context.

**Standard 7: Professional Development**

Superintendents have the knowledge and ability to ensure the success of all students by remaining current on best practices in education administration and school-related areas as evidenced in his/her annual professional development plan.

**Professional Standards for Educational Leaders**

(Formerly known as ISLLC Standards)

**Standard 1. Mission, Vision, and Core Values**

Effective educational leaders develop, advocate, and enact a shared mission, vision, and core values of high-quality education and academic success and well-being of each student.

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Effective educational leaders act ethically and according to professional norms to promote each student's academic success and well-being.

**Standard 3. Equity and Cultural Responsiveness**

Effective educational leaders strive for equity of educational opportunity and culturally responsive practices to promote each student's academic success and well-being.

**Standard 4. Curriculum, Instruction, and Assessment**

Effective educational leaders develop and support intellectually rigorous and coherent systems of curriculum, instruction, and assessment to promote each student's academic success and well-being.

**Standard 5. Community of Care and Support for Students**

Effective educational leaders cultivate an inclusive, caring, and supportive school community that promotes the academic success and well-being of each student.

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Effective educational leaders engage families and the community in meaningful, reciprocal, and mutually beneficial ways to promote each student’s academic success and well-being.


Effective educational leaders manage school operations and resources to promote each student’s academic success and well-being.

Curriculum

A minimum of 36 credit hours is required in the major area. Individual programs will be designed with the assistance of the faculty advisor to develop competencies in the theoretical, technical and functional aspects of educational administration.

The basic prerequisite course for the PK-12 program is:

- EDUC-UL 5501

Completion of one of the following is required in all programs:

- EDUC-UL 5574
- EDUC-UL 5575

Candidates are required to complete 15-18 credit hours of work in the supporting areas in education and humanistic and behavioral studies. Courses in the field of educational psychology, history of education, philosophy of education, sociology of education, curriculum, or from the behavioral sciences or humanities are considered appropriate.

Also required are 6 credit hours of research coursework to include EDUC-R&P 5508.

Note: Students should identify a faculty advisor in Educational Leadership, Policy and Foundations at the time of admission to the School of Education. Final program planning is a joint responsibility of the candidate and, the faculty advisor.

Requirements for Graduation

In addition to the general School of Education graduate degree requirements, the Ed.S. degree in educational administration also requires:

1. EDUC-UL 5574
   -or-
   EDUC-UL 5575
2. A planned field experience
3. An action research project
4. The educational specialist degrees designed to meet state certification requirements for school superintendency and have specific course requirements in addition to the above.
Master of Arts: Educational Administration

Student Learning Outcomes

Upon completion of the MA in Educational Administration program, the student will:

- have a thorough grounding of higher education/student affairs as a field of study
- understand organizational, management, leadership and supervision theories and issues
- understand developmental theories as they relate to college students
- understand professional requirements and ethics of the field
- develop self-awareness
- develop multicultural competencies
- improve communication skill
- develop skills to use technology to enhance the educational experience
- develop the ability to analyze and interpret current research in the field
- increase skills to apply research
- improve ability to integrate and synthesize information

Missouri Leader Standards (http://catalog.umkc.edu/colleges-schools/education/master-of-arts-educational-administration/LeaderStandardsContinuum.pdf)

Standard #1 Vision, Mission, and Goals

Education leaders have the knowledge and ability to ensure the success of all students by facilitating the development, articulation, implementation, and stewardship of a school or district vision of learning supported by the school community.

Standard #2 Teaching and Learning

Education leaders have the knowledge and ability to ensure the success of all students by promoting a positive school culture, providing an effective instructional program, applying best practice to student learning, and designing comprehensive professional growth plans for staff.

Standard #3 Management of Organizational Systems

Education leaders have the knowledge and ability to ensure the success of all students by managing the organizational structure, personnel, and resources in a way that promotes a safe, efficient, and effective learning environment.

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Standard 6: Professional Development

Education leaders have the knowledge and ability to ensure the success of all students by remaining current on best practices in education administration and school-related areas as evidenced in his/her annual professional development plan.


(formerly known as ISLLC Standards)

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Effective educational leaders manage school operations and resources to promote each student’s academic success and well-being.

General Nature of the Program

The master of arts degree in educational administration, accredited by the National Council for Certification of Teacher Education and the Missouri Department of Elementary and Secondary Education, is designed to provide entry-level preparation for students planning careers in school administration.

The course of study includes a sequence of basic and advanced studies and other applied learning experiences. Students have the opportunity to develop understanding and skills through seminar courses, individual study, and the practice of inquiry in addition to study in required courses. The program is designed to support a focus on professional effectiveness and to foster research, evaluation and assessment activities for students. Instruction and mentored practical experiences will make frequent use of and reference to evaluation and assessment of student performance.
Emphasis Area: Higher Education

Master of Arts in Educational Administration: Higher Education Emphasis

Admissions

The Higher Education faculty review all admissions applications and make admission decisions. Admission for the M.A. in educational administration, with an emphasis in Higher Education, requires that the following steps be successfully completed:

Admission Requirements

1. **Full admission** to the Higher Education Program requires:
   - Completion of the UMKC graduate admission application.
   - An undergraduate 3.0 GPA or higher.
   - Cover sheet.
   - Two letters of reference with recommendation form.
   - A written statement of purpose (500 words maximum) that outlines the student’s rationale for application to the program and learning goals.

2. Students who do not meet the undergraduate grade-point average can receive conditional admission to the program. Students must complete a minimum of six hours of core requirements with a grade of “B” or better within the first two semesters of enrollment.

3. Priority application deadlines are as follows:
   - April 1 for summer term
   - July 1 for fall term
   - November 1 for spring term

Student Learning Outcomes

Students graduating from this program will:

- Grounding in the Field. Students will demonstrate increased knowledge of the historical development of the higher education system and leadership in the profession.
- Communication. Students will demonstrate improved ability to communicate in multiple forms (e.g., orally, written, presentation).
- Ethics. Students will be able to identify and appropriately address ethical issues that occur at the post-secondary level and understand how ethical statements from professional organizations guide behavior.
- Diversity. Students will understand the multiple forms of diversity found on university campuses. Students will reflect on their own experience and its’ influences behavior.

Student Learning Outcomes

Program Requirements

The graduate program in Educational Administration with an emphasis in Higher Education prepares administrators and educators for the demands of leadership in colleges or universities and other institutional settings. Through a comprehensive master’s program for individuals wanting a graduate degree or through coursework taken for professional development, the program supports administrative leaders and educators who seek to enhance their professional competencies and effectiveness in today’s increasingly diverse workplace.

Student programs of study at the master’s level are developed to reflect required core courses that provide all master’s level students with fundamental understandings of higher education, student development, organizational leadership and diversity. In addition, the program offers a range of cognate courses that are tailored to meet specific student interests or learning goals in administrative leadership or student affairs administration. Advising materials and meetings with faculty enable students to create academic programs that meet their unique learning needs. Unless indicated, all courses are available to non-degree seeking students for professional development.

All master’s level students will design a full-term internship in collaboration with an on-site supervisor and the instructor of the fieldwork course. The purpose of the internship is to provide students with guided opportunities to enhance skills, expand their professional experience base, and apply course learning in new settings.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC-UL 5526</td>
<td>Philosophical Foundations Of Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-UL 5550</td>
<td>Organization And Administration Of Higher Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-UL 5556</td>
<td>The College Student</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-UL 5560</td>
<td>Leadership In Higher Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-UL 5564</td>
<td>History Of Higher Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-UL 5566</td>
<td>Racial And Ethnic Diversity, And Cultural Understanding</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
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<tr>
<td>EDUC-UL 5567</td>
<td>Higher Education Capstone</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-UL 5571</td>
<td>Internship In Higher Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-R&amp;P 5508</td>
<td>Principles And Methods Of Research</td>
<td>3</td>
</tr>
</tbody>
</table>

**Research and Statistics**

- EDUC-R&P 5508  
  Principles And Methods Of Research  
  3

**Focus Area**

Select one of the following areas:

**Focus Area: Student Affairs Administration**

- EDUC-UL 5551  
  Student Affairs Administration In Higher Education  
  EDUC-UL 5558  
  Advanced Student Development Theory  
  EDUC-UL 5559  
  Current Issues In Community Colleges

**Focus Area: Foundations of Education**

- EDUC-UL 5524  
  Philosophical Inquiry And Education  
  EDUC-UL 5525  
  Cultural Foundations Of Education  
  EDUC-UL 5527  
  Historical Foundations Of Education  
  EDUC-UL 5528  
  Sociological Foundations Of Education

**Focus Area: Sports Administration & Exercise Science**

- PHYS-ED 5561  
  Social-Cultural Aspects of Sport and Physical Activity  
  PHYS-ED 5570  
  Sport Psychology  
  PHYS-ED 5530  
  Organization And Administration Of Athletics

Students with no focus area must select three of the following electives:

- EDUC-UL 5525  
  Cultural Foundations Of Education  
- EDUC-UL 5526  
  Philosophical Foundations Of Education  
- EDUC-UL 5528  
  Sociological Foundations Of Education  
- EDUC-UL 5551  
  Student Affairs Administration In Higher Education  
- EDUC-UL 5557  
  Legal Aspects Of Higher Education  
- EDUC-UL 5637  
  Community College  
- EDUC-UL 5652  
  Financial Aspects Of Higher Education  
- EDUC-UL 5558  
  Advanced Student Development Theory  
- CPCE 5505  
  Career Development I  
- EDUC-R&P 5505  
  Statistical Methods I  
- PHYS-ED 5561  
  Social-Cultural Aspects of Sport and Physical Activity  
- PHYS-ED 5570  
  Sport Psychology  
- PHYS-ED 5530  
  Organization And Administration Of Athletics

**Total Credits**  
36

**Note:** The student may select courses from other disciplines to meet elective hours. All coursework must be approved by the advisor.
Emphasis Area: School (Grades K-12) Administration

Coordinator:
Uzziel Pecina, (816) 235-2716, pecinau@umkc.edu (friendj@umkc.edu)

Admissions
Admission and retention for the M.A. in educational administration, with an emphasis in school (PK-12) administration, requires that the following steps be successfully completed:

Admission into Program
- Completion of a course in education of the exceptional child.
- Attain an undergraduate GPA of at least 2.75.
- Provide copy of a current permanent or professional teaching license/certificate.
- Provide resume showing at least one year of certified teaching experience in elementary, middle or secondary schools under a fully licensed teaching certificate (temporary or provisional certification does not meet this requirement).
- Essay statement regarding past, present and future career goals (500 words or less).
- A minimum of three letters of reference on official letterhead from a direct supervisor of professional teaching experience.

Students who do not meet all of the above admission requirements may receive conditional admission to the program. Full admission is contingent upon completion of a minimum of six hours of core requirements during the first semester of enrollment with a grade of ‘B’ or better.

Acceptance into Practicum
- Successful completion of all coursework (1) with a B grade or better.

Program Completion and Recommendation for Administrative Certificate
- Successful completion of the practicum.
- Recommendation of the faculty based on coursework completion, development of an administrative platform, and action research presentation.
- Completion of the student exit survey.

Post-Program Completion
- Student completion of ELPF graduate survey relative to preparation program and ELCC standards.
- Employer survey completion (supervisor).

1. No more than 6 post-undergraduate/graduate credit hours may transfer into the M.A. program.
2. Students must file a Program Plan of Study while enrolled in the course EDUC-UL 5501.
3. EDUC-UL 5501 is the prerequisite to EDUC-UL 5502; and EDUC-UL 5502 is the prerequisite to EDUC-UL 5503. These courses are mandatory and cannot be waived. Students must enroll in these courses in sequence.

Master of Arts in Educational Administration: Elementary School Emphasis

Student Learning Outcomes
The master’s program with emphasis in school administration is designed to prepare leaders for 21st century schools. These leaders must begin now to envision the nature of a global technical-information-based society and the schooling such a society will require. Assumptions based on available knowledge concerning these schools will be made in designing the M.A. program for students. Students will be expected to develop "Learning Organizational Culture" schools and demonstrate competency to develop:

1. Into a facilitator of relationships and outcomes that enhance the effective operation of the school.
2. Collaborative and participative planning and decision-making structures (teams).
3. Support networks from the community and in the school.
4. School organizations as cultures of renewal, risk, problem-solving, trust and caring.
5. School culture of reflective and critical thought concerning learning theory and practice.

On completion of the program, students will be equipped to envision and embrace an information-based, developmental society. Students begin their program of study with a cohort group of other potential school leaders and will take a series of 3-credit-hour block courses. Each cohort will work collaboratively throughout its studies and be led by University faculty.

Students will complete both individual and group projects, over the course of their degree program, and participate in field experiences each semester. While the three-block sequence is intended for school leaders at every level, it is expected that students will tailor their elective coursework and their culminating experience (practicum or internship) to the building level at which they hold their teaching credentials.
Students who complete the master of arts in educational administration may be recommended for initial certification as a building administrator (Kansas) or principal (Missouri). Students must complete the Educational Specialist to earn advanced principal certification in Missouri. Advanced certification is required to be a principal in an AAA-rated school district. Administrative assessment (the School Leaders Licensure Assessment) is required in Missouri and Kansas.

### Degree Requirements

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</thead>
<tbody>
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<td>Foundations Of School Leadership &amp; Organization (Block I)</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-UL 5502</td>
<td>Building Administration And Management (Block II)</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-UL 5503</td>
<td>Student, Staff And Organization Development (Block III)</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-UL 5507</td>
<td>Instructional Supervision</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-UL 5515</td>
<td>Governmental And Legal Aspects Of Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-UL 5518</td>
<td>Leadership for School Improvement</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-UL 5520</td>
<td>Data Driven Leadership for Reculturing Schools</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-UL 5574</td>
<td>Administrative Practicum</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Theoretical and Functional Aspects of Educational Administration

- Required core for all level principals.
- EDUC-UL 5501, EDUC-UL 5502 and EDUC-UL 5503 must be taken sequentially. EDUC-UL 5501 is offered in the fall and spring semesters only.

#### Related and Supporting Areas

- **Curriculum** - Select one of the following:
  - EDUC-C&I 5505: Introduction To Curriculum Theory
  - EDUC-C&I 5506: Curriculum Design
  - EDUC-C&I 5591: Curriculum & Instruction For The 21St Century

- **Humanistic** - Select one of the following:
  - EDUC-UL 5524: Philosophical Inquiry And Education
  - EDUC-UL 5526: Philosophical Foundations Of Education
  - EDUC-UL 5527: Historical Foundations Of Education

- **Behavioral** - Select one of the following:
  - EDUC-R&P 5502: Advanced Educational Psychology
  - EDUC-R&P 5510: Child Behavior And Development
  - EDUC-UL 5525: Cultural Foundations Of Education
  - EDUC-UL 5528: Sociological Foundations Of Education
  - EDUC-R&P 5512: Adolescent Development And The School (Meets Middle School cert. requirements)

- **Research** - Select one of the following:
  - EDUC-R&P 5508: Principles And Methods Of Research
  - EDUC-R&P 5522: Principles Of Testing

**Total Credits**: 36

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### Master of Arts in Educational Administration: Secondary School Emphasis

#### Student Learning Outcomes

The master’s program with emphasis in school administration is designed to prepare leaders for 21st century schools. These leaders must begin now to envision the nature of a global technical-information-based society and the schooling such a society will require. Assumptions based on available knowledge concerning these schools will be made in designing the M.A. program for students. Students will be expected to develop "Learning Organizational Culture" schools and demonstrate competency to develop:

1. Into a facilitator of relationships and outcomes that enhance the effective operation of the school.
2. Collaborative and participative planning and decision-making structures (teams).
3. Support networks from the community and in the school.
4. School organizations as cultures of renewal, risk, problem-solving, trust and caring.
5. School culture of reflective and critical thought concerning learning theory and practice.
On completion of the program, students will be equipped to envision and embrace an information-based, developmental society. Students begin their program of study with a cohort group of other potential school leaders and will take a series of 3-credit-hour block courses. Each cohort will work collaboratively throughout its studies and be led by University faculty.

Students will complete both individual and group projects, over the course of their degree program, and participate in field experiences each semester. While the three-block sequence is intended for school leaders at every level, it is expected that students will tailor their elective coursework and their culminating experience (practicum or internship) to the building level at which they hold their teaching credentials.

Students who complete the master of arts in educational administration may be recommended for initial certification as a building administrator (Kansas) or principal (Missouri). Students must complete the Educational Specialist to earn advanced principal certification in Missouri. Advanced certification is required to be a principal in an AAA-rated school district. Administrative assessment (the School Leaders Licensure Assessment) is required in Missouri and Kansas.

### Degree Requirements

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<td>Foundations Of School Leadership &amp; Organization (Block I) ²</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-UL 5502</td>
<td>Building Administration And Management (Block II) ²</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-UL 5503</td>
<td>Student, Staff And Organization Development (Block III) ²</td>
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<td>Instructional Supervision</td>
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</tr>
<tr>
<td>EDUC-UL 5574</td>
<td>Administrative Practicum</td>
<td>3</td>
</tr>
</tbody>
</table>

### Related and Supporting Areas

**Curriculum - Select one of the following:**
- EDUC-C&I 5505 Introduction To Curriculum Theory
- EDUC-C&I 5506 Curriculum Design
- EDUC-C&I 5591 Curriculum & Instruction For The 21St Century

**Humanistic - Select one of the following:**
- EDUC-UL 5526 Philosophical Foundations Of Education
- EDUC-UL 5527 Historical Foundations Of Education

**Behavioral - Select one of the following:**
- EDUC-R&P 5502 Advanced Educational Psychology
- EDUC-R&P 5510 Child Behavior And Development
- EDUC-UL 5525 Cultural Foundations Of Education
- EDUC-UL 5528 Sociological Foundations Of Education
- EDUC-R&P 5512 Adolescent Development and the School (meets Middle School cert. requirements)

**Research - Select one of the following:**
- EDUC-R&P 5508 Principles And Methods Of Research (required for Kansas Certification)
- EDUC-R&P 5522 Principles Of Testing

**Total Credits** 36

1. Required core for all level principals.
2. EDUC-UL 5501, EDUC-UL 5502 and EDUC-UL 5503 must be taken sequentially. EDUC-UL 5501 is offered in the fall and spring semesters only.

### Principal Certification

Students seeking administrative certification must first offer proof of holding valid teaching certification at the same level (i.e., elementary or secondary), and have a minimum of two years teaching experience. The M.A. is offered with certification concentrations in elementary school administration or secondary school administration. Additional coursework is required for certification as a middle school administrator.

Those who complete the master of arts in educational administration may be recommended for initial certification as a building administrator (Kansas) or principal (Missouri). Students are encouraged to complete the educational specialist degree to further their careers. In addition to completion of the academic program, Missouri and Kansas require all prospective administrators to successfully complete the School Leaders Licensure Assessment.
Special Programs and Centers

Berkley Child and Family Development Center
The Berkley Child and Family Development Center provides quality care and education for young children and serves as a research training site for UMKC students. The center is administered through the School of Education and is part of the academic unit. It is accredited through the National Association for the Education of Young Children and licensed by the state of Missouri. Enrollment is open to the University population and the community for children ages 3 months to 6 years old. The center is accessible to children with special needs. To inquire about enrollment or a tour of the facility call (816) 235-2600.

Charter School Center
As part of UMKC’s vision of active engagement with its city and its mission to collaborate on urban issues and education, the UMKC Charter School Center was created to:

- Establish and assist in the development of high quality urban schools that will retain and attract families with school-age children within the Kansas City, Missouri School District.
- Sponsor charter schools which address safe and orderly climates, high attendance, increased parent involvement, high academic achievement, and effective governance practices to ensure this is the norm for all students regardless of economic standing, race, culture, or gender.
- In exchange for greater autonomy, the charter schools sponsored by UMKC are accountable for student achievement, fiscal responsibility, and legal compliance.
- Provide schools of choice for parents and students which could encourage more effective practices and collaboration throughout the Kansas City Missouri School District.

Kansas City Regional Professional Development Center (KCRPDC)
The Kansas City Regional Professional Development Center (KCPDC) is one of nine regional professional development centers in Missouri, partially funded by the Department of Elementary and Secondary Education and serving schools, districts and educators in the Kansas City region. The mission of the KCPDC is to build the capacity of educators to maximize student performance through high quality professional development.

Migrant Education and English Language Learning (MELL)
The Missouri Migrant Education and English Language Learning program (MELL) is designed to use existing resources to better serve all English Language Learning (ELL) and migrant students in the state of Missouri. The MELL program works to prevent duplicate services and allows most funds to swiftly reach any and all Missouri school districts with children of need.

Missouri School-Wide Positive Behavior Support
Missouri School-wide Positive Behavior Support is a partnership among the Missouri Department of Elementary and Secondary Education (DESE), The University of Missouri-Columbia (MU) Center for School-wide Positive Behavior Support and the Office of Special Education Programs (OSEP) Center on Positive Behavioral Interventions and Supports, University of Oregon and Connecticut. The program facilitates teachers and administrators in implementing a behavior culture and climate to increase learning.

Special Education Consultants
The KCPDC provides technical assistance and instructional support to special education teachers and administrators. Services include supporting effective practices, compliance, post-secondary transition planning, and MAP-A.

Professional Learning Communities
This Missouri Professional Learning Communities Project (PLC) evolved from the Missouri Accelerated Schools Project which had served as a school reform initiative for many years. PLC consultants work with building leadership teams during a multi-year process to implement school-wide reform.

Curriculum, Instructional and Assessment Support
Consultants at the KCPDC are available to assist teachers and administrators in reviewing, designing and implementing effective curriculum, instructional strategies and assessments.
Division of Continuing and Professional Education

Through the Division of Continuing and Professional Education (CPE), hundreds of courses are offered to pre-K educators and administrators; mental health providers and other community members throughout the Greater Kansas City Metropolitan area and beyond. Credit and non-credit courses are offered throughout the year at various locations and at various times. Continuing and Professional Education also has numerous online offerings to fit any schedule. For course topics and additional information, visit our Web site at umkc.edu/education/ce (https://education.umkc.edu/community-centers-and-programs/continuing-education) or call (816) 235-1188.
School of Graduate Studies

Administrative Center (http://www.umkc.edu/virtualtour/administrative-center.asp), Room 300F
5115 Oak Street
(816) 235-1301
u (graduate@umkc.edu) mkcsgs@umkc.edu
http://sgs.umkc.edu

Mailing Address
University of Missouri-Kansas City
School of Graduate Studies
AC 300F
5115 Oak Street
Kansas City, MO 64112

Interim Dean:
Dr. Peggy Ward-Smith

General Information

The School of Graduate Studies is responsible for monitoring compliance to the campuswide minimum graduate academic regulations, which are explained in detail in the General Graduate Academic Regulations and Information section of this catalog. Working with and through the Graduate Council and Graduate Officers Committee, the School also provides leadership and coordination of all graduate programs, offers programs to prepare graduate students for faculty positions in a variety of educational settings, and administers a number of competitive graduate fellowships.

The School also serves as the academic and administrative home for students admitted to the Interdisciplinary Ph.D. program. All other graduate students are admitted to the school or college in which their degree programs are housed.

- Mission and Administrative Organization of Graduate Education
- Institute for Human Development
  - Interdisciplinary Leadership Certificate in Disability Studies
- Graduate Certificate in College Teaching and Career Preparation
- Interdisciplinary Ph.D. Program
  - Program Administration
  - Program Description
  - Doctoral Faculty Participation in the Interdisciplinary Ph.D. Program
  - Application Procedure and Minimum Criteria for Admission
  - Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements
    - Change of Disciplines by Admitted Students
    - Interim Advisor
    - Qualifying Requirements for Full Admission
    - Research Advisor and Supervisory Committee
    - Interdisciplinary Ph.D. Plan of Study
    - Interdisciplinary Ph.D. Residency Requirement
    - Transfer Credit
    - Comprehensive Examination
    - Program Time Constraints
    - Dissertation Research Proposal Development and Approval
    - Dissertation and Completion of Degree
    - Interdisciplinary Ph.D. Student Appeal Process
- Student Learning Outcomes
- Interdisciplinary Ph.D. Discipline-Specific Requirements
  - Art History
  - Biomedical and Health Informatics
  - Cell Biology and Biophysics
  - Chemistry
  - Computer Science
  - Curriculum and Instruction
School of Graduate Studies

- Economics
- Educational Leadership, Policy and Foundations
- Electrical and Computer Engineering
- Engineering
- English
- Entrepreneurship
- Geosciences
- History
- Humanities Consortium
- Mathematics
- Molecular Biology and Biochemistry
- Music Education
- Oral and Craniofacial Sciences
- Pharmaceutical Sciences
- Pharmacology
- Physics
- Political Science
- Public Affairs and Administration
- Social Science Consortium: Economics, Political Science and Sociology
- Telecommunication and Computer Networking

Courses

SGS 5501 Disability and Community Support Credits: 3
This is an academic service-learning course that will integrate 15 classroom contact hours with 60 service hours within a framework of Disability Studies.

**Prerequisites:** LAW 8815S.

SGS 5651A Preparing Future Faculty I Credit: 1
Course is the first in a 6-course series focusing on teaching at a college or university and exploring the opportunities at, and differences among, various types of institutions of higher education. Course development and exploring the various roles and responsibilities of university faculty members are the emphases of the first two courses.

**Prerequisites:** Year I Preparing Future Faculty Fellow or doctoral student recommended by two faculty members in student’s doctoral program.

SGS 5651B Preparing Future Faculty II Credit: 1
Course is the second in a 6-course series focusing on teaching at a college or university and exploring the opportunities at, and differences among, various types of institutions of higher education. Course development and exploring the various roles and responsibilities of university faculty members are the emphases of the first two courses.

**Prerequisites:** SGS 5651A.

SGS 5652A Preparing Future Faculty III Credit: 1
Course is the third in a 6-course series focusing on teaching at a college or university and exploring the opportunities at, and differences among, various types of institutions of higher education. The emphasis in SGS 5652A and SGS 5652B is on the teaching/classroom experience including using technology effectively. Students may enroll simultaneously in SGS 5651A and SGS 5652A.

**Prerequisites:** Year 2 Preparing Future Faculty Fellow, or recommendation by two faculty members in student’s doctoral program.

SGS 5652B Preparing Future Faculty IV Credit: 1
Course is the fourth in a 6-course series focusing on teaching at a college or university and exploring the opportunities at, and differences among, various types of institutions of higher education. The emphasis in SGS 5652A and SGS 5652B is on the teaching/classroom experience with a focus on using technology effectively. Students who have completed SGS 5651A and SGS 5652A may enroll simultaneously in SGS 5651B and SGS 5652B.

**Prerequisites:** SGS 5652A.

SGS 5653A Preparing Future Faculty V Credit: 1
Course is the fifth in a 6-course series focusing on teaching at a college or university and exploring the opportunities at, and differences among, various types of institutions of higher education. The emphasis in SGS 5653A and SGS 5653B is on academic collaboration and preparing for the academic job market. Students may enroll simultaneously in SGS 5652A and SGS 5653A.

**Prerequisites:** EDUC-R&P 5639 (or equivalent) and either Preparing Future Faculty Fellow or recommendation by two faculty members in student’s doctoral program.
SGS 5653B Preparing Future Faculty VI Credit: 1
Course is the last in a 6-course series focusing on teaching at a college or university and exploring the opportunities at, and differences among, various types of institutions of higher education. The emphasis in SGS 5653A and SGS 5653B is on academic collaboration and preparing for the academic job market. Students who have completed SGS 5652A and SGS 5653A may enroll simultaneously in SGS 5652B and SGS 5653B.

Prerequisites: SGS 5653A.
Mission and Administrative Organization of Graduate Education

UMKC currently offers more than 50 graduate degrees at the master’s, educational specialist and doctoral levels, plus a number of graduate certificates. Graduate students represent about 35 percent of the total campus enrollment. The graduate student population is diverse in ethnicity, gender and racial background. As an urban university, our programs strive to accommodate adult working students. Nearly two-thirds of all graduate students are enrolled part time and the average age is 35.

The Graduate Council, representing a cross section of campus graduate faculty, sets policy, establishes minimum graduate education standards and monitors the quality of graduate education at UMKC. The graduate faculty in the various graduate degree programs may set standards more stringent than the minimums outlined in this catalog section, and in such cases, the program standards take precedence over the campuswide minimum regulations. The School of Graduate Studies is responsible for monitoring compliance to the campuswide minimum graduate academic regulations; providing leadership and coordination of all graduate programs; and serves as the academic home for students admitted to the Interdisciplinary Ph.D. program. Information on the Interdisciplinary Ph.D. program (p. 1185) may be found in the School of Graduate Studies section of this catalog.
GRADUATE ACADEMIC REGULATIONS AND INFORMATION

School of Graduate Studies
300F Administrative Center
5115 Oak Street
(816) 235-1301
Fax: (816) 235-1310
u (graduate@umkc.edu) mkmcs@umkc.edu (umkcs@umkc.edu)
http://sgs.umkc.edu/

Mailing Address
University of Missouri-Kansas City
School of Graduate Studies
5115 Oak Street, 300F
Kansas City, MO 64112-2499

Interim Dean:
Peggy Ward-Smith

• Mission and Administrative Organization of Graduate Education
• Admission Policies and Procedures
• Graduate Academic Regulations
  • Academic Loads
  • Enrollment
    • Changes in Enrollment
    • Enrollment/Readmission Policy
    • Continuous Graduate Enrollment Requirement
    • Enrollment Classifications
• Exceptions to Academic Regulations
• Foreign Language Proficiency
• Graduate Courses and Grading Policies
• Requirements for Retention
• Retroactive Withdrawals
• Requirements for Graduation
• Master’s Degrees Academic Regulations (p. 1204)
  • Advisor/Supervisory Committee
  • Qualifying Examination
  • Master’s Degree Program of Study
  • Dual Degree Programs at the Master’s Level
  • Transfer Credit Policy for Master’s Degrees
  • Final Master’s Competency Examination
  • Thesis Definition
  • Thesis Preparation and Approval
  • Final Thesis Examination and Supervisory Committee Approval
  • Deposit of Approved Thesis with Libraries
• Doctoral Degree Programs (Ed.D., Ph.D., D.M.A.) (p. 1206)
  • Supervisory Committee
  • Qualifying Examination
  • Doctoral Programs of Study
  • Transfer Credit
  • Residency Requirements
  • Comprehensive Examination
  • Program Time Constraints
  • Required Enrollment
  • Dissertation and Completion of Degree
• International Graduate Applicant and Student Information
  • General Graduate Admission Policies for International Applicants
    • Deadline for Application for Admission
    • International Applicant and Student Financial Statement
    • Additional Information and Forms

• Special Institutional Regulations for International Graduate Students
• Intercampus Graduate Study Opportunities
  • UM Traveling Scholar Program
  • Cooperative Doctoral Degrees
• Potential Sources of Financial Support for Graduate Study
  • Graduate Teaching and Research Assistantships
  • Federally Supported Sources of Financial Aid
  • Institutionally Supported Fellowship and Award Competitions
Mission and Administrative Organization of Graduate Education

UMKC currently offers more than 50 graduate degrees at the master’s, educational specialist and doctoral levels, in addition to more than 20 graduate certificate programs. Graduate students represent about 33 percent of the total campus enrollment. The graduate student population is diverse in ethnicity, gender and racial background. As an urban university, our programs strive to accommodate adult working students. Nearly two-thirds of all graduate students are enrolled part time and the average age is 35.

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Graduate Admission Policies and Procedures

Graduate admission committees in each academic unit review applications and make recommendations for admission. Applicants must satisfy both the general campus requirements and the program-specific admission criteria for graduate study. The minimum general requirements follow.

Graduate Admission Requirements

The following are minimum requirements for admission to graduate study in all UMKC graduate programs:

1. A bachelor's or first-level professional degree from a regionally accredited institution.
2. A satisfactory academic record.

For program-specific requirements, applicants should consult the pertinent degree program listing in this catalog.

Many UMKC graduate degree programs require satisfactory scores from either the Graduate Record Examination (general and/or subject tests), the Miller Analogies Test or the Graduate Management Admissions Test. Other academic units may require other national examinations. Test applications and information can be obtained from the UMKC Counseling, Health and Testing Center, (816) 235-1635, or by contacting the Educational Testing Service http://www.ets.org.

Graduate Study Application Procedure

In general, applications for admission to graduate study should be obtained from and returned to the admissions office. Complete contact information for admissions can be found in the Application Forms (p. 2327) section of undergraduate admissions in the undergraduate catalog or from the UMKC Web site home page.

Because some academic units have special application packets, applicants requesting application materials should be sure to specify the program to which they plan to apply. Admission to a degree program is subject to the recommendations of the graduate faculty in the degree program area and the dean of the academic unit in which the program is offered. Graduate admission decisions by the academic dean or designated representative are final.

Applicants must submit an official transcript from the school where their bachelor's degrees were obtained. Unless the transcript of the degree-granting institution includes the complete record of undergraduate work taken at all other schools, an official transcript from each of the other institutions also must be supplied. In addition, applicants must submit an official transcript from each school where other coursework has been taken or degrees have been obtained after the bachelor's degree. All credentials submitted in support of the application for admission become UMKC property and will not be returned to students, nor will UMKC release copies of such credentials to a third party.

The graduate degree programs at UMKC have varying schedules for receiving, reviewing and acting on applications for admission. Before applying, applicants should contact the principal graduate advisor or graduate officer for the chosen degree to determine program-specific deadlines. Lists of the names of the current graduate officers and principal graduate advisors are available, on request, from the School of Graduate Studies.

International graduate applicants should refer to International Graduate Student Applicant and Student Information (p. 1212) later in this section (p. 1189).
General Graduate Academic Regulations

The minimum academic regulations and degree requirements for graduate study at UMKC, as outlined in the subsections that follow, have been determined by the UMKC graduate faculty through representation on the Graduate Council and the Committee of Graduate Officers, and apply to all graduate programs. Individual schools and departments may adopt additional and more stringent requirements for admission, retention and degrees that take priority over these minimum regulations. These additional requirements are detailed under the various fields of study in this catalog.

Academic Loads

Full-Time Academic Load Definition for Graduate Students

Graduate students enrolled in nine or more credits during a regular semester or five credits during a summer session are considered full-time students. All students registered for fewer than those specified totals are classified as part-time students, unless they hold a teaching or research appointment at UMKC.

Full-time enrollment for students holding graduate teaching assistant or graduate research assistant appointments (GTA/GRAs) is six hours in a regular semester or three hours in a summer session. GTAs/GRAs are expected to make normal progress toward their degrees and should enroll in a minimum of six hours per semester (three credits in the summer session). However, GTA/GRA appointees who have completed all required coursework for the degree and who are working full time on research need only enroll for the minimum of three credits.

These designations of full time are for academic purposes only and do not apply to assessment of fees or degree program residency requirements. Note that this policy in no way alters the residency requirements and criteria for doctoral degrees. Further, international students holding GTA/GRA appointments also must abide by requirements of the U.S. Immigration Service and should consult the international student advisor before reducing their course loads.

Special Cases: Requests for GTA/GRA Appointments Greater than Half Time and Requests for Exemption from Social Security Withholding for GTAs/GRAs

GTA/GRA appointments are normally restricted to no more than 20 hours per week (.5 full-time employee). Requests for GTA/GRA appointments greater than .5 FTE must be submitted to the School of Graduate Studies prior to the beginning of the appointment and must be accompanied by a statement from the student’s major advisor that the additional work load will neither place the student at risk academically nor impede the student’s academic progress.

Graduate students holding GTA/GRA appointments are automatically exempt from Social Security withholding tax as long as they are enrolled in at least six credit hours. If the student’s enrollment falls below six credit hours, the student’s academic unit may certify his or her eligibility for continued exemption for one of the following two reasons:

• The GRA is a doctoral student working in a research laboratory as a component of the educational requirement and is enrolled in the minimum number of research hours required for doctoral students who have passed comprehensive examinations.
• The GTA or GRA is a graduate student enrolled in fewer than six credit hours because it is the student’s exit semester.

Certification forms are available in the School of Graduate Studies office. The form requires signatures from the student’s major advisor and the principal graduate advisor of the student’s academic unit. After these individuals have signed the form, it must be sent to the School of Graduate Studies for recommendation. The School of Graduate Studies forwards the completed request to the Payroll Office for final action on the request.

Restricted Academic Loads

Limitation on the size of the academic load for which graduate students can register might be imposed by the dean or faculty advisor. Generally, students on probation are required to restrict the academic program to a minimum full-time load until they have returned to good standing.

Interpretation of Full-Time and Half-Time Status of Graduate Students for Purposes of Certification to Lending/Funding Agencies

To be eligible for certification of full-time status as a graduate student, a student must meet at least one of the following conditions:

• Enrollment in nine credit hours.
• Ph.D., D.M.A., D.N.P. and Ed.D. candidates who have passed their doctoral comprehensive examinations and are enrolled in at least one credit hour (not to exceed 10 semesters of certification under this category).

To be eligible for certification of half-time status as a graduate student, a student must be enrolled in at least five credit hours.

Special Cases and Limitations on Registrar’s Certification to Lending/Funding Agencies:

• Ph.D. D.M.A., D.N.P or Ed.D. students who have not taken and passed their doctoral comprehensive examinations and who do not meet one of the other enrollment qualifications for certification and Master’s/Educational-Specialist, and Graduate Certificate students not qualifying for certification under one of the categories listed above may petition the principal graduate advisor in their academic unit for special consideration.
If, based on a review of the student's petition, the principal graduate advisor believes the student for full-time or half-time status, the principal graduate advisor may submit a request to the Registrar's Office.

- Work to satisfy an incomplete grade or grades from a previous term or terms does not count toward certification. Therefore, a class may be used only in status calculation for one term. Since the hours are used in status calculation during the original term of enrollment, that is the only term that the hours may be counted.
- Status may not be calculated nor certified for future terms.

**Enrollment**

Information given in this section reflects minimum campus standards for graduate students' changes of enrollment. Because each academic unit has the prerogative to set more stringent rules, students should consult the principal graduate advisor or graduate officer in their major area of study for unit or discipline-specific rules. All changes in enrollment by graduate students must be initiated in the office of the principal graduate advisor (Arts and Sciences) or graduate officer of the respective unit and completed in the Registration Office.

**Additions**

Students who want to enroll in an additional course may do so during the first week of the term provided they have the approval of the faculty advisor. Course additions or late enrollments after the first week of the term generally are not allowed.

**Withdrawals**

Graduate students may withdraw from a course at any time prior to the first day of the final examination period, provided the permission of the faculty advisor has been obtained and notification to the instructor has been made. However, after the mid-term, students will be academically assessed. If failing at the time of withdrawal, students will be graded "WF" (withdrawn failing). [Note: Individual academic units may have earlier deadlines for withdrawal.]

**Audit Policy for Graduate Courses**

A student must be admitted to the university and obtain the consent of the instructor in order to audit a graduate course. Courses that ordinarily may not be audited are studio courses, performance courses, continuing education courses, laboratory courses in the sciences, internships, and practicums. Students do not receive credit when auditing a course, and audited courses do not count toward enrollment status requirements (full-time, half-time).

A student registered in a course for audit is expected to attend class and to pay full tuition and fees. Providing feedback to the auditor is at the discretion of the instructor. An auditor may be administratively withdrawn from a course at any time during the semester when, in the judgement of the instructor and upon approval by the dean, the attendance or participation record justifies such action.

**Change from Audit to Credit**

Graduate students may change status in a course from audit to credit during the first week of the term, provided they have the approval of the faculty advisor and have notified the course instructor.

**Change from Credit to Audit**

Graduate students may change status in a course from credit to audit any time prior to the final examination period, provided they have the consent of the course instructor and the approval of the faculty advisor. [Note: Individual academic units may have earlier deadlines and may have program-specific restrictions on retaking audited courses for credit.]

**Withdrawal for Financial Delinquency**

If students fail to fulfill financial obligations with the University after adequate notice, withdrawal from all courses during that term will result.

**Continuous Graduate Enrollment Requirement**

After completing all courses included in the planned programs or plans of study for degrees, all degree-seeking graduate students must remain continuously enrolled in each regular semester up to and including the semester in which their degrees are awarded. This requirement applies also to the summer term for students whose degrees are being awarded at the end of a summer term. This continuous enrollment must be for a minimum of one-hour credit in research and thesis, research and dissertation, or other work designated by the department or school. When no suitable credit registration is available, or when students have previously enrolled in at least the minimum number of 5599 (thesis) or 5699 (dissertation) or equivalent credits required on their programs or plans of study, students may fulfill the continuous enrollment requirement by registration in continuous graduate enrollment (5899) for no academic credit. Interruption of continuous registration due to failure to comply with this requirement will result in the need for readmission under requirements then in effect. Academic units may require retroactive enrollment as a condition of readmission.

**Continuous Graduate Enrollment (5899)**

Courses designated as 5899, Continuous Graduate Enrollment, are charged at the rate established for one credit hour. Registration, by mail or in person, must be completed by the end of the first week of a regular semester or of a summer session. Students may obtain a reference number for 5899 from the Registration and Records office.
Graduate students in good standing who have not enrolled for only one semester may re-enroll without applying for readmission. Students who attend other schools in the interim must submit transcripts of such work from each institution attended. Graduate students are considered inactive after a lapse of two or more regular semesters of enrollment. Subsequently, inactive graduate students who want to continue must follow the same admission procedures as those required for new applicants. After a lapse of three or more terms, graduate students will re-enter under requirements in effect at the time of readmission.

**Post-Baccalaureate, Non-Graduate Student Classification**

Students who have earned a baccalaureate degree and who are seeking only additional undergraduate courses may be admitted under a post-baccalaureate (code 4-E) classification. Students in this classification are restricted to enrollment in courses numbered 499 and below and may not take any courses for graduate credit. Courses taken while classified as a code 4-E student may not be included for credit on a graduate degree program at a later date. Code 4-E students wanting to reclassify as graduate students for a future term must reapply and be regularly admitted to the graduate programs in which they want to seek advanced degrees.

**Degree-Seeking and Non-Degree-Seeking Graduate Student Classifications**

Students admitted to any of the graduate classifications (whether degree seeking or non-degree seeking) will be enrolled automatically for graduate credit in courses numbered 300 to 499 unless they indicate on their enrollment forms that they do not want graduate credit for the course or the instructor specifies the course may only be taken for undergraduate credit. Courses numbered 299 and below may not be taken for graduate credit, are not calculated in a student's graduate grade-point average and cannot be included as credit courses on a graduate student's program of study.

The following six admissions categories are used for degree-seeking graduate students at UMKC:

1. **Regular Master's Degree Seeking - (Full Admit)** Degree-seeking graduate students admitted to a master's degree program without reservation.
2. **Conditional Master's Degree Seeking - (Provisional Graduate)** Degree-seeking graduate students admitted to a master's-level degree program who have not yet fulfilled all admissions requirements specified by the academic unit responsible for the degree program.
3. **Regular Educational-Specialist Degree Seeking - (Full Admit)** Degree-seeking graduate students admitted to an Educational-Specialist degree program in the School of Education without reservation.
4. **Conditional Educational-Specialist Degree Seeking - (Provisional Graduate)** Degree-seeking graduate students admitted to an Educational-Specialist degree program who have not yet fulfilled all admissions requirements specified by the School of Education.
5. **Regular Doctoral Degree Seeking - (Full Admit)** Degree-seeking graduate students admitted to a doctoral degree program (Ph.D. or D.M.A.) without reservation.
6. **Conditional Doctoral Degree Seeking - (Provisional Graduate)** Degree-seeking graduate students admitted to a Ph.D. or D.M.A. program who have not yet fulfilled all admission requirements specified by the academic unit responsible for the degree program.

Full admission of provisional graduate students to a degree program and appropriate reclassification are subject to students' removal of deficiencies and approval of satisfactory performance.

Admission to graduate study and to a particular degree program is no guarantee that students will be advanced to candidacy or granted a higher degree. All candidates are expected to perform at a consistently high level and to satisfy all the requirements for the degree. The final determination, as to whether or not students will be recommended for a graduate degree, is made by the graduate faculty in the fields concerned. The graduate faculty reserves the right to deal with exceptional cases on individual merit.

Degree-seeking graduate students who plan to change their field of study must reapply for admission and be regularly admitted to the desired graduate program in the new department or school.

The following three admission categories are used for non-degree-seeking graduate students:

1. **Non-Regular Graduate - Continuing Education, Non-Degree-Seeking Student - (College Continuing Education)**. Students taking courses for graduate credit through the Division of Continuing Education. It should be noted that admission to this category (generally through self-certification) does not constitute regular admission to a graduate program at UMKC. However, on the recommendation of the advisor and approval by the graduate officer, a limited number of graduate credit courses (normally no more than six credit hours) may be applied to individual degree programs after students have been regularly admitted to do graduate study (see Application for Graduate Study, above).
2. **Visiting Graduate Student - (Visiting)**. This includes students who have been properly certified as graduate students at an accredited institution other than UMKC, and have permission to enroll in specific courses (including 5000-level courses) at UMKC. Note: Students who have previously been enrolled in a UMKC graduate program must have been in good academic standing at the end of their last UMKC graduate enrollment to take graduate courses as a visiting graduate student.
3. **Graduate Special Non-Degree Seeking - (Non-Degree Graduate Special)**. This classification is used for three categories of students: (1) Community access, non-degree-seeking students wanting access to graduate level courses not available through continuing education; (2) Potential graduate applicants, not meeting requirements for conditional admission and wanting to take graduate-level courses in order to qualify for admission; and (3) Community access students applying to graduate certificate programs. The following restrictions apply to Non-Degree Graduate Special Classification graduate students:
   - Students apply to the academic unit, if declared. If undeclared, students are admitted as undeclared graduate students in the College of Arts and Sciences.
   - All graduate academic regulations apply.
• Students must have a baccalaureate degree prior to admission.
• Students are subject to the campus graduate academic probation and ineligibility policies.
• Students with a Non-Degree Graduate Special classification are not eligible for financial aid unless they are enrolling at least half-time in a graduate certificate program.
• International students may not be issued I-20 forms for admission under a Non-Degree Graduate Special classification.
• International students considered under the Non-Degree Graduate Special classification must meet the University standards for evidence of English proficiency.
• Students admitted under this classification must reapply to the academic unit and be admitted to a graduate degree program in order to be changed to degree-seeking status.
• At the discretion of a department or area, the graduate-level courses completed with a grade of B (3.0) or better while classified as a Non-Degree Graduate Special student may be applied toward a graduate degree in that department or area. Of the courses listed on a degree, no more than 12 semester credit hours may have been completed while enrolled as a Non-Degree Graduate Special student.

All non-degree-seeking graduate students (College Continuing Education, Visiting, and Non-Degree Graduate Special) wishing to enter a degree program must reapply for and be regularly admitted to the department or school from which they want to receive an advanced degree.

Exceptions to Academic Regulations

Campuswide Exceptions

Petitions for an exception to a campuswide graduate academic regulation must originate with the student. It must be processed through the graduate officer and dean or program director in charge of the student’s graduate degree program and forwarded to the dean of the School of Graduate Studies. Only the dean, or the designated representative, are authorized to grant an exception to the graduate academic regulations applying to all graduate students. Petitions must be in writing and include (1) the reason for requesting the exception and a detailed justification from the student; (2) recommendation for action by the appropriate graduate officer; (3) recommendation for action by the department or division chair (if applicable); and (4) recommendation for action by the appropriate dean or program director. The graduate dean or designated representative will review the petition and related documentation and render a decision which will be communicated in writing to the academic dean or director, the graduate officer, the student and the registrar.

Program-Specific Exceptions

Petitions for exception to a program-specific academic regulation are handled within the academic unit’s degree program. A graduate student who has petitioned for an exception to a program-specific academic regulation and whose petition has been denied may appeal the decision to the dean of the School of Graduate Studies if all other remedies have been exhausted at the department and college, school or program level. Appeals to the dean of the School of Graduate Studies must be made in writing within 14 consecutive days from the date the student received the written notice of the petition decision. The dean of the School of Graduate Studies will investigate the case and take appropriate action in a timely manner. The decision of the graduate dean, as the chancellor’s designated representative, is final and will be communicated in writing to the student, the graduate officer, the academic dean or director and the registrar.

Graduate Courses and Grading Policies

Course Designations

In general, courses numbered 5000 and above are open only to regularly admitted graduate and Ph.D. students.

Courses numbered 300 to 499 are upper division junior- and senior-level courses. Graduate students who enroll in such courses have the option of designating them, at the time of enrollment, as being “not for graduate credit.” If the student chooses this option, the grade will not be included in the student’s graduate grade-point average and the course may not be included on the graduate or Ph.D. program/plan of study and will not count toward a graduate degree. In order for a 300- or 400-level course to be accepted for graduate credit, students will be expected to do supplementary work (additional reading, projects, papers and contact hours with the instructor) and to demonstrate graduate-level competency and achievement in the subject. Also, students must take the course for graduate credit and complete it with a grade of B- (2.7) or better. The total number of acceptable 300- to 400-level courses to be applied to requirements for a graduate degree may not exceed 40 percent of the total number of courses applied to graduate or non-interdisciplinary doctoral-degree requirements, or one-third of the total number of courses on the approved Interdisciplinary Ph.D. plan of study.

Courses at the 100- and 200-level are not available for graduate credit and will not be applied toward the number of hours required for a graduate degree.

Courses numbered 5580 to 5589 generally are reserved for seminars, workshops and special topics. Consult individual degree programs for possible restrictions on such offerings. The course numbers 5590 to 5598 usually are reserved for non-thesis research, directed studies and readings. Courses numbered 5599 are restricted to research leading to a thesis. Considering this numbering system, no more than 40 percent of courses numbered 5590 to 5599, or other courses which fall in the categories listed above for that course number range, may be applied to a graduate degree program of study, with the exception of the Interdisciplinary Ph.D. study.

Courses numbered 5695 to 5699 are restricted to research leading to a dissertation. Continuous Graduate Enrollment is numbered 5899.
Course Restrictions
Policy on Admission of Undergraduates to Graduate-Level Courses
In addition to regularly admitted graduate students, seniors who meet the requirements below, and who have obtained the necessary approvals and received permission from the School of Graduate Studies may enroll in a limited number of courses numbered in the 5000 series and above, or may enroll in appropriate 300- and 400-level courses for graduate credit.

Minimum requirements
• Seniors within 12 credits of graduation who have a 3.0 GPA or better in their college work; or
• Seniors within 30 credits of graduation who have a 3.5 GPA in their college work.

To request permission to take a graduate-level course, the senior must:
1. Obtain a request to take graduate-level course form and an advising transcript from the Registrar’s Office. (Forms also are available on-line at http://sgs.umkc.edu/forms/.)
2. Fill out the request to take graduate-level course form, attach a copy of the advising transcript to the form and seek written approval on the form from the course instructor; the dean or director of the academic unit in which the requested course is offered; and the student’s undergraduate advisor.
3. Once the above steps have been completed, submit the form to the School of Graduate Studies for final approval. This last step should occur no later than four weeks before regular registration.

This policy does not generally apply to 5000-level courses in the Bloch School of Business and Public Administration open exclusively to graduate students. However, Bloch School seniors may begin work on the M.B.A., M.P.A. or M.S. in accounting degree if pre-approved by the Bloch School based on their formal application and admission to the graduate degree program.

This procedure is intended to allow a degree of flexibility in planning the academic programs of degree-seeking seniors who clearly have shown academic merit and plan to pursue advanced study after graduation. This option is not available for post-baccalaureate students (code 4-E).

In all cases, eligible students may enroll in no more than six credits of graduate-level courses or courses for graduate credit through this procedure. In addition, first-semester seniors who enroll in graduate-level courses are limited to a total enrollment of no more than 15 hours for the semester. Graduate-level courses (5000 and above) are to be selected from those courses generally offered to first-semester or first-year graduate students. Courses such as special topics, individual studies and directed research designed for advanced graduate students are not eligible under these provisions.

Students may petition that the courses can be taken for graduate credit or undergraduate credit. Credit may be applied to requirements for a graduate or a bachelor’s degree, but not both unless the course is part of an approved Bachelor’s-Master’s Dual Degree program or Bachelor’s-Graduate Certificate program to which the student has already been admitted.

Requests by students who meet all the requirements stated above will be approved by the dean of the School of Graduate Studies or designated representative. In exceptional cases, students who do not meet the requirements stated above may present a petition to the dean of the School of Graduate Studies. Such petitions must be presented to the school no later than four weeks before the beginning of the term for which enrollment is sought.

Students who do not meet the above criteria but who register for a graduate-level course will be withdrawn administratively from the course. Fees paid for the course will be refunded.

Graduate-Credit, Continuing Education Courses
Graduate-credit courses are offered on an irregular basis at both off-campus and on-campus locations through the Division of Continuing Education, in conjunction with various instructional divisions.

Students may enroll in such courses and earn graduate credit without being regularly admitted to a graduate program. However, application of such credits toward an advanced degree can be determined only after students have been regularly admitted to graduate study. Such application depends upon the acceptance of students and the course by the respective department or division offering the degree. Students are responsible for determining whether these credits will satisfy the requirements of their particular educational goals and should make such determination before registering for the course.

Grading System
The following is the +/- grading scale and grade-point system used at UMKC. This +/- grading scale and grade point system is used by all faculty, in all undergraduate, graduate, and professional programs.

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Description</th>
<th>Points per Semester Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>The highest grade</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td></td>
<td>3.7</td>
</tr>
</tbody>
</table>
In terms prior to and including 1985, any of the above grades might be preceded by an R indicating a repeated course. These grades are not included in either total hours or the grade-point average. (Examples: RC, RD, RF.) Since 1985, all grades, including those in repeated courses, are included in the GPA calculation. For the 1993 Fall Semester, UMKC began using the plus/minus grading system for grades A, B, C and D. The grade of A+ is valid only for students in the School of Law.

Incomplete Grades

An instructor may give a grade of incomplete (I) to students who have been unable to complete the work of the course because of illness or other valid reasons beyond their control. Students who receive an incomplete must complete the required work within one calendar year to avoid an F (failure without credit). The instructor may specify a shorter completion period. A grade of incomplete is only appropriate when enough work in the course has been completed that the student can finish the remaining work without re-enrolling in the course in question, or by attending additional classes. In other instances, students should withdraw. Students cannot re-enroll in a course for which an incomplete remains on the record. Furthermore, graduate students cannot graduate with an incomplete on their record.

This policy is exclusive of those courses which are considered directed individual studies; internships; special topics; practicums; research and thesis; and research and dissertation courses. Because completion of such courses will quite often span several terms, incomplete grades assigned in such courses will not automatically lapse to an "F" grade after one calendar year, but will adhere to the completion period specified by the instructor.

Policy on Repeated Graduate-Credit Courses

Whenever students repeat a graduate-credit course, they must submit a course repeat form to the Registration and Records Office no later than the fourth week of the term. Students seeking graduate degrees are limited to repeating no more than 20 percent of the credits applicable toward a graduate degree. If approved by the school or department or Interdisciplinary Ph.D. supervisory committee, students may repeat a course once to improve the grade-point average or satisfy the program requirements. The second grade received will be used to calculate the grade-point average that will be used in satisfying degree requirements.

Requirements for Retention

Graduate Probation Policy

Graduate students, regardless of classification, must maintain a 3.0 (B) grade-point average in all coursework taken for graduate credit at UMKC and must meet any additional academic requirements imposed by the school, department or Interdisciplinary Ph.D. discipline. Students are responsible for keeping apprised of their academic status by referring to term grades and their permanent academic record on file in the UMKC Registration and Records Office.

Whenever the cumulative GPA for UMKC courses taken for graduate credit by a graduate student of any classification falls below 3.0, the student’s status for the next term becomes: "On Probation - See principal graduate advisor." (Interdisciplinary Ph.D. students will be directed to consult their interim advisor or research advisor.) The principal graduate advisor, interim advisor or research advisor will review the student’s progress and provide counsel, and the following conditions apply:

- While on probation, a graduate student must achieve a 3.0 term GPA in order to enroll for the following term.
A graduate student on probation who is not restored to good academic standing by the end of two successive regular semesters following the term in which the cumulative GPA fell below 3.0 will be declared ineligible to re-enroll.

A graduate student on probation will not be restored to good standing until a cumulative graduate-credit GPA of at least 3.0 is achieved.

Ineligibility for Further Graduate Study

Ineligibility Following Academic Probation
In the case of ineligibility following academic probation, the graduate student may present a petition for re-enrollment to the principal graduate advisor of the student’s academic program. Petitions will be reviewed by the graduate faculty member responsible for the student’s degree program. That faculty member will make a written recommendation to the appropriate administrative levels within that academic unit approving or denying of the petition. The approval or denial action may include:

- Approval for further graduate study in the student’s current field of study and in the same classification but on a restricted probation basis (as defined in written contract).
- Approval for further graduate study in the student’s current field of study in a different student classification and on a restricted basis.
- Denial for further graduate study in the student’s current field but approval for undergraduate study only.
- Denial for further study, either graduate or undergraduate, in the student’s current field of study.

Ineligibility Due to Unsatisfactory Progress or Performance
When a department or school or Interdisciplinary Ph.D. supervisory committee, irrespective of a student’s grade-point average, considers a graduate student’s performance to be unsatisfactory, that department, school or committee may recommend to the dean or director of the academic unit in which the student’s degree is housed that the student be reclassified or declared ineligible for further study. The dean or director reviews the recommendation and conveys a decision to the respective faculty group and the student.

Students in programs other than the Interdisciplinary Ph.D. program who have been declared ineligible due to unsatisfactory progress or performance may appeal such decisions to the dean of the School of Graduate Studies, as designee of the chancellor. Students in the Interdisciplinary Ph.D. program may appeal such decisions to the provost, as designee of the chancellor. Such appeals must be made in writing within 14 consecutive days after receipt of the notification to the student of the decision.

The decision of the graduate dean or provost, as the chancellor’s designated representative in such cases, is final and will be communicated in writing to the following:

1. The student
2. The graduate faculty review group(s)
3. The academic dean or director
4. The registrar

Retroactive Withdrawals
A student may petition for Retroactive Withdrawal from a course(s) or from the university (all courses taken during that semester), if circumstances of a serious and compelling nature prevented the completion of course work and extenuating circumstances prevented submission of a regular withdrawal petition by the deadline on the Academic Calendar. In filing a Petition for Retroactive Withdrawal, withdrawal from all courses taken during the term in question is normally expected since ‘extenuating circumstances’ are not course-specific.

Petitions must be submitted to the School or College (academic unit) where the student’s current major is housed. Each academic unit will assemble a retroactive withdrawal committee that will make decisions on all retroactive withdrawal petitions. Approved retroactive withdrawal petitions which require a change of grade will follow standard change of grade procedures. A copy of the approved petition and supporting documentation should be attached to the grade change form when it is submitted to the Registration and Records office.

Petitions that are approved by the home academic unit for courses that reside outside of the home academic unit will be forwarded to the host academic unit retroactive withdrawal committee along with all supporting documentation. The host retroactive withdrawal committee will forward their decision back to the home academic unit.

If the petition for retroactive withdrawal is denied by either home or host retroactive withdrawal committee, the student has the right to appeal the decision to their home academic unit Dean. The decision of the home Dean is final.

If the home academic unit Dean approves a petition for coursework that is housed in a host academic unit, the paperwork will be forward to the host academic unit Dean for a decision. The host dean will forward their decision back to the home academic unit. The decision of the host Dean is final.

Students who submit a retroactive withdrawal are not typically candidates for fee refunds.

For courses taken while enrolled in the Interdisciplinary Ph.D. program in the School of Graduate Studies and the Schools of Dentistry, Law, Medicine, and Pharmacy, students should refer to the retroactive withdrawals policies and procedures of these schools as they may have more stringent requirements.
General Graduate Academic Regulations

Students are not a candidate for retroactive withdrawal if any of the following conditions are true:

You are applying because you are not satisfied with the grade you earned.
You are applying because you neglected to formally withdraw from the course(s) in question.
You were not aware of the withdrawal deadlines.
You changed your major and are now working towards a major or degree which does not require this course.
You assumed non-academic activities which restricted your time for academic pursuit.
You were ill or you suffered stress as the result of an accident, death, family crisis, or other crisis early enough in the semester to have withdrawn during the semester.

You have already received a UMKC degree for which the course(s) in question were applied towards degree requirements and/or your UM GPA.

If any of the above are found to be true of your case, your request for retroactive withdrawal will be denied.

Students may be candidates for retroactive withdrawal if any of the following conditions are true:

There was a documented administrative error that affected your enrollment in one or more courses.
You have documentation of a serious illness that affected your ability to complete all of your coursework after the withdrawal date.
You encountered documented extreme and unusual circumstances which a) were beyond your control, b) occurred after the withdrawal date, and c) could not have been addressed during the term in which the course(s) was taken.

Process for submitting a Retroactive Withdrawal Petition:

1. To withdraw retroactively from the university or specific courses, the student must present official supporting documents which demonstrate serious and compelling reasons (usually due to serious accident or illness) justifying the withdrawal and extenuating circumstances justifying its 'retro' nature.
2. The student collects supporting documentation submits the entire package (Retroactive Withdrawal form and official supporting documentation) to the School or College where their major is housed.
3. All decisions will be made by each School or College Retroactive Withdrawal or Petition for Exception Committee.
4. Individual instructor’s feedback should be considered with all petitions.
5. Once a decision is made the home School or College will send all documentation to the Registration & Records Office.

The retroactive withdrawal policy is effective as of Summer 2010 and applies to all students, regardless of the catalog year the student entered the University.

Requirements for Graduation

Program of Study

Graduate education is intended to answer the personal needs of students and the special needs of society not satisfied through undergraduate training. Graduate degrees indicate that the holders have sufficiently mastered a program in a particular field to pursue creative projects in that specialty. The degrees are awarded for completion of a coherent program -- formalized as the program or plan of study -- designed to assure the mastery of specified knowledge and skills. Forms for specifying individual programs or plans of study are available from the principal graduate advisor (Arts and Sciences) or graduate officer of the academic unit.

Students may elect to fulfill either the degree requirements in effect at the time of their original admission (provided there has not been a lapse in attendance at UMKC of more than two consecutive terms) or the degree requirements in effect at the time of advisement into a planned graduate program of study.

No course at the 300- or 400-level taken on a credit/no credit basis; no 300- or 400-level course with a grade below B- (2.7); and no 5000-level or higher course with a grade below C (2.0), will count toward any advanced degree program. Additionally, 80 percent of the credits for the degree must be passed with a grade of B (3.0) or better. Students admitted to the combined J.D./MBA program must receive grades of B or better in 80 percent of Bloch School courses. Because of different grading standards, the transferred law hours are not included in the 80 percent calculation. Degree programs may have requirements which are more stringent. If so, the program requirement takes precedence over the campus minimums. Final GPA at the time the degree is conferred (graduate certificates, masters and PhD degrees) must be 3.0 or higher for courses completed on the plan of study. Exceptions to this policy require a petition signed by the student’s advisor and the Dean of the School of Graduate Studies.

Thesis and Dissertation Preparation and Approval Process

Formatting Regulations

Some master’s degree programs have a thesis requirement and some have a thesis option. All Ph.D. degree programs at UMKC require a dissertation. The School of Graduate Studies, guided by the Graduate Officers Committee, establishes the format regulations for theses and dissertations (T/Ds).
at UMKC. Degree candidates are responsible for familiarizing themselves with and adhering to the standards of the latest edition of the "Manual for Writers of Term Papers, Theses and Dissertations" edited by Kate Turabian. They also must become familiar with the special format regulations for title page; abstract format and length; approval page; order of manuscript sections; paper; page numbering; heading levels; margins; and type style and size; which are outlined in the "University of Missouri-Kansas City Guide to Formatting Theses and Dissertations" which is available online at http://sgs.umkc.edu/current-students/thesis-dissertation-guidelines. Bibliographic references must follow Turabian guidelines unless the student's academic program has an alternate bibliographic reference format approved by, and on file with, the School of Graduate Studies. Candidates should check with the principal graduate advisor in their respective academic units to determine the approved bibliographic reference format standard for their degree programs. Any variances from the standards outlined in the "University of Missouri-Kansas City Guide to Formatting Theses and Dissertations", Turabian and discipline-approved bibliographic reference styles must be requested in writing and approved in advance by the dean of the School of Graduate Studies. A copy of the dean's official letter authorizing exceptions to formatting standards must be included as an appendix to the T/D.

The School of Graduate Studies provides formatting workshops at the beginning of each fall and spring semester. In addition, degree candidates may schedule individual conferences with the school's T/D Formatting Specialist during the first four weeks of the fall or spring semester and the first two weeks of the summer term to make sure they have interpreted the formatting guidelines correctly and to seek guidance on specialized formatting problems. Candidates should call the School of Graduate Studies office, (816) 235-1161, for time and place of workshops or to schedule a formatting conference.

Supervisory Committee Review and Approval of T/Ds
Approval of the T/D begins with the degree candidate's supervisory committee. Candidates work closely with their research advisors while writing the various sections of the manuscript. The candidate's supervisory committee shall ensure that the scholarly content and style of the T/D is in keeping with recognized standards of the chosen discipline(s). Graduate degree candidates should periodically provide all members of their supervisory committee with preliminary drafts of the T/D for review and comment. Final drafts of the T/D, which incorporate all substantive revisions supervisory committee members have previously requested, should be submitted to all members of the candidate's supervisory committee at least eight weeks before the expected date of graduation. For both master's and doctoral-level degree candidates, when the supervisory committee members feel the work is complete and ready for final defense by the candidate, the committee members notify the supervisory committee chair by completing a Master's Pre-Oral Defense form or Doctoral Dissertation Pre-Oral Defense form and forwarding it to the supervisory committee chair. The supervisory committee chair and student may then schedule a final defense of the work.

School of Graduate Studies Review and Certification of Acceptance of T/Ds
The deadline for submitting the T/D to the School of Graduate Studies for certification of acceptance is printed in the calendar section of the schedule of classes for each term. The actual date varies, but it is approximately six weeks before the end of the fall or spring semesters and four weeks before the end of the summer session. Prior to the published deadline for the term in which the degree candidates expect to graduate, they must present the following to the School of Graduate Studies office:

- One unbound copy of the T/D in final form, but not printed on archival quality, acid-free paper.
- The signed Preliminary Approval of T/D by Supervisory Committee form.

T/Ds normally will not be accepted for review for graduation during the current term unless they are received in the School of Graduate Studies by the published deadline. In the school, the T/D is reviewed by a Thesis/Dissertation Formatting Specialist for conformity to the campus formatting standards and by the graduate dean for quality of content. The school's review process generally takes from two to four weeks. The candidate will be notified to pick up the T/D and make all necessary formatting corrections before resubmitting the T/D to the School of Graduate Studies. Candidates who are out of the city must make arrangements to have the copy picked up locally or returned, collect, by messenger service.

After the T/D defense, the student should submit a corrected final draft on plain paper to the School of Graduate Studies. This draft should be accompanied by the Master's Thesis Final Defense Evaluation forms or Doctoral Dissertation Final Evaluation forms completed by each committee member. The graduate dean will review the thesis or dissertation for certification of acceptance. If the T/D has significant formatting problems, it will be returned to the candidate without further review or certification. The candidate will be required to make all necessary formatting corrections and resubmit the T/D to the School of Graduate Studies. If this happens, the candidate's graduation may be delayed. Enrollment in an additional term of continuous-graduate enrollment may be required.

Preliminary approval forms, Master's Thesis Preliminary and Final evaluation forms and Doctoral Dissertation Preliminary and Final evaluation forms are available from the School of Graduate Studies office in the Administrative Center (5115 Oak St.) and online at sgs.umkc.edu/guidelin/index.asp (http://sgs.umkc.edu/current-students/thesis-dissertation-guidelines).

When both components of the School of Graduate Studies review of the T/D are complete, the candidate is notified. If further format corrections are required, the School of Graduate Studies will hold the certificate of acceptance until appropriate revisions are made and rechecked by the formatting specialist. The candidate then picks up the certified copy of the T/D and the certificate of acceptance from the School of Graduate Studies office and may prepare their final copy to upload to ProQuest. (See Final Thesis Examination and Supervisory Committee Approval under Master's Degrees Academic Regulations and Final Dissertation Examination under Doctoral Degree Programs (Ed.D., Ph.D., D.M.A.) later in this section.) Candidates who are out of the city must make arrangements to have the certified copy picked up locally or returned, collect, by messenger service.
Deposit of T/Ds with the Library
The candidate makes any final revisions requested by committee members at the defense or the School of Graduate Studies and then uploads an electronic copy of the document in portable document format (PDF) to ProQuest. The PDF copy is then transmitted to the University of Missouri system institutional repository, MOSpace, where the document is made available via the world wide web. As an added optional service, ProQuest will handle the copyrighting process for theses and dissertations, if desired. Students will pay an archival copy fee when they upload the document, plus an additional fee if they choose to have ProQuest handle the copyright registration. Submission to ProQuest must be accomplished no later than the Friday immediately preceding the first day of classes for the next term.

Thesis/Dissertation Embargo Policy

Purpose:
As a model urban research university, UMKC takes great pride in the scholarly and creative contributions of its students and faculty. These works should be shared with the academic community as soon as possible. The School of Graduate Studies requires that all theses and dissertations be made publicly available upon degree conferral. In limited circumstances, there may be a reason to delay the public access to a dissertation for a short period of time. The School of Graduate Studies will consider requests for delay in public access to a dissertation if:

1. The student (or his or her collaborators) is applying for a patent on research contained in the dissertation, and does not wish to make the contents public until the patent application has been filed.
2. Patentable rights in the work or other issues in which disclosure may be detrimental to the rights or interests of the author.
3. The need to prevent disclosure of any sponsor information about persons, institutions, technologies, and proprietary information that has restricted time frames.
4. The interest of an academic or commercial press in acquiring the rights to publish your dissertation or thesis as a book or composition.
5. Content that is likely to be or has already been submitted to a peer-reviewed journal.

Although there may be additional circumstances in which a student may request an embargo, the School of Graduate Studies will generally not approve requests to restrict access to thesis/dissertations without compelling reasons.

Embargo Policy: A graduate student or their advisor may apply to the School of Graduate Studies to delay the distribution of their master's thesis or doctoral dissertation for a limited amount of time (1 year). Such requests must be reviewed and approved by the chair (and co-chair, if any) of the dissertation committee, and approved by the Dean of the School Graduate Studies. Additional time may be requested under unusual circumstances, although approval is not guaranteed. It is the student's responsibility to request the embargo and any possible extension, if applicable. Although the full text of thesis or dissertation will be embargoed, the title and abstract will be made available after degree conferral.

It may be possible to request an extension of the original embargo in one-year increments. Requests for an extension should be directed to the School of Graduate Studies. Documentation of a pending publishing contract or sponsor imposed restrictions is required for an extension. It is the graduate’s responsibility to request an extension.

When dissertations are submitted in digital form, public access to the digital form of the dissertation poses another question for some new graduates. Selected journals and publishers have adopted policies that prohibit the publication of material that has been widely distributed on the web. If the dissertation is submitted electronically, and made easily available to the public through search tools, this small group of publishers may consider the dissertation “pre-published,” and will not consider it for publication. To address this issue, we will give students the option to limit digital access to their dissertations to users at the University of Missouri-system for a limited period of time. Not to exceed 3 years from the date of degree conferral. With this restriction on public access, the dissertation will not be considered “pre-published.”

Application for Graduation
Completing degree requirements does not automatically result in conferral of the degree. Students must request that the University review their academic record and certify that degree requirements have been met. To make this request, students must file applications for graduation with the registrar no later than the end of the fourth week of the semester in which the degrees will be completed. Students graduating at the end of the summer session must file an application for graduation no later than the end of the second week of the summer session. An approved program/plan of study must be on file with the registrar at the time the student makes application to graduate. Filing applications for graduation initiates degree checks in the Registrar’s Office. The students and their advisors receive a degree checklist which indicates any deficiencies the students must clear. Students should contact their advisors if there are questions about the checklist. The application for graduation also places candidates’ names in the commencement program. In addition, when completion of degree requirements have been certified by the registrar, the Registrar’s Office authorizes the diploma order.

Specific term deadlines for all graduate requirements are announced in the schedule of classes for each term. Students are responsible for being aware of and meeting these deadlines.

The registrar will certify degree completion if students’ academic records (transcripts) show that they have completed all of the requirements listed on the approved program/plan of study.
Commencement
Advanced degree candidates are urged to attend commencement. Students should arrange for rental or purchase of a cap and gown at the University Bookstore at least six weeks before the graduation date.

Time Limit on Degree Credit for Master’s and Educational-Specialist Degrees
Credit over seven years old at the time of graduation, which is included on the master’s or educational-specialist program of study and has not been applied to a previous degree, may not be counted toward the fulfillment of a graduate degree program unless validated to the satisfaction of the department or school and the School of Graduate Studies. Petitions and affidavits for this purpose may be obtained from the School of Graduate Studies. A maximum of 30 percent of the student’s program of study may be validated under this procedure.

In connection with an authorized leave of absence, an exception to the time limitation may be approved in advance.
Master's Degrees Academic Regulations

The following general campus regulations pertain specifically to the master's degree. Master's students also should refer to Graduate Academic Regulations (p. 1189) earlier in this catalog section for regulations common to all graduate degrees at UMKC and to specific degree program requirements in other sections of this catalog.

Advisor/Supervisory Committee

Upon admission to a graduate program, a student seeking a master's degree will contact the appropriate department chairman of the College of Arts and Sciences or the graduate officer of the professional school or program. This person will assign the student an advisor who is a member of the graduate faculty. When research and a thesis are degree requirements or the student has selected a thesis option, the Arts and Sciences department chair or the school's graduate officer will appoint two additional faculty members to serve on the graduate student's supervisory committee. The chair and a majority of the members of a master's student supervisory committee must be full members of the graduate faculty.

Qualifying Examination

If required, a qualifying examination must be passed before a master's program is filed with the graduate officer. The department or school will notify students of the time and date of the examination. The results of the qualifying examination will be reported to the registrar. With the approval of the advisor and the supervisory committee, if such exists, students may take the qualifying examination a second time.

Master's Degree Program of Study

In consultation with the advisor or the supervisory committee, the master's student plans a program of study in accordance with the minimum requirements listed here and the specific degree requirements listed elsewhere in this catalog. Forms for specifying individual programs of study are available from the principal graduate advisor or graduate officer of each academic unit. Students should file this program of study with the departmental principal graduate advisor (College of Arts and Sciences) or the graduate officer in their academic units before 60 percent of the coursework applicable to the degree is completed. In the College of Arts and Sciences, the principal graduate advisor secures required departmental approval and forwards the program of study to the graduate officer of the college.

After the proposed program has been approved, as required by the academic unit, the unit's graduate officer will distribute copies of the program of study to the registrar, the student's advisor or chair of the student's supervisory committee, the principal graduate advisor (Arts and Sciences) and the student.

The approved master's degree program of study must include a minimum of 30 graduate credits. No more than 40 percent of the credits on the program may be 300- and 400-level courses. At least 60 percent of the credits must be at the 5000 level or higher. Further, up to six credits may be allowed for Research and Thesis (5599). Other demonstrations of skills considered by the department or school as comparable to the thesis may be accepted. No more than 40 percent of the courses applied toward a master's degree program of study may be in the non-thesis research, directed studies, readings or research and thesis categories. Such courses normally fall in the 5500 to 5599 range, but the numerical designations may vary among academic units.

Program Changes

Subsequent changes in the program of study must be approved by the student's advisor, the supervisory committee and the appropriate dean or department chair. The graduate officer will inform the registrar of such changes. If cumulative changes in courses or degree requirements exceed four, a new program of study should be filed.

Dual Degree Programs at the Master's Level

Dual-degree programs allow students to simultaneously pursue degrees at the master's level in two fields of study. Students must complete at least 80 percent (rounded up) of the credit hours required for each degree separately. Students must satisfy admission, course and examination requirements of both degree programs.

Transfer Credit Policy for Master's Degrees

A maximum of 20 percent of the graduate credit hours appearing on the program of study (rounded up) may be transferred from a recognized graduate school for a master's degree at UMKC. Such transfer credits must meet with approval of the student's supervisory committee and appropriate principal graduate advisor (College of Arts and Sciences) or graduate officer and be in accordance with all of the following criteria:

1. The coursework must be:
   • Offered by an accredited school.
   • Applied toward a graduate degree at the host institution and taken for graduate credit.
   • Approved by the appropriate graduate faculty.

2. A grade of B (3.0) or higher for 300- and 400-level courses and C (2.0) or higher for 5000-level courses or other courses restricted to graduate students only must have been earned. (CR or P will be accepted on receipt of a statement from the institution where credit was received of letter grade equivalent meeting grade standards as stated above.)
Transfer credit may be allowed for correspondence courses, provided the credits meet the criteria outlined in 1 and 2 above. Transfer credit will not be accepted for research and thesis/dissertation hours (defined by UMKC), travel experience or work/life experience. Foreign university transfer credit must meet the above criteria as attested by the registrar.

A majority of the coursework applicable to any graduate degree at UMKC must be completed at UMKC. UM traveling scholar credits are not considered transfer credits. However, the sum total of credits from other UM campuses, and other transfer credits (not more than 20 percent of the total credits) cannot exceed 14 credits on a 30-credit master's degree program, or a proportional equivalent (approximately 46 percent) on programs exceeding 30 credits; and must be within the limits stated above.

A student who has been awarded a master's degree at UMKC or another regionally accredited graduate school may petition the faculty to apply up to six hours of graduate credit earned on the first degree toward meeting the requirements of a second master's degree. Credit, so approved, not from UMKC will be subject to all preceding transfer credit criteria.

See the sections on specific degree programs for requirements pertaining to transfer credit for educational-specialist and doctoral degrees.

After approval of the program of study, graduate credit may be earned at another institution only with prior approval of the dean of the School of Graduate Studies. Forms to request such approval are available from the Registration and Records Office. A current catalog of the institution where the course is to be taken or an official catalog description of each course must be attached to the request form. The official transcript for such work must be forwarded to the Registration Office upon completion of the course.

**Final Master's Competency Examination**

The final master's competency examination, if required, will be written, oral or both at the discretion of the school or department, and will be passed no later than three weeks prior to the anticipated date of graduation. Students will submit a request for the examination to the advisor no less than two weeks before the examination is to be taken. The candidate's supervisory committee chair will report the results of the final competency examination in writing to the candidate and to the principal graduate advisor (Arts and Sciences) or graduate officer, who will then inform the registrar.

**Thesis Definition**

A thesis is a process that results in an original composition that involves quality work and creativity. This may include definition of goals or research questions, a review of the existing literature or background information, collection of data or information to present as results, and a discussion of results and findings, and citations. The research and final document should be of appropriate scholarly quality, as judged by the thesis committee.

**Thesis Preparation and Approval**

For regulations pertaining to thesis preparation and approval, the reader is directed to Thesis and Dissertation Preparation and Approval Process, included under Graduate Academic Regulations (p. 1189) in this section.

**Final Thesis Examination and Supervisory Committee Approval**

The format and procedures of the final examination in defense of the thesis are determined by the supervisory committee and its chair. This examination may not be administered when UMKC is not officially in session. The defense of the thesis is approved when a majority of the supervisory committee members recommend approval and sign the Report of the Result of Final Master's Thesis Examination form and the committee approval page in the thesis.

Within 48 hours of the defense, the supervisory committee chair shall report the results of the final thesis examination in writing to the candidate and to the departmental principal graduate advisor (Arts and Sciences) or graduate officer, who then informs the registrar.

**Deposit of Approved Thesis with Libraries**

For regulations pertaining to deposit of approved thesis with libraries, refer to Thesis and Dissertation Preparation and Approval Process, included under Graduate Academic Regulations (p. 1189) in this section.
Doctoral Degree Programs (Ed.D., Ph.D., D.M.A.)

The Ed.D., Ph.D. and D.M.A. degree programs at UMKC have the following elements in common:

- Appointment of supervisory committees.
- Approval of doctoral programs or plans of study.
- Satisfaction of a doctoral residency requirement.
- Satisfactory completion of a doctoral comprehensive examination in order to advance to candidacy.

In addition, all Ph.D. programs and the Ed.D. program have the following elements in common:

- A work of original research or scholarship reported in dissertation form.
- Formal defense of the candidate’s dissertation.

The specific requirements for satisfying these common elements may vary from program to program. Doctoral students are also subject to most of the minimum general graduate academic regulations and degree requirements listed in previous portions of this catalog section.

The following general regulations are minimum requirements. Each degree program may have regulations that are more stringent and would take precedence over the minimums stated previously. Refer also to graduate regulations described in previous sections that are common to all graduate or doctoral students and to degree requirements listed under the academic unit sections of this catalog.

Supervisory Committee

At the request of the non-interdisciplinary Ph.D. student, the D.M.A. student or the Ed.D. student, and upon the recommendation of the student’s advisor, the graduate officer for the degree program will appoint a supervisory committee consisting of at least three members of the graduate faculty, including the student’s advisor. While the chair of the initial supervisory committee can be a member of the graduate faculty, once the student has reached the dissertation stage, the committee must be chaired by a member of the University of Missouri doctoral faculty. In some cases, following the procedures of the specific program, the dissertation director need not be the chair of the committee but must be, at a minimum, either a graduate faculty or adjunct graduate faculty member.

Non-interdisciplinary Ph.D. and D.M.A. student dissertation committees must have at least five members and Ed.D. student dissertation committees must have at least four members. The majority of the members of the non-interdisciplinary Ph.D., Ed.D. and D.M.A. dissertation committees must be doctoral faculty or regular graduate faculty members. Three of the five members of Interdisciplinary Ph.D. student supervisory and dissertation committees must hold doctoral faculty status. See the Interdisciplinary Ph.D. academic regulations section (p. 1232) for additional specifications for Interdisciplinary Ph.D. supervisory committees.

Qualifying Examination

The qualifying examination, if required, will be given before the doctoral program of study is filed with the graduate officer. At the discretion of the school or department and the supervisory committee, a master’s degree from UMKC in the area of intended specialization may be considered as a substitute for the qualifying examination. Students must submit a request to take the qualifying examination to the appropriate department chair in the College of Arts and Sciences or the dean of that professional school. The results of the qualifying examination will be reported to the graduate officer, who will inform the student and the registrar. With approval of the advisor and supervisory committee, students may take the qualifying examination a second time.

Doctoral Programs of Study

Students should plan their programs of study in consultation with their advisors and supervisory committees. Forms for specifying individual programs of study are available from the principal graduate advisor or graduate officer of each academic unit. It is recommended that students file this program of study with the graduate officer in their academic units before 60 percent of the coursework applicable to the degree is completed. (Interdisciplinary Ph.D. students must file their proposed plans of study and form their supervisory committees within 24 months of being admitted.) No more than 40 percent of the program may be 300- and 400-level courses. After the proposed program has been approved, as required by the academic unit, the unit’s graduate officer will distribute copies of the program of study to the registrar, the advisor and the student.

Subsequent changes in the program of study must be approved by the student’s advisor, supervisory committee, the dean or department chairperson of the school in whose area the specialization is offered and the graduate officer, who also will inform the registrar of such changes. If cumulative changes in courses and degree requirements exceed four, a revised program of study should be filed.

Transfer Credit

Graduate credit earned before entering a UMKC doctoral program may be applied to the doctoral degree if it is of acceptable quality and appropriate to the student’s program of study as determined by the student’s academic unit and supervisory committee. The total amount of graduate credit earned from all other academic institutions before admission to a UMKC doctoral program and applied to the doctoral degree cannot exceed half the number of credit hours, exclusive of dissertation research credits, required for the degree. For graduate coursework completed at UMKC prior to admission to a doctoral program, any number of credit hours required for the doctoral degree, exclusive of dissertation research, can be satisfied using previous
UMKC graduate credit if approved by the student’s academic unit and supervisory committee. All graduate coursework, completed prior to admission and not used to earn the master’s degree or educational-specialist degree, must be no more than seven years old at the time the doctoral program of study is approved.

After admission to the doctoral program, if a student wishes to take graduate coursework at another institution and apply it to their doctoral program, the student must receive written approval from the doctoral program’s graduate officer and from the student’s supervisory committee chair, as appropriate, before the coursework is taken. Such coursework is not considered as transfer credit. Upon completion of the coursework, the student must have the official transcript forwarded to the UMKC registrar.

Residency Requirements
Interdisciplinary Ph.D. Students
Interdisciplinary Ph.D. students must satisfy the doctoral residency requirement by satisfactory completion of at least 18 credits in no more than 24 consecutive months. When satisfying the residency requirement, all Interdisciplinary Ph.D. students are subject to the following restrictions:

1. The doctoral residency requirement must be satisfied no later than the end of the semester in which the student completes his or her comprehensive examinations.
2. Students must achieve a cumulative graduate grade-point average of at least 3.0 in all courses counted toward satisfying the residency requirement.
3. Dissertation research credits (696 to 699) may not be counted toward satisfying the doctoral residency requirement.

Non-Interdisciplinary Ph.D. and Ed.D. Students
The residency requirement for the Ed.D. student or non-interdisciplinary Ph.D. may be satisfied using the same guidelines stipulated for Interdisciplinary Ph.D. students, or in any one of the following alternate ways:

1. Two consecutive semesters of 12 credits each term of resident coursework at UMKC.
2. Three terms of eight credits each term of resident coursework at UMKC, to be completed within 18 months.
3. Two consecutive semesters of nine credits each term of resident coursework at UMKC while employed at least half time for the University in teaching or research.

D.M.A. Students
The residency requirement for the D.M.A. may be satisfied in any one of the following ways:

1. Two consecutive semesters with a minimum of nine credits each.
2. One semester with a minimum of nine credits and two summer sessions with a minimum of five credits each, provided that the full-time semester is adjacent to one of the summer sessions. It is expected that the summer sessions be consecutive.
3. Completion of 24 credits within 18 consecutive months.

Comprehensive Examination
To advance to degree candidacy, doctoral students are required to pass a comprehensive examination. D.M.A. students selecting a non-dissertation option may satisfy the comprehensive examination requirement during their final semester. For all other doctoral students, the comprehensive examination must be successfully completed at least seven months before the date of graduation:

- For graduation in May: Nov. 1.
- For graduation in July: Dec. 1.
- For graduation in December: May 1.

The following requirements must have been met before students can take the comprehensive examination(s):

1. Assignment of a supervisory committee. (In Counseling Psychology and Psychology the examination committee is separate from the dissertation committee).
2. Successful completion of the qualifying examination, if required.
3. Filing and approval of the program of study and completion of essentially all coursework required for the degree.
4. If required by the academic unit, satisfactory demonstration of foreign language proficiency through accepted coursework or other evidence specified by the student’s supervisory committee.
5. Completion of residency in most cases.

The comprehensive examination may be written, oral or both. The exam is scheduled either through their advisor or in some departments the exam is set on a calendar basis (e.g., Counseling Psychology and Psychology). Through either their advisors or their department, students will apply to either their graduate officer in their academic unit or their department for an examining committee to be composed of a minimum of five members of the graduate faculty with the exception of Counseling Psychology which requires four members. In most cases the examination committee is also the
dissertation advisory committee, in other cases the dissertation committee is formed after successful completion of the comprehensive examination. If an oral examination is required as part of the comprehensive examination, all members of the examining committee are required to attend the entire exam. Synchronous modes of communication or committee substitutes are allowed if approved by the graduate officer where the degree or primary discipline resides, in consultation with the chair of the student’s examining committee, when physical presence conflicts with a major commitment.

The examination will be arranged and supervised by the advisor or other department official in the case of Psychology and Counseling Psychology. It will generally terminate within one month after it starts, but longer periods may be required in specific disciplines. Upon satisfactory completion of the examination, the student’s advisor sends a report of the results of the examination, with the signatures of all members of the examining committee, to the graduate officer, who, in turn, informs the student and the registrar.

A student is considered to have passed the comprehensive examination if all, or all but one member, of the examining committee vote that the candidate passes. If failure is reported, the examining committee will either recommend termination of status as a doctoral student or suggest additional work or other remedial measures. Furthermore, a student who has failed may not take a second examination for at least 12 weeks. Failure of a second comprehensive examination shall automatically preclude candidacy at this institution.

Non-Interdisciplinary Students in Counseling Psychology and Psychology

The Ph.D. programs in Counseling Psychology and Psychology have specific procedures in place for their respective comprehensive exams that are designed to meet the unique requirements of preparing professional psychologists. Please refer to the respective programs for details about their comprehensive examinations.

Program Time Constraints

The doctoral student must take and pass the doctoral comprehensive examination and advance to candidacy within five years from the beginning of doctoral coursework (within four years if entering with a master’s degree in the same or closely related field). After the establishment of degree candidacy, a maximum of five years will be allowed for completion of degree requirements. Failure to complete the work within the periods specified will necessitate re-evaluation of the entire program and may result in a notice of termination. In compelling circumstances and on the written recommendation of a majority of the student’s supervisory committee members, the dean of the School of Graduate Studies may grant a one-year extension. Some academic units may impose more stringent time requirements.

Required Enrollment

See Continuous Graduate Enrollment Requirement, included in the Graduate Academic Regulations part of this section.

Dissertation and Completion of Degree

Dissertation Definition

A dissertation is a written coherent treatise culminating from original in-depth research, that is of publishable quality for a peer refereed journal and deserving of the highest academic degree, a Doctor of Philosophy. The work should move the field forward by making significant contributions to the existing body of knowledge. It may include statement of goals, an in depth review and critical analysis of the existing literature and background information, a plan of research or methodology, collection and analysis of data to present as results, a discussion of the findings, and citations.

Doctoral Dissertation Requirement

All UMKC Ph.D. degrees and the Ed.D. degree require a dissertation as the final component of the program. The dissertation is also a requirement in some D.M.A. programs and an option in others. The doctoral faculty view the dissertation as one of the most important aspects of the student’s experience because:

• It is a work of original research or scholarship that makes a contribution to existing knowledge.
• It is an educational experience that demonstrates the candidate’s mastery of research methods and tools of the specialized fields.
• It demonstrates the candidate’s ability to address a major intellectual problem.

For regulations pertaining to formatting the dissertation and the process for approval, the reader is directed to Thesis and Dissertation Preparation and Approval Process, included under Graduate Academic Regulations in this catalog section.

Final Dissertation Examination

Final examinations in defense of the dissertation are open to all members of the doctoral faculty, who may attend as interested observers. The format and procedures of the defense are determined by the supervisory committee and its chair. The date, time and location must be announced and published at least two weeks before each final examination takes place. This examination may be conducted only after the dissertation has been approved by the dean of the School of Graduate Studies, and may not be administered when UMKC is not officially in session. All members of the dissertation committee, or substitutes approved in consultation with the chair of the committee by graduate officers in the academic units where the degree or primary discipline resides, are required to attend the entire examination. Synchronous electronic modes of communication are allowed for committee members when physical presence conflicts with a major commitment upon approval of the graduate officer.

The defense of the dissertation is approved when a majority of the supervisory committee recommend approval and sign the Report of the Result of Final Doctoral Examination form. Within 48 hours of the defense, the supervisory committee chair will report the results of the final dissertation
examination in writing to the candidate. For non-interdisciplinary doctoral candidates, the supervisory committee chair also will report the results of
the defense to the principal graduate advisor (Arts and Sciences) or graduate officer. The departmental principal graduate advisor (Arts and Sciences)
or graduate officer, in turn, informs the registrar.

Deposit of Approved Dissertation with Libraries
For regulations pertaining to deposit of the approved dissertation with the libraries, refer to Thesis and Dissertation Preparation and Approval Process,
including under Graduate Academic Regulations in this catalog section.
Dual Degree Programs at the Master’s Level and Bachelors + Master’s or Graduate Certificate Level

Dual-degree programs allow students to simultaneously pursue degrees at the master’s level in two fields of study or a Bachelor’s plus either a Master’s or Graduate degree. For dual Masters degrees, students must complete at least 80 percent (rounded up) of the credit hours required for each degree separately. Students must satisfy admission, course and examination requirements of both degree programs.

For dual Bachelors plus Master’s or Graduate Certificate programs, a maximum of 9 credit hours from the BS degree program may be applied toward the Master’s degree depending on what the department or home degree program has approved. The hours and grades earned on these credits will be applied toward the Bachelor’s degree. The number of dual hours will also be credited toward the total hours needed for the Master’s degree without the grades being computed into the GPA.
Foreign Language Proficiency - Graduate Students

Degree-seeking graduate students whose degree program requires foreign language proficiency may take the courses numbered 120, 211 or 221 (Elementary Level II, Second Year Level I or Second Year Level II) in one foreign language to fulfill the requirement (check with your graduate advisor to determine what proficiency level and language your degree program demands). The degree program will determine what grade will be accepted as proof of fulfillment.

Students who already have the required level of proficiency but no documented means of showing it may choose to take the final exam associated with the appropriate class level to fulfill their degree program’s language requirement (course number 120, 211 or 221). After taking the exam a letter stating the student’s results will be sent to the graduate advisor of the student’s degree program.

To arrange to take the exam, please contact the undergraduate advisor for your language or contact the Department of Foreign Languages and Literatures secretary for more information.

(For students whose program allows a general interest reading exam, the Foreign Languages and Literatures Department’s approved exam is administered by American Council on the Teaching of Foreign Languages (ACTFL). Please contact the department for information on how to register for this on-line exam).
International Graduate Student Admission Policies and Procedures

General Graduate Admission Policies

Minimum Admission Requirements

Graduates of schools outside the U.S. may be considered for admission to a graduate degree program at UMKC, subject to the following criteria.

1. They must have completed a course of study at least the equivalent of a U.S. baccalaureate degree.
2. They must have above-average grades in previous college study.
3. They are required to establish proof of adequate English proficiency as part of the UMKC admissions process. Applicants from countries in which English might be one of the official languages, but is not necessarily the first language of the majority of the population, must attain a minimum composite score of either 213(CBT) or 80(iBT) on the Test of English as a Foreign Language (TOEFL), or a score of 6.0 on the International English Language Testing System (IELTS) to be considered for admission. Exceptions to this policy:
   - Non-native speakers who hold degrees or diplomas from post-secondary institutions in English-speaking countries [the full list of countries may be found http://info.UMKC.edu/ISAO/wp-content/uploads/2015/06/Countries-Exempt-from-TOEFL-or-IELTS.pdf], provided they have spent a minimum of two years or a total of 60 credit hours in successful full-time study there and English was the medium of instruction.
   - International transfer students from other institutions in the United States or Canada who have spent a minimum of two years in successful full-time study.
4. In addition to 1 through 3 above, international graduate students must satisfy any program-specific admission criteria. For instance, the Graduate Management Admission Test (GMAT) is required for applicants for graduate study toward the M.B.A. degree. Several programs require TOEFL scores that are well above the minimum stated previously. The Graduate Record Examination (GRE), including the appropriate Advanced Test, is either required or strongly recommended for all other international graduate applicants. International students planning to apply are directed to consult the appropriate degree program listing for additional criteria and medical requirements.

1 For TOEFL information contact
TOEFL Services
The Educational Testing Service
PO Box 6151
Princeton, NJ 08541-6151 USA
http://www.ets.org/toefl
Request official TOEFL scores be sent to UMKC’s institution code 6872.

For IELTS contact
The International English Language Testing System
http://www.ielts.org
Request official IELTS scores be sent to
UMKC International Student Affairs
Student Success Center, G-04
5000 Holmes Street
Kansas City, MO 64110

Detailed information can be obtained from U.S. embassies, consulates general, bi-national centers and other offices throughout the world.

As noted in the general section on graduate admissions, the graduate degree programs at UMKC have varying schedules for receiving, reviewing and acting on applications for admission. Applicants are directed to the program listings elsewhere in this catalog. This institution reserves the right to consider applicants for the most appropriate term.

Required Academic Records for International Applicants

Applicants must provide complete and official certificates of all degrees, diplomas, mark sheets, grade reports and examination records. If documents are in another language, applicants must also provide a literal English translation.

Deadline for Application for Admission and International Applicant and Student Financial Statement

Deadline for Application for Admission International students must present evidence of sufficient finances to cover their university and personal expenses while they are attending UMKC. A prescribed financial statement must be completed and returned with their other application materials. UMKC will not assume any financial responsibility for international students. Students seeking admission to the graduate level after an undergraduate program must submit a new financial support statement. Student Financial Statement

Additional Information and Forms

International applicants to graduate programs who want more information and forms to apply for admission can go to http://www.umkc.edu/isao or write:

International Student Affairs
Forms to apply for graduate admission can also be downloaded from one of the following Web sites:

- Application forms for admission to master’s degree programs, the doctor of musical arts programs and the Ph.D. in counseling psychology: http://www.umkc.edu/apply.
- Application forms for admission to the Interdisciplinary Ph.D. program: http://sgs.umkc.edu/admissions-procedures/
International Graduate Student Academic Regulations

In addition to the minimum graduate academic regulations and degree requirements common to all graduate students or specific to their particular degree programs, international graduate students at UMKC are subject to the following special requirements and regulations:

Registration with Student Advisor

Admitted international students must clear their attendance and register at the office of the international student advisor prior to their first registration at UMKC. Once admitted, international graduate students must show satisfactory and regular progress toward their graduate degrees.

Health Insurance

International students are required to purchase UMKC mandatory, exclusive health insurance.

English Proficiency Requirements

Proficiency in written and spoken English is essential to international graduate students’ success in their degree programs at UMKC. To ensure that all international graduate students either already have, or have an opportunity to acquire, these necessary skills at a level appropriate to their degree program, the Graduate Officers Committee supports the following guidelines:

• Current minimum TOEFL scores for entering students and graduate teaching assistants should be strictly adhered to by all academic units without exception.

• Prior to their first enrollment in classes at UMKC, newly admitted international graduate students must take the English Evaluation Examination conducted by the UMKC Applied Language Institute (ALI) unless they are exempted from this requirement.

• Based on results of the English Evaluation Examination scores, such students must enroll in and successfully complete the applied language courses indicated as necessary by the student’s academic unit in consultation with the UMKC Applied Language Institute.

• Prospective international graduate students should be aware that required coursework in English as a second language may add extra time to their individual graduate programs of study.

• The only international graduate students exempted from this admissions policy are the following:
  • Native English speakers from English-speaking countries such as Canada, England, the Republic of Ireland, Australia and New Zealand.
  • Non-native English speakers who hold degrees or diplomas from post-secondary institutions in English-speaking countries (such as the United States, Canada, England, the Republic of Ireland, Australia and New Zealand) provided that they have spent a minimum of two years of successful full-time study and English was the medium of instruction.

Policy on Award of Teaching Assistantships

In 1986, the Missouri State Legislature and the University of Missouri Board of Curators adopted a policy which seeks to guarantee effective, high quality instruction for undergraduates. The state has mandated, and the Board of Curators fully supports the ruling, that graduate students who did not receive both their primary and secondary education in a nation or territory in which English is the primary language may not hold a teaching appointment during their first term of enrollment at any public institution of higher education in the state of Missouri. In addition, all such students shall be tested for their ability to communicate orally in English in a classroom setting and, those students who have not previously lived in the United States shall be given a cultural orientation to prepare them for teaching prior to receiving an appointment.

The first two requirements are dictated by the Missouri Revised Statutes, Section 170.012, (http://www.moga.mo.gov/mostatutes/stathtml/17000000121.html) and do not represent a change to the UMKC certification requirements:

• Students in the above category may not hold a GTA appointment during their first term of enrollment at UMKC.

• If students in this category have not previously lived in the United States, they must participate in a cultural orientation to prepare them for their teaching appointment.

UMKC Standards

• Students must have been enrolled at UMKC at least one term prior to receiving a GTA or GI appointment – this is Missouri law.

• Students must have attained a minimum official iBT TOEFL score of 79 – this is an admissions requirement, not a GTA or GI requirement.

• A graduate student from a nation or territory other than the U.S. must have satisfied each of the following standards in order to be certified to accept a GTA or GI appointment. The only exceptions are for students who have earned a degree (undergraduate or graduate) from a U.S. institution. Admission to UMKC does not guarantee a GTA or GI appointment; students must fulfill separate certification requirements in order to be eligible for GTA or GI positions, as follows:
  • Attain a passing TOEFL score
    • 24+ is eligible for Panel Presentation.
- 22-23 needs a departmental petition.
- <22 needs an Applied Language Institute oral interview.
- Attend the fall Cultural Orientation.
- Complete a Panel Presentation (a mock lecture with a student and faculty panel).
  - The TOEFL requirement is a prerequisite to the Panel Presentation.
  - The Panel Presentation will typically be scheduled via email. There will be a panel of graduate faculty members and undergraduate students.
  - The student should prepare 5-7 minutes of a mock lecture on the topic of his/her choice. There will also be a short question-and-answer session following the mock lecture to allow the panel to assess Comprehension.
  - The panel of 6-10 will use a rubric to determine the student’s level of English proficiency. There are 5 points possible in 5 categories, for a total possible 25 points. In order to pass, the student must have an average of 19 points from the panel members. The rubric categories are:
    - Comprehension — can the candidate understand the English spoken by others
    - Fluency/Delivery — does the candidate speak fluently, intelligibly, and without hesitation
    - Vocabulary — does the candidate use terms correctly and use adequate verbiage to represent his/her ideas
    - Pronunciation — does the candidate pronounce words intelligibly and with proper intonation
    - Grammar — does the candidate correctly use grammar and word order

Note: If you want to retake the iBT for the opportunity to receive a higher score, the current iBT cost is $190.

Each student has the responsibility to cover the cost of the exam, but each department may elect to cover these costs at their discretion.

The following table details the roles international Graduate Teaching Assistants can perform based on the internet-based TOEFL speaking section scores and their performances in mock lecture panel presentations.

<table>
<thead>
<tr>
<th>TOEFL speaking score</th>
<th>Panel Presentation</th>
<th>Title</th>
<th>Requirements</th>
</tr>
</thead>
</table>
| 24+                  | Pass               | GTA or GI      | • Attend Cultural Orientation  
  • Assistants may NOT be the sole instructor in a class, but must work under the supervision of a faculty member.  
  • Graduate Instructors may be the sole instructor of a class. |

| 24+                  | Fail               | None - can apply for GRA or GA position | • Attend Cultural Orientation  
  • Cannot have direct contact with the undergraduate students in the courses, but can be a course grader in a GA position.  
  • Another panel presentation can be scheduled in a subsequent semester if a student wants to become an Assistant to the Instructor in a future semester. He/she may also enroll in English 100S-Special Topics from 1 to 6 credits for one-on-one tutorials via the Applied Language Institute (ALI). |


<table>
<thead>
<tr>
<th>Score</th>
<th>Requirement</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>22 or 23</td>
<td>Student may request a departmental petition to the School of Graduate Studies</td>
<td>With an approved petition, a student will be allowed to deliver a mock lecture.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If student passes the panel presentation, he/she is eligible to be a GTA or GI.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If student fails the panel presentation, he/she may enroll in English 100S – Special Topics via ALI(^1) as explained below. The student may schedule another panel presentation in a subsequent semester.</td>
</tr>
<tr>
<td>Less than 22</td>
<td>N/A</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• An international student who does not score at least 22 on the TOEFL speaking section is not eligible for a GTA or GI position without a passing Applied Language Institute oral interview.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Student can also schedule an Oral Interview via the Applied Language Institute. This one-on-one discussion will allow the ALI representative to assess the student’s English proficiency in several key areas, and recommend to SGS what the student’s next steps should be.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Students may be required to enroll in English 100S – Special Topics via ALI(^1) as explained below.</td>
</tr>
</tbody>
</table>

1 The Applied Language Institute will first assess a student, then have him/her enroll in English 100S – Special Topics for one-on-one tutoring. Additional credits may be necessary depending on the student’s degree of English proficiency. The charge for the student to enroll in this course is to be paid by the department or unit. The Applied Language Institute can be reached at (816) 235-1233 or at 5301 Rockhill Road.

For information on dates, or to register for the next Cultural Orientation or a panel presentation, contact the School of Graduate Studies (816) 235-1161.

Exceptions to any of these certification standards must be authorized by the Dean of the School of Graduate Studies. Departments wishing to request an exception for a student must submit a written petition for exception to the graduate dean, including full justification supporting the request, prior to the beginning of the term for which the GTA appointment is sought.

If the student decides to retake the iBT they may do so at the UMKC Testing Center, which is located at 4825 Troost, Suite 206, and is the Kansas City testing site. The Testing Center can be reached at (816) 235-5820. The test may be scheduled online, on the phone, or via paper through ETS.

Upcoming test dates/locations can be found here (http://www.ets.org/toefl/ibt/register/centers_dates?WT.ac=toeflhome_centersdates_121127) via ETS. The UMKC Testing Center is the Kansas City testing location, and there is an Overland Park location and a Lee’s Summit location. Tests are typically offered at least two weekends a month on the Friday or Saturday of the weekend.
University of Missouri (UM) System Visiting Graduate Student Program

Effective Fall 2011, the UM Visiting Graduate Student Program replaces the UM Traveling Scholars Program. The UM Visiting Graduate Student Program offers eligible graduate students a streamlined process for applying and registering for graduate courses on other UM campuses.

To participate in the UM System Visiting Graduate Student Program, a graduate student must be a degree-seeking graduate student and in good-standing on the home campus and host campus.

To apply for this program, a "UM System Visiting Graduate Student Application" should be completed and submitted to the home campus Graduate office for certification, at least two weeks before the beginning of the semester. The graduate student’s home campus Graduate office will review the form; if approved, the home campus Graduate office will transmit the approved form to the host campus Graduate office. The host campus will notify the student when they are eligible to register for courses.

All course fees are paid to the host campus. Graduate students should contact their home campus Financial Aid office for more information on financial aid. International (non-U.S. citizen) students should consult the International student office on their home campus to determine eligibility for this program.

The graduate student’s home campus determines transferability and the maximum number of transfer hours allowed for courses taken as a UM Visiting Graduate student. To officially transfer courses from the host campus to the home campus, students must order an official transcript from the host campus and comply with the home campus’s transfer policies and processes.

For additional questions contact the School of Graduate Studies Office.
Cooperative Doctoral Degrees

Through the UM cooperative doctoral program, graduate faculty members who hold membership in the doctoral faculty of the University of Missouri are eligible to serve as directors of doctoral dissertations on their resident campus, as well as on any of the other three campuses offering a doctoral degree in the doctoral-faculty member’s academic field. Students who want to pursue doctoral degree programs in conjunction with one of the other three campuses of the University of Missouri may do so in accordance with the guidelines listed below. The registrars at University of Missouri-Columbia (MU), Missouri University of Science and Technology S&T, or University of Missouri-St. Louis (UMSL) can provide information on admission procedures for the doctoral programs on their respective campuses.

In the following guidelines, the terms primary campus, graduate school or dean refer to that granting the degree.

- Students must be accepted by the department or area granting the degree and must comply with all the rules of the primary graduate school and discipline/area regulations.
- The dissertation advisor must be a member of the doctoral faculty of the University.
- Advisory/supervisory committees, comprehensive committees and oral committees, as required, will be appointed by the primary graduate dean in consultation with the graduate dean on the participating campus, drawing on faculty on both the cooperating and primary campus:
  a. The makeup of each committee normally will be recommended by the major advisor with the approval of the appropriate director of graduate studies/department chair/divisional dean as per normal campus procedures.
  b. In cases where students are on a cooperating campus:
     i The advisor/supervisory committee chair may or may not be on the same campus. If that person is on the cooperating campus, at least three of the five members of the committee will be from the primary campus.
     ii Students must complete the residency requirement on the primary campus. Exceptions to this ruling must be justified fully with emphasis on quality and cost considerations and must have the approval of the primary graduate dean.
- Selection of the cooperating departments and preparation of a program must be completed at the earliest possible moment and communicated via the primary graduate dean to the participants involved. Both graduate deans will maintain program files relative to students. Respective graduate deans are responsible for the quality of that portion of the cooperative program that is performed on their campus and under the jurisdiction of their faculty.
- Reporting of the degree shall be the responsibility of the primary campus. The cooperating campus shall be given credit in terms of student credit hours and/or dissertation credits for the work completed on that campus and shall provide suitable recognition of dissertation advisors and the committee members.
Graduate Teaching and Research Assistantships

Financial support for graduate students is most frequently provided through the academic unit in which the student is enrolled. This support may be in the form of a Graduate Teaching Assistantship (GTA), a Graduate Research Assistantship (GRA) or a named fellowship. The stipend amounts and number of awards vary from unit to unit. Students interested in consideration for such support should contact the principal graduate advisor or graduate officer in the respective unit for information on application procedures and deadlines.

Each semester, students who hold GTA or GRA appointments also may be recommended by their academic units for chancellor’s GTA/GRA fee remission awards. These awards cover the basic graduate educational fee for six credit hours.

For students who are not residents of Missouri, an additional benefit of having a GTA or GRA appointment is that it qualifies them for a chancellor’s non-resident fee remission. A minimum FTE of 25 percent (a full-time equivalent of 100 percent is 40 hours) is required to be eligible for this award.
Federally Supported Sources of Financial Aid

Graduate students who are U.S. citizens or permanent residents and who are enrolled at least half-time, with financial need demonstrated via the FFS analysis, may be considered for aid through the College Work Study Program. They also may apply for a Perkins Loan (formerly NDSL) or a Guaranteed Student Loan. Additional information on these programs is available from the

UMKC Financial Aid and Scholarships Office
Administrative Center (http://www.umkc.edu/virtualtour/administrative-center.asp), Room 116
5115 Oak Street
Kansas City, MO 64110-2499
(816) 235-1154 (Kansas City Metro)
1-800-775-8652 (Outside of Metro)
finaid@umkc.edu
http://www.umkc.edu/finaid

Staff members are available for information, inquiries and assistance with applications from 8 a.m. to 5 p.m. weekdays.
Institutionally Supported Fellowship and Award Competitions

The School of Graduate Studies administers a number of annual competitions for graduate fellowships. Fellowship stipends vary. Some include remission of portions of the graduate education fees and all include remission of non-resident fees, if applicable. Detailed information is available from the School of Graduate Studies office and website: http://sgs.umkc.edu/fellowships-and-grants/. Applications are normally due in the fall (November, just before Thanksgiving) for fellowships to be awarded for the following academic year. Application deadlines, eligibility and selection criteria, and the application forms are posted on the School of Graduate Studies Web site.
Interdisciplinary Leadership Certificate in Disability Studies

Minimum Requirements for Admission
Possession of a baccalaureate degree from a regionally accredited institution is required. Application for admission to the Leadership Certificate in Disability Studies program must be made to the School of Graduate Studies.

Student Learning Outcomes
Students graduating from this program will:

- Demonstrate appropriate depth and breadth of knowledge in their disciplines.
- Use skills of interdisciplinary scholarship and research to integrate multiple perspectives.
- Work effectively in a collaborative environment.
- Effectively communicate results of their research to diverse audiences.
- Understand and value diverse approaches to problems.
- Use self-reflection for personal and professional improvement.

Program Requirements
The Interdisciplinary Leadership in Disability Studies certificate program is offered through the School of Graduate Studies and the Institute for Human Development. Disability Studies is a relatively new, interdisciplinary field that studies disability from a social and cultural context. The certificate can be completed either in conjunction with a graduate degree program or as a free-standing credential. Students in such diverse fields as sociology, psychology, nursing, pharmacy, law, social work, public administration, urban planning and design and education are well suited for this certificate. Students who receive the certificate will be prepared to influence public policy, professional practice, societal arrangements and cultural values that shape the meaning of disability.

Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>LAW 8815R</td>
<td>Disabilities And The Law</td>
<td>2-3</td>
</tr>
<tr>
<td>SOC-WK 5563</td>
<td>Life Span Issues in Developmental Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>SGS 5501</td>
<td>Disability and Community Support</td>
<td>3</td>
</tr>
</tbody>
</table>

Curriculum Requirements
At least 60 percent of the certificate course work must be at or above the 500 level.

Credit Hours
A minimum of 12 credit hours is required for the certificate.

Requirements for Retention
Students must maintain a 3.0 grade point average while enrolled. The minimum acceptable grade for 400 level courses is B, and for 500 level and above courses, B-.

Time Limit for Completion of Certificate Program
All work toward the Leadership Certificate in Disability Studies must be completed in 4 years.

Contact Information
For additional information contact:

UMKC Institute for Human Development
215 W. Pershing Road, 6th Floor
Kansas City, MO 64108
(816) 235-1770
Graduate Certificate in College Teaching & Career Preparation

Minimum Requirements for Admission

Current UMKC students apply for admission through the UMKC School of Graduate Studies. Other applicants apply for admission through the UMKC Office of Admissions. Applicants to the "Preparing Future Faculty" Graduate Certificate in College Teaching and Career Preparation can be current UMKC graduate students or graduate students who reside in states where UMKC is authorized to deliver online education to residents. All applicants must have the recommendation of their primary graduate advisor or their supervisory committee chairperson and their faculty mentor, who may serve both these types of roles.

Although space in the program is limited and current doctoral students will be given first preference, all graduate students who are recommended by a faculty member in their discipline area may also be considered for admission to the program.

The course requirements include six 1-credit hour seminar courses completed in four consecutive semesters. The remaining 6 credit hours in the program include one teaching theory practicum course and an elective course chosen from a provided selection that is to be determined by the student in consultation with the Director of the Graduate Certificate Program and/or the graduate faculty member who will serve as their faculty mentor.

Student Learning Outcomes

Students graduating from this program will:

• develop a syllabus for an introductory course in the student’s field that includes student learning outcomes and assessment of learning outcomes.
• develop a teaching philosophy statement, curriculum vitae, cover letter for a job application, and presentation of a research agenda in an electronic teaching portfolio.
• demonstrate an understanding of how expectations for teaching, research and service are incorporated into a faculty member’s day-to-day activities.
• explore the differences among different types of institutions for faculty teaching, research, and service expectations in higher education.
• collaborate with peers and mentors to demonstrate expanded knowledge of effective pedagogical techniques and theories of cognition and motivation, including online educational settings, to support diverse learners.

Student learning outcomes for the program are designed to meet the student’s individual needs and research interests, and satisfy discipline-specific requirements.

Program Requirements

In today's competitive academic job market, academic institutions increasingly desire faculty members who not only possess the appropriate academic credentials, but can demonstrate that they are prepared to be excellent teachers and well-rounded colleagues. The 12 credit hour graduate certificate in College Teaching and Career Preparation is intended primarily for doctoral students who are preparing for college-level teaching careers, regardless of the discipline(s) in which they plan to teach; however, students from all graduate degree programs, and who are recommended by a faculty member in their discipline area, will also be considered for admission. The structure of this graduate certificate program balances the emphases on both career exploration and teaching excellence.

The certificate complements the discipline knowledge of graduate programs by (1) focusing on strategies for successful teaching, including incorporating technology into the college classroom and in online learning environments, and (2) familiarizing students with the demands of college teaching and the nature of the academic environment in a variety of institutions of higher education. Courses that satisfy program requirements are taken for graduate credit; and, upon completion, the certificate is officially noted on the student’s transcript.

Curriculum Requirements

The “Preparing Future Faculty” Graduate Certificate in College Teaching and Career Preparation requires a minimum of 12 credit hours. A six-course series of Preparing Future Faculty (PFF) seminar courses is the core of this 12 credit hour graduate certificate curriculum. The one-credit hour seminar courses are graded on a credit/no credit basis and are offered year-round for four semesters, with a new cohort beginning each Fall semester. Students in the PFF Seminar courses not only refine their teaching skills, but also explore the opportunities at, and differences among, a variety of institutions of higher education — public, private, 2-year and 4-year. For the remaining six credits of the certificate program, students complete a 3-credit hour theoretical teaching practicum course, EDUC-C&I 5640, plus one of the following 3-credit hour courses as approved by the graduate certificate program director: EDUC-R&P 5639 OR EDUC-UL 5556.

All courses are taught completely on-line, with 3 on-campus monthly PFF lecture sessions in the Fall and Spring semesters that can be attended face-to-face or via distance education technology.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Required Core Courses</td>
<td>6</td>
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Seminars
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>SGS 5651A</td>
<td>Preparing Future Faculty I</td>
<td>2</td>
</tr>
<tr>
<td>&amp; SGS 5651B</td>
<td>and Preparing Future Faculty II</td>
<td></td>
</tr>
<tr>
<td>SGS 5652A</td>
<td>Preparing Future Faculty III</td>
<td>2</td>
</tr>
<tr>
<td>&amp; SGS 5652B</td>
<td>and Preparing Future Faculty IV</td>
<td></td>
</tr>
<tr>
<td>SGS 5653A</td>
<td>Preparing Future Faculty V</td>
<td>2</td>
</tr>
<tr>
<td>&amp; SGS 5653B</td>
<td>and Preparing Future Faculty VI</td>
<td></td>
</tr>
<tr>
<td><strong>One additional course</strong></td>
<td></td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>EDUC-R&amp;P 5639</td>
<td>Educational Psychology: Focus on Teaching in Higher Education</td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>EDUC-UL 5556</td>
<td>The College Student</td>
<td><strong>3</strong></td>
</tr>
<tr>
<td><strong>Teaching Practicum</strong></td>
<td></td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>EDUC-C&amp;I 5640</td>
<td>Curriculum and Teaching for the College Classroom</td>
<td><strong>3</strong></td>
</tr>
<tr>
<td><strong>Total Credit Hours</strong></td>
<td></td>
<td><strong>12</strong></td>
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</table>

**Requirements for Retention**
Students must maintain a cumulative 3.0 graduate GPA while enrolled and receive no grade below a B- in courses applied to the certificate program.

**Time Limit for Completion of Certificate Program**
3 years maximum.
Interdisciplinary Ph.D. Program
Mission, Philosophy and History

Research is rapidly expanding as global problems and issues require scholars with an interdisciplinary approach to problem solving. It will no longer be enough to know one area, one discipline, one field. Inquiry and discovery are crossing disciplines. For this reason, in 1990, UMKC developed and introduced an interdisciplinary doctoral degree program that spans traditional boundaries across disciplines while helping students develop knowledge and skills for independent research on the fundamental questions of the present and the future.

The Interdisciplinary Ph.D. program is designed to provide self-directed students with academic training at the highest level of scholarship, while allowing their participation as colleagues in research of fundamental importance. Students in the program develop the ability to integrate principles and theories from at least two disciplines (Primary and Co-Discipline), using approaches, methods, ethical principles, and tools to pursue a research line of inquiry.

There are currently 23 Primary disciplines and 26 Co-Disciplines accepting applications for the Interdisciplinary Ph.D. program. Enrollment in the program includes more than 360 students. More than 800 students have graduated during the program’s existence.

The following core values and attributes underscore UMKC’s Interdisciplinary Ph.D. program:

Learning is enhanced by a search for knowledge across discipline boundaries.
Therefore, the program:

• Is student-centered.
• Enables students to acquire the skills of interdisciplinary scholarship and research.
• Broadens students’ exposure to multiple academic fields.

Interdisciplinary research draws on discipline-based knowledge, generating integrated solutions to problems that cross discipline boundaries.
Therefore, the program:

• Is problem-oriented.
• Integrates the attributes of a broad-based interdisciplinary approach with the grounding of a traditional academic focus.
• Provides a solid grounding in theories, concepts and methodologies of two or more disciplines.

Learning thrives in an environment open to a diversity of ideas, cultural backgrounds, discipline perspectives and approaches to problems.
Therefore, the program:

• Instills an appreciation of different disciplines.
• Integrates the disciplinary perspectives to give students the methodological and theoretical tools to thrive in a wide range of scholarly and professional environments.

Society derives great benefit from collaborative efforts that transcend discipline boundaries to solve problems. Therefore, the program:

• Prepares individuals to be multi-functional; to combine disparate skills to solve problems.
• Provides opportunities for individuals to gain skills in working within a collaborative environment.

In the course of pursuing a Ph.D., there are many skills students obtain that are transferable to other occupations. Acquisition of transferable skills allows graduates to compete for positions in a variety of work settings. Transferable skills such as analytical thinking and problem solving, verbal communication, project management, and technical writing and design, allow students to be nimble throughout their careers, changing positions and career directions.
Program Description

Applicants must meet both the general and the discipline-specific criteria for admission and be recommended for admission by the doctoral faculty review groups in at least two disciplines. Upon approval by the graduate dean, students are admitted to the School of Graduate Studies. The School of Graduate Studies monitors student progress in the program, enforces program regulations and facilitates communication among the disciplines. A discipline coordinator, usually a doctoral faculty member, coordinates admission reviews and monitoring progress of students within each discipline.

Doctoral students in this program take coursework and conduct their research in at least two disciplines. The content of their program of study is not predetermined, but formulated by the student, in consultation with UMKC doctoral faculty, to meet their individual needs and research interests and to satisfy discipline-specific requirements.

Program Goals

Students in the interdisciplinary Ph.D. Program will acquire:

1. grounding in the primary and co-disciplines;
2. the ability to integrate the principles and theories of each of the disciplines;
3. the ability to effectively communicate findings and approaches to solving interdisciplinary research problems;
4. research skills in each discipline such as approaches, methods, ethical principles, and tools to pursue a research line of inquiry;
5. the ability to form effective teams with diverse scholars across disciplines to solve novel research questions.

Disciplines participating for the Fall 2016 admissions cycle:

Administrative and Information Sciences
- Entrepreneurship and Innovation (Henry W. Bloch School of Management)
- Public Affairs and Administration (Henry W. Bloch School of Management)
- Educational Leadership, Policy and Foundations (School of Education)

Biological and Chemical Sciences
- Biomedical and Health Informatics (School of Medicine)
- Cell Biology and Biophysics (School of Biological Sciences)
- Molecular Biology and Biochemistry (School of Biological Sciences)
- Chemistry (College of Arts and Sciences)
- Oral and Craniofacial Sciences (School of Dentistry)
- Pharmaceutical Sciences (School of Pharmacy)
- Pharmacology (School of Pharmacy)

Humanities and Arts
- Art History (College of Arts and Sciences)
- English (College of Arts and Sciences)
- Humanities Consortium (College of Arts and Sciences) (only available as a co-discipline option)
- Music Education (Conservatory of Music and Dance)

Physical, Mathematical, Engineering and Computer Sciences
- Engineering (School of Computing and Engineering)
- Geosciences (College of Arts and Sciences)
- Mathematics (College of Arts and Sciences)
- Physics (College of Arts and Sciences)
- Telecommunication and Computer Networking (School of Computing and Engineering)
- Computer Science (School of Computing and Engineering)
- Electrical and Computer Engineering (School of Computing and Engineering)

Social and Behavioral Sciences
- Economics (College of Arts and Sciences)
- Curriculum and Instruction (School of Education)
• History (College of Arts and Sciences)
• Political Science (p. 1300) (College of Arts and Sciences) *(only available as a co-discipline option)*
• Social Sciences Consortium: Economics, Political Science and Sociology (p. 1304) *(only available as a co-discipline option)*

The above list of participating disciplines constitutes a dynamic list that can change annually as members are added to or dropped from the doctoral faculty, or as the resources in various academic units change. Applicants should contact the School of Graduate Studies Office for information about modifications to the above list that might have occurred since this catalog was prepared.

Admission to UMKC's School of Graduate Studies' Interdisciplinary Ph.D. program is highly competitive. Enrollment in the program is limited, and admission is granted only to students who have a mature commitment to advanced study and scholarship. Admission is also subject to availability of adequate faculty and other resources within an applicant's chosen disciplines.

After being admitted to the Interdisciplinary Ph.D. program, and no later than the end of the semester in which the student completes the comprehensive examinations, each student must satisfy the interdisciplinary doctoral residency requirement by completing at least 18 credits, exclusive of dissertation research (5696-5699), in no more than 24 months. Students may be admitted either provisionally or fully to the program; however, within 24 months of being fully admitted, each student must develop a Plan of Study proposal in consultation with the doctoral faculty members who have agreed to serve on the student's supervisory committee. Although no fixed set of courses is required, students are expected to prepare a rigorous plan of study that includes at least 30 didactic course hours beyond the baccalaureate degree, exclusive of thesis and dissertation research credits. More credit hours may be required by either the student's supervisory committee, the student's disciplines, the Interdisciplinary Ph.D. Executive Committee, or the Dean of the School of Graduate Studies. The number of credits included on the plan of study shall be predicated upon the extent of the student's previous academic preparation, the discipline-specific requirements of the student's disciplines, and the nature of the student's field of study.

Students must take and pass a comprehensive examination containing components of each discipline to which they have been admitted to determine if they are ready to advance to candidacy and the final phases of their Ph.D. program. Typically the comprehensive examination will be conducted as the student nears completion of the didactic coursework listed on the plan of study. The final phases of the program shall comprise:

• Completion of significant research.
• A written dissertation acceptable to the doctoral faculty.
• Successful oral defense of the research work and dissertation.
Program Administration

Quality control of the Interdisciplinary Ph.D. program rests with those faculty members certified by the University of Missouri to chair and serve on doctoral supervisory committees. These doctoral faculty members are responsible for the design and implementation of a student’s doctoral plan of study and for the assessment of the qualifications of a student they recommend to the Curators for the Ph.D. degree. To help students formulate an appropriate plan of study, the doctoral faculty are divided into five broad groups corresponding to research interests and expertise. The groupings do not preclude an interdisciplinary plan of study and research involving more than one of these five groups, but are intended only to provide a structure that will assist students and doctoral faculty in developing a plan of study for each Interdisciplinary Ph.D. student. A 15-member executive committee of the doctoral faculty, chaired by the Dean of the School of Graduate Studies, formulates the policies that govern Interdisciplinary Ph.D. studies. Ten members of the committee are elected by the doctoral faculty. The Chancellor, in view of the election results and in consultation with the Dean of the School of Graduate Studies, appoints five members. There are three members from each of the five broad research areas. This process ensures representation from across the primary areas of responsibility assigned to the campus by the Curators. The Interdisciplinary Ph.D. Executive Committee is also charged with formulating, monitoring and reviewing goals of the Interdisciplinary Ph.D. program and recommending changes in goals, procedures and policies to the faculty. Any proposed major change must be ratified by the doctoral faculty of the campus.
Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission

When preparing an application for admission, applicants must designate which one of the disciplines is to become the applicant's primary unit for initial advising, record-keeping and receiving/sending mail in the event that admission is granted. A student's research advisor must be affiliated with the student's primary unit discipline.

Once the primary discipline has been selected by the applicant, there are two application pathways:

1. Primary discipline areas that require the immediate selection of a co-discipline area during the application process: After a primary discipline area is selected, the applicant will be prompted to select at least one co-discipline area. Recommendation for provisional or full admission by the doctoral faculty review groups in these primary discipline areas requires at least two participating disciplines, a primary and co-discipline area, to approve the applicant's admission.

2. Primary discipline areas that do not require the immediate selection of a co-discipline area during the initial application: Primary discipline faculty will work with the admitted primary discipline student to select a co-discipline during the student's first semester in the program.

Application for admission to Interdisciplinary Ph.D. study is made to the Dean of the School of Graduate Studies through the UMKC Admissions Office or, in the case of international applicants, through the UMKC International Student Affairs Office (ISAO). For additional program information, applicants should contact the School of Graduate Studies. E-mail requests may be sent to umkcgs@umkc.edu (graduate@umkc.edu); the phone number is (816) 235-1301. Application information and an online application system are also available from the School of Graduate Studies Website: http://sgs.umkc.edu/interdisciplinary-ph-d-studies-at-umkc/

Mailing Address
University of Missouri-Kansas City
School of Graduate Studies
AC 300F
5115 Oak Street
Kansas City, MO 64112-2499

The general criteria for admission for Interdisciplinary Ph.D. program study are as follows:

• Graduate Record Examination (GRE) scores will be evaluated by the disciplines [if an applicant's GRE scores are more than five years old, and other predictors of ability to do doctoral-level work in the applicant's file are marginal, the applicant may be asked to retake the GRE general test before an admission decision is made].

• A grade-point average of at least 2.75 (on a 4.0 scale) covering all college work taken prior to the bachelor's degree, or a grade-point average of at least 3.0 covering all post-baccalaureate work completed to date.

• Recommendation for provisional or full admission by the doctoral faculty review group in participating disciplines for a primary discipline and at least one co-discipline area.

Graduates of schools outside the United States may be considered for admission to this doctoral program at UMKC, subject to the following criteria.

1. They must have completed a course of study at least the equivalent of a U.S. baccalaureate degree.

2. They must have above-average grades in previous college study.

3. They are required to establish proof of adequate English proficiency as part of the UMKC admissions process. Applicants from countries in which English might be one of the official languages, but is not necessarily the first language of the majority of the population, must attain a minimum composite score of either 79 on the iBT Test of English as a Foreign Language (TOEFL), or a score of 6.0 on the IELTS to be considered for admission. The results of the examination must be received in the UMKC International Student Affairs Office before the application deadline.

Exceptions to this policy:

• Non-native speakers who hold degrees or diplomas from post-secondary institutions in English-speaking countries (such as the United States, Antigua, Australia, Bahamas, Barbuda, Belize, Canada, Dominica, Fiji, Gambia, Ghana, Guyana, Ireland, Jamaica, Liberia, Mauritius, New Zealand, Sierra Leone, Solomon Islands, South Africa, St. Christopher (St. Kitts), St. Lucia, St. Vincent, Tobago, Trinidad, Uganda, United Kingdom [England, Scotland, Wales and Northern Ireland], Zambia and Zimbabwe), provided they have spent a minimum of two years in successful full-time study there and English was the medium of instruction.

• International transfer students from other institutions in the United States or Canada who have spent a minimum of two years in successful full-time study.

4. In addition to 1 through 3 above, international graduate students must satisfy any program-specific admission criteria. For instance, the Graduate Management Admission Test (GMAT) is required for applicants for graduate study toward the M.B.A. degree. Several programs require TOEFL scores that are well above the minimum stated previously. The Graduate Record Examination (GRE), including the appropriate Advanced Test, is either required or strongly recommended for all other international graduate applicants. International students planning to apply are directed to consult the appropriate degree program listing for additional criteria and medical requirements. There are detailed instructions for the application
International applicants must submit the following additional forms:


Worldwide, the U.S. embassies, consulates general, bi-national centers and other offices throughout the world.

Participating disciplines may establish whatever additional criteria or higher standards they consider to be appropriate and such discipline-specific criteria will take precedence over the general criteria. Applicants should note that several discipline areas have set more rigorous admission requirements, and a number of discipline areas have established qualifying requirements for students who intend to include that discipline in their doctoral programs. These discipline-specific requirements range from specific prerequisite coursework, to successful completion of a qualifying examination, to having the equivalent of a master’s degree in the area, to having higher scores on specific segments of the GRE and are listed in greater detail later in this section.

Students may apply for admission with or without meeting the general criteria of the School of Graduate Studies and any additional criteria established by the discipline areas. Meeting these criteria does not automatically make any student eligible for admission. In exceptional circumstances, students who do not meet the general criteria of the School of Graduate Studies and the disciplines may be admitted.

The School of Graduate Studies’ minimum requirements for admission to the Interdisciplinary Ph.D. program are determined by the doctoral faculty in the academic units in which the student will be doing work, and by the UMKC doctoral faculty through representation on the Interdisciplinary Ph.D. Executive Committee. Admission to the program is subject to availability of adequate faculty and other resources within an applicant’s chosen disciplines and the approvals of the Dean of the School of Graduate Studies and the Interdisciplinary Ph.D. Executive Committee.

**Application Procedure**

The deadlines for applications varies by discipline.

Although new students in most disciplines may be accepted in all terms, some disciplines will only consider applications for the fall term.

Applicants are responsible for:

1. Submitting a completed Application for Admission or Readmission to Interdisciplinary Ph.D. Studies form to the UMKC Admissions Office, or in the case of international applicants, to the UMKC International Student Affairs Office (ISAO). All applications must be accompanied by the appropriate non-refundable application fee ($35* for domestic applicants or $75 for international applicants). *The application fee will be $45 beginning July 1, 2017.

2. Uploading the following supplementary materials (shown below) into the online application site.
   - A narrative statement / Statement of intent outlining professional background and educational plans.
   - Three letters of recommendation. (The applicant provides referee contact information in the online application site. The referee receives an email invitation to upload the reference letter into the site.)
   - Any supplemental material requested by the discipline(s). Note that several disciplines require professional writing samples, tentative outlines of plans of study, or other supplemental materials to complete the application packet. Applicants should consult the discipline-specific information to determine whether supplemental materials are required by the disciplines they select.
   - Resume / Vita

3. Having the following supplementary documentation sent to the UMKC Admissions Office or in the case of international applicants, to the UMKC International Student Affairs Office (ISAO):
   - Official test scores (GRE, TOEFL, etc.). The applicant must request the testing agency to send official GRE test scores to the School of Graduate Studies. According to the Educational Testing Service:
     - GRE test scores are part of your reportable history for five years after the testing year in which you tested (July 1–June 30). As of July 1, 2015, GRE scores earned July 1, 2010, to the present will be available in your reportable GRE score history.
     - Scores from individuals who tested between July 1, 2010 and July 31, 2011, were purged from the GRE database in mid-July 2016.
   - Official transcripts from all colleges attended. All applicants must submit an official transcript from the school where their bachelor’s degrees were obtained. This transcript must show all courses, grades and credits attempted or completed at the undergraduate level. Unless the transcript of the degree-granting institution shows the complete record of undergraduate work taken at all other schools, an official transcript from each of the other institutions must be supplied. In addition, applicants must submit an official transcript from each school where other coursework has been taken or degrees have been obtained after the bachelor’s degree.
   - Waiver requests for TOEFL/IELTS/GRE: Applicants must talk to the Interdisciplinary Ph.D. Discipline Coordinators (http://sgs.umkc.edu/for-faculty-and-staff/interdisciplinary-ph-d-coordinators) in their areas of interest BEFORE requesting a waiver for the official test score requirements. After talking with the Coordinators, a waiver request can be submitted in writing through the online application system as an additional document.
2. Affidavit of Support – if a friend of family member is providing Statement of Finances
3. If transferring from another U.S. institution:
   a. Transfer-In Form
   b. Copy of passport
   c. Copy of visa
   d. Current I-20 or DS-2019
   e. I-94 Form

All credentials submitted in support of the application for admission to the Interdisciplinary Ph.D. program become UMKC property. They will not be returned to the applicants and UMKC cannot copy them for release to a third party.

The deadlines for applications to the Interdisciplinary Ph.D. program vary by discipline. All application materials must be received by the earliest discipline deadline. (For example, if one discipline’s deadline is February 1st and the other March 15th, then application materials must be received by the February 1st deadline.) Applicants who have not completed the Supplementary Interdisciplinary Ph.D. Application (iSAP) will receive automatic emails until all required materials are uploaded into the iSAP system and the application is marked ‘Complete’ by the student. If required test scores, transcripts, recommendation forms or supplementary documentation appropriate to the applicant’s discipline selections are missing at the application deadline for the disciplines, the application will not be reviewed by the faculty review groups in the specified disciplines for admission in the term requested.

An applicant can expect the review and recommendation process to take approximately 4 to 6 weeks after the latest discipline deadline. For example, if one discipline deadline is February 1st and the other March 15th, an admission decision should be received, approximately, by March 31st to April 15th. The faculty review groups in some disciplines review all applications as a group, while in other disciplines, applications are reviewed and acted upon on a revolving basis, as received. The review and recommendation process within the disciplines varies in length depending upon the disciplines’ review policies.

For questions about the contents of their admission files, or to determine whether their official transcripts or test scores have been received, applicants may contact the Admissions Office (816) 235-1111 or admit@umkc.edu. International applicants may check on the status of their applications by contacting the ISAO at http://www.umkc.edu/isao/ (816) 235-1113 or isao@umkc.edu. Applicants may also contact the School of Graduate Studies, (816) 235-1161 or umkcsgs@umkc.edu for information on the status of their applications.
Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements

The following requirements pertain specifically to students pursuing Interdisciplinary Ph.D. programs. However, Interdisciplinary Ph.D. students are subject to, and also should refer to, those regulations common to all graduate students and the dissertation requirements common to all doctoral students included in the General Graduate Academic Regulations and Information section of this catalog. Students should also consult the specific requirements for the disciplines to which they have been admitted. Where discipline requirements are more stringent than the general requirements, the discipline requirements take precedence.

Change of Disciplines by Admitted Students (p. 1232)
Interim Advisor (p. 1232)
Qualifying Requirements for Full Admission (p. 1232)
Research Advisor and Supervisory Committee (p. 1232)
Interdisciplinary Ph.D. Plan of Study (p. 1233)
Interdisciplinary Ph.D. Residency Requirement (p. 1234)
Transfer Credit (p. 1234)
Comprehensive Examination (p. 1234)
Program Time Constraints (p. 1235)
Dissertation Research Proposal Development and Approval (p. 1235)
Dissertation and Completion of Degree (p. 1235)
Interdisciplinary Ph.D. Student Appeal Process (p. 1236)

Change of Discipline by Admitted Students

Once a student is admitted to Interdisciplinary Ph.D. study, any change of disciplines requires a full review process by the disciplines, similar to the initial admission review. Forms to initiate this review may be obtained from the School of Graduate Studies or downloaded from their Web site: http://sgs.umkc.edu/forms/

Interim Advisor

Once an Interdisciplinary Ph.D. student is admitted to the School of Graduate Studies, the Dean, upon recommendation from the student's disciplines, identifies a doctoral-faculty member from each discipline to serve as the student's interim advisor in that discipline. Students who have had minimal prior graduate study will be encouraged to explore research opportunities before choosing fields of endeavor.

As the student progresses and develops focused research interests, the interim advisors are expected to assist in identifying potential research advisors among doctoral-faculty members in appropriate research areas with whom the student can discuss research plans. The interim advisors also provide academic guidance until the student selects a research advisor, has satisfied all qualifying requirements and is classified as fully admitted. The interim advisor in the student's primary-unit discipline reports on the student's progress to the dean of the School of Graduate Studies. If another faculty member has not been identified as the research advisor by the time the student is fully admitted and ready to formulate the plan of study, the interim advisor in the primary unit discipline will automatically become the student's research advisor.

Qualifying Requirements for Full Admission

Admission to the Interdisciplinary Ph.D. program is granted on a provisional or fully admitted basis as determined by the doctoral faculty review group of the student's chosen discipline(s). Upon their acceptance as provisional Ph.D. students, applicants are notified of the specific qualifying requirements they must satisfy before they can be classified as fully admitted Ph.D. students. Provisional admission does not guarantee advancement to full admission, and full admission does not guarantee advancement to Ph.D. candidacy.

At the end of each academic year, the interim advisor reports the provisional Ph.D. student's progress toward satisfying the qualifying requirements to the Dean of the School of Graduate Studies. When all qualifying requirements have been completed, the interim advisor requests that the student's classification be changed to fully admitted.

Research Advisor and Supervisory Committee

The chair and a majority of the members of a student's supervisory committee must be from disciplines certified as eligible to participate in the Ph.D. program. The student's committee chair must be a regular doctoral faculty member from the student's primary discipline, and has the final authority over the student's program. A graduate or adjunct graduate faculty member may be the dissertation director if approved by the primary discipline.

The advisor assists the student in identifying other members of the doctoral faculty to form a supervisory committee appropriate to the student's research goals. A request for appointment of supervisory committee is included as part of the written proposal for the student's Ph.D. plan of study.

The supervisory committee shall consist of at least five members composed of one doctoral faculty from each of the primary and co-disciplines with a maximum of three from any one discipline. Up to two of the remaining members of each committee can hold either graduate or adjunct graduate faculty status. Final approval of the composition of each supervisory committee shall be obtained in writing by the advisor (or committee chair) from
The School of Graduate Studies will accept Interdisciplinary Ph.D. plan of study proposals for review and final approval only if:

- Signature that the courses and all other resources are currently available at UMKC and in the respective units for the student to initiate the plan of study.
- The student's choice of disciplines, as determined by the dean(s) or program director(s), department chair(s), division head(s), etc., must then review and certify by signature that the courses and all other resources are currently available at UMKC and in the respective units for the student to initiate the plan of study. The interim faculty advisors or supervisory committee chair and co-discipline advisor will review the student's report and meet with the student to discuss the student's progress and plans for the coming year. They will provide the student and the School of Graduate Studies with a copy of the completed and signed evaluation form. Failure to meet this requirement may result in a hold being placed on the student's enrollment.

**Annual Evaluation of Progress**

Interdisciplinary Ph.D. students, using forms provided by the School of Graduate Studies, must submit a summary of their accomplishments over the previous year and a projection of the progress they intend to make during the next academic year. This annual evaluation form is distributed to students in the spring and is due in the fall. Forms are submitted to their interim advisors or, if their supervisory committees have been formed, to the chairs and co-discipline advisor of their supervisory committee. The interim faculty advisors or supervisory committee chair and co-discipline advisor will review the student's report and meet with the student to discuss the student's progress and plans for the coming year. They will provide the student and the School of Graduate Studies with a copy of the completed and signed evaluation form. Failure to meet this requirement may result in a hold being placed on the student's enrollment.

**Plan of Study**

Within 24 months of admission, a student chooses a research advisor and forms a supervisory committee. In consultation with the research advisor and other members of the proposed supervisory committee, the student prepares a proposed Ph.D. plan of study, obtains all required signatures and submits the proposed plan to the School of Graduate Studies for review and final approval. This submission must occur within 24 months of the semester admitted to the program. Failure to meet this requirement may result in a hold being placed on the student's enrollment.

In addition to any coursework completed prior to admission that is being credited toward discipline-specific requirements, the written Interdisciplinary Ph.D. plan of study includes courses and other activities at UMKC that should normally be completed approximately two years from the time the Ph.D. student is fully admitted, a preliminary research statement about overall plans for dissertation study and research, and a list of the proposed members of the supervisory committee.

**The Interdisciplinary Ph.D. Plan of Study Guidelines**

- The plan of study must include coursework from all the student's disciplines and must satisfy all of the applicable discipline-specific core requirements.
- The plan of study must include at least 30 didactic hours beyond the baccalaureate degree, exclusive of thesis or dissertation research hours, in courses taken at UMKC or courses taken at another institution and approved for transfer by the student's supervisory committee.
- Didactic coursework on the plan of study will include a minimum of nine credit hours in a co-discipline area.
- No more than 60 percent of the total coursework taken at UMKC and listed on the plan of study, exclusive of thesis or dissertation research hours, will be in any one discipline.
- All plans of study must include a minimum of 12 hours of dissertation research (5696-5699) credit.
- At least two-thirds of the total courses included on the plan of study must be numbered 5500 or above if taken at UMKC, or, if taken from an institution with a course-numbering system that differs from UMKC's, they must be courses intended primarily for graduate students.
- UMKC courses at the 100 and 200 levels, and courses with equivalent lower-division numbers taken at another institution, are not available for graduate credit and may not be applied toward the hours required for the degree nor included in the discipline percentages.
- At least 75 percent of the coursework on the plan, exclusive of dissertation credits, must be in disciplines certified as eligible to participate in the Interdisciplinary Ph.D. program.
- Students' needs will be examined on a case-by-case basis by their supervisory committees, and appropriate language or related research skill requirements will be incorporated into each student's plan of study.
- The plan of study will include a brief description of the course focus and the name of the supervising professor for any independent study courses listed.
- The plan of study will specify which courses are being used to satisfy the residency requirement.
- The plan of study will outline the comprehensive examination expectations.
- The plan of study will include a preliminary research plan for the dissertation research, including key bibliographic references.

If modifications to discipline-specific requirements are made after the student is admitted, the student has the option of proceeding under either the requirements in place at the time the student entered the Ph.D. program or the current requirements.

**Plan of Study Approval Process**

Once the supervisory committee members and student have agreed on and signed the plan of study, appropriate academic officers corresponding to the student's choice of disciplines [dean(s) or program director(s), department chair(s), division head(s), etc.], must then review and certify by signature that the courses and all other resources are currently available at UMKC and in the respective units for the student to initiate the plan of study. The student then submits the certified plan of study to the Dean of the School of Graduate Studies for review and approval.

The School of Graduate Studies will accept Interdisciplinary Ph.D. plan of study proposals for review and final approval only if:

- The Ph.D. coursework falls within the guidelines outlined above.
• The student will enroll at UMKC for dissertation credit under the supervision of a UMKC doctoral faculty member.
• The plan includes written assurance from the appropriate academic officers that:
  a. adequate faculty, laboratories, library support and all other necessary resources are presently available at UMKC to support the proposed Ph.D. plan of study, and
  b. the courses included in the plan are either presently available at UMKC or can be taken by the student as a visiting student in a time period less than that required to satisfy the residency requirements on the other campus.

The School of Graduate Studies will either approve of the plan as presented or will return the plan to the student with recommendations for modification. Once the proposed plan of study and supervisory committee are approved by the Interdisciplinary Ph.D. Program Director, a confirmation letter will be sent to inform the student and committee of the approval. The approved plan will also be filed with the Registrar. Any further modifications of the plan of study must be made in consultation with the student’s supervisory committee and approved by the School of Graduate Studies.

**Residency Requirement**

Interdisciplinary Ph.D. students must satisfy the doctoral residency requirement by satisfactory completion of at least 18 credits in no more than 24 consecutive months. When satisfying the residency requirement, all Interdisciplinary Ph.D. students are subject to the following restrictions:

1. The doctoral residency requirement must be satisfied no later than the end of the semester in which the student completes his or her comprehensive examinations.
2. Students must achieve a cumulative graduate grade-point average of at least 3.0 in all courses counted toward satisfying the residency requirement.

**Transfer Credit**

Ph.D. plans of study are tailored to the needs of individual students based on their prior academic work as evidenced by transcripts and other credentials. An approved plan of study may recognize class work from other institutions as determined by the student's supervising committee, either as qualifying courses or as relevant to a program of study.

Graduate credit earned before entering a UMKC doctoral program may be applied to the doctoral degree if it is of acceptable quality and appropriate to the student's program of study as determined by the student's academic unit and supervisory committee. The total amount of graduate credit earned from all other academic institutions before admission to a UMKC doctoral program and applied to the doctoral degree cannot exceed half the number of credit hours, exclusive of dissertation research credits, required for the degree. For graduate coursework completed at UMKC prior to admission to a doctoral program, any number of credit hours required for the doctoral degree, exclusive of dissertation research, can be satisfied using previous UMKC graduate credit if approved by the student's academic unit and supervisory committee. All graduate coursework, completed prior to admission and not used to earn the master's degree or educational-specialist degree, must be no more than seven years old at the time the doctoral program of study is approved.

After admission to the doctoral program, if a student wishes to take graduate coursework at another institution and apply it to their doctoral program, the student must receive written approval from the doctoral program’s graduate officer and from the student’s supervisory committee chair, as appropriate, before the coursework is taken. Such coursework is not considered as transfer credit. Upon completion of the coursework, the student must have the official transcript forwarded to the UMKC registrar.

**Comprehensive Examination**

To advance to degree candidacy, Interdisciplinary Ph.D. students are required to pass a comprehensive examination that integrates components of each discipline to which they have been admitted. Either the written or oral or both component(s) of the comprehensive examination must include an evaluation of the student’s ability to integrate content, theory and/or methods from each specified discipline. The doctoral comprehensive examinations must be completed at least seven months before the date of graduation.

The following requirements must have been met before students can take the comprehensive examination(s):

1. Successful completion of all qualifying requirements and full admission to the School of Graduate Studies.
2. Appointment of a research advisor and supervisory committee.
3. Filing and approval of the Ph.D. plan of study and completion of essentially all coursework or other study required for the degree.

The student must be enrolled when taking the comprehensive examination. Comprehensive examinations are not administered when UMKC is not officially in session. The comprehensive examination may be written, oral or both. A student, through his or her advisor, applies to the Dean of the School of Graduate Studies for an examining committee. This committee consists of members of the student’s supervisory committee and others approved by the Dean of the School of Graduate Studies. The examination is arranged and conducted by the examining committee. Upon completion of the examination, the student’s research advisor sends a report of the results, carrying the signatures of all members of the examining committee, to the Dean of the School of Graduate Studies, who then informs the student and the registrar. A student is considered to have passed the comprehensive examination if no more than 20 percent of the committee members vote for failure of the student. If failure is reported, the examining committee will either recommend termination as a Ph.D. student or suggest additional work or other remedial measures. Furthermore, a student who
Program Time Constraints

The doctoral student must take and pass the doctoral comprehensive examination and advance to candidacy within five years from the beginning of doctoral coursework (within four years if entering with a master’s degree in the same or closely related field). After the establishment of degree candidacy, a maximum of five years will be allowed for completion of degree requirements. Failure to complete the work within the periods specified will necessitate re-evaluation of the entire program and may result in a notice of termination. In compelling circumstances and on the written recommendation of a majority of the student’s supervisory committee members, the Dean of the School of Graduate Studies may grant a one-year extension. Some academic units may impose more stringent time requirements.

Dissertation Research Proposal Development and Approval

The student’s supervisory committee must approve the research activities associated with a dissertation. These activities must be performed under the direct and continuing supervision of the supervisory committee chair. If the proposed research involves the use of human subjects, animals or radioactive materials, the student and the research advisor must obtain prior written approval of the proposed research by the appropriate Institutional Review Board, the Animal Care and Use Committee or the Radiation Safety Committee.

For the approval process, the Ph.D. candidate must submit a brief dissertation research proposal. The dissertation proposal shall include the following:

- An abstract.
- A statement regarding the general purpose of the research.
- Background information, including a review of the relevant literature, the rationale for the research and a concise statement of the hypotheses to be investigated and/or the research questions to be answered.
- Methods.
- Appropriate protocol or application if human subjects, animals or radioactive materials are to be used in the research.

This proposal must be approved in writing by all members of the student’s supervisory committee and filed with the School of Graduate Studies. It is in the best interest of the Ph.D. student to complete the approval process of the dissertation research proposal before significant progress is made on the completion of the dissertation. Any important changes in the research outlined in the proposal must be approved by the supervisory committee.

Dissertation and Completion of Degree

Doctoral Dissertation Requirement

All UMKC Ph.D. degrees require a dissertation as the final component of the program. The doctoral faculty view the dissertation as one of the most important aspects of the student’s experience because:

- It is a work of original research or scholarship that makes a contribution to existing knowledge.
- It is an educational experience that demonstrates the candidate’s mastery of research methods and tools of the specialized fields.
- It demonstrates the candidate’s ability to address a major intellectual problem.

For regulations pertaining to formatting the dissertation and the process for approval, the reader is directed to Thesis and Dissertation Preparation and Approval Process, included under Graduate Academic Regulations in this catalog section.

Final Dissertation Examination

Final examinations in defense of the dissertation are open to all members of the doctoral faculty, who may attend as interested observers. The format and procedures of the defense are determined by the supervisory committee and its chair. The date, time and location must be announced and published at least two weeks before each final examination takes place. This examination may be conducted only after the dissertation has been approved by the Dean of the School of Graduate Studies, and may not be administered when UMKC is not officially in session.

The defense of the dissertation is approved when a majority of the supervisory committee recommend approval and sign the Report of the Result of Final Doctoral Examination form. Within 48 hours of the defense, the supervisory committee chair will report the results of the final dissertation examination in writing to the candidate.

Deposit of Approved Dissertation with Libraries

For regulations pertaining to deposit of the approved dissertation with the libraries, please refer to Thesis and Dissertation Preparation and Approval Process, included under Graduate Academic Regulations in this catalog section.
Interdisciplinary Ph.D. Student Appeal Process

Students should process any petitions for waiver of policy or other academic appeals to their interim advisors or research advisors. The advisors should attach their recommendation and forward the request to the doctoral faculty review groups within the disciplines.

If the appeal does not require a policy decision, action on the appeal may be handled at the discipline level. If a policy decision is required or if, after action by the discipline, the student wishes a higher level of review of the case, the appeal or petition, complete with documentation of all reviews up to that point, may be forwarded to the dean of the School of Graduate Studies for action or referral to the appropriate subcommittees of the Interdisciplinary Ph.D. Executive Committee.
Interdisciplinary Ph.D. Discipline-Specific Requirements

All Interdisciplinary Ph.D. applicants and students must first meet the general requirements of the School of Graduate Studies for admission and retention in the Interdisciplinary Ph.D. program. (General Graduate Academic Regulations and Information, Application Procedure and Minimum Criteria for Admission, Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.) In addition to these general academic regulations that have been outlined in previous sections of the general catalog, disciplines may set more stringent discipline-specific requirements that take priority over the general requirements. Discipline-specific requirements for disciplines eligible to participate in the Interdisciplinary Ph.D. program are listed in alphabetical order by name of discipline. These guidelines are subject to ongoing review and revision, and the doctoral faculty reserves the right to make judicious changes in discipline-specific requirements. The student is referred to coordinators in the disciplines for the most current information.
Student Learning Outcomes

The course requirements for the program are not predetermined, but rather formulated by the student in consultation with the UMKC doctoral faculty who will serve on their supervisory committee, to meet the student’s individual needs and research interests, satisfy discipline-specific requirements and assure upon graduation students are able to:

- Students will demonstrate a thorough degree of knowledge in the primary discipline and co-discipline.
- Students will demonstrate interdisciplinarity in their writing by integrating methods, theories, paradigms, concepts, etc. from more than one discipline.
- Students will demonstrate an ability to use proper investigation techniques for their chosen disciplines.
- Students will effectively use oral and written forms of communication to convey their ideas.
Doctoral Faculty Participation in the Interdisciplinary Ph.D. Program

Major responsibility for assessment of Doctoral Faculty qualifications rests at the department level where nominations for membership are initiated. Doctoral Faculty must be duly nominated and approved regular (tenured or tenure-track) members of the faculty with the rank of assistant professor or higher. In UMKC’s Interdisciplinary Ph.D. program, three members of a student’s supervisory committee must be members of the UMKC doctoral faculty, and the research advisor must be from the primary discipline area.

There are three classifications of Graduate Faculty membership at the University of Missouri-Kansas City: (a) Graduate Faculty, (b) Ex-officio graduate faculty and (c) Adjunct Graduate Faculty. The Graduate Dean approves these appointments on an annual basis.

The supervisory committee shall be composed of one doctoral faculty from each of the primary and co-disciplines with a maximum of three from any one discipline. Up to two of the remaining members of each committee can hold either graduate or adjunct graduate faculty status. Final approval of the composition of each supervisory committee shall be obtained in writing by the advisor (or committee chair) from the Dean of the School of Graduate Studies. Where graduate or adjunct graduate faculty are included, the advisor shall provide a strong justification for their inclusion.

For purposes of the Interdisciplinary Ph.D. program, a discipline is defined as an academic unit, such as a department or division (with a chair/head) within a school, college or academic program. To be able to participate as a discipline in the Interdisciplinary Ph.D. program, a discipline, meeting the above definition, must have at least four regular doctoral-faculty members.

Doctoral Faculty Discipline Affiliation

Continuing doctoral faculty are reviewed for five-year reappointment and nominations for new appointments are considered throughout each academic year. Consequently, the list of doctoral faculty is dynamic and subject to change. Current lists are available from the School of Graduate Studies.
Art History

Discipline Coordinator
Rochelle Ziskin, (816) 235-2991, ziskinr@umkc.edu

Art History is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

Discipline-Specific Admission Requirements

Except in unusual circumstances, students who select Art History as the primary discipline in the Interdisciplinary Ph.D. program must begin their work during the fall term. Applications must be received by the School of Graduate Studies no later than January 15. The Art History doctoral faculty will review applications and make recommendations for admission by the end of February. Applications that are incomplete as of January 15, and completed applications submitted after this deadline, may not be considered until the following year.

Scholarship awards and Graduate Teaching Assistantships are made in the spring, to begin the following fall; students may sometimes be able to apply for Graduate Teaching Assistantships in the fall, for the following spring.

In rare cases, with the approval of the discipline Coordinator and faculty advisor, students may apply in the fall for the following spring.

Applicants who choose Art History as their primary discipline, or applicants whose coursework in Art History will comprise at least 50 percent of the Ph.D. plan of study, must meet the criteria for admission specified by the School of Graduate Studies.

Applicants are expected to hold an M.A. in art history, anthropology or history (or earn its equivalent during course work) and a minimum graduate-level GPA of 3.5 on a 4.0 scale.

Students with a B.A. degree must apply to our M.A. program, as the first step.

Students with some graduate work beyond the B.A., but without the M.A. degree, may be considered for the Interdisciplinary Ph.D.; they will be expected to complete all requirements for the M.A. degree.

In advance of the application (at least one month, but best to allow at least 6 weeks), eligible applicants should contact the discipline coordinator. The coordinator will help the student identify a faculty adviser.

Before an application is reviewed, a member of our doctoral faculty must agree to oversee the project. Faculty members generally accept applications only within their realms of expertise.

The discipline coordinator is available to help students with most aspects of the application process.

In addition to the required application form, test scores, recommendations and transcripts, applicants must provide:

1. A brief statement of academic and professional goals
2. A plan that specifies a research topic, demonstrates its interdisciplinary nature, and considers how interdisciplinary methods would be utilized (consult your faculty adviser)
3. Provide a research writing example (a research paper).

Suggested Compatible Co-disciplines

History (p. 1275), English (p. 1270), Humanities Consortium (p. 1279), Economics (p. 1258), Social Sciences Consortium (p. 1304), Curriculum and Instruction (p. 1256)

Primary and Co-discipline applicants granted provisional admission will receive notification of deficiencies and of the conditions that must be met before full admission can be considered.

The Art History doctoral faculty makes recommendations to the dean of the School of Graduate Studies on each application; recommendations reflect the majority vote of the doctoral faculty.

Alternate Admission Criteria

In exceptional cases, candidates who do not meet either the School of Graduate Studies’ or the Art History program’s minimum requirements for admission may be admitted under alternate criteria. This may include satisfactory performance in a 5000-level course in the program, plus written recommendations of faculty to serve on the doctoral committee.
Core Requirements

Art History as a Primary Discipline

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ART-HIST 5501</td>
<td>Scope And Methods Of Art History 1</td>
<td>3</td>
</tr>
</tbody>
</table>

1 Research methodology courses.

Remaining credits depend upon what courses the student has taken before coming into the program. Students will generally design a total plan of study (primary discipline and co-discipline coursework) that includes 60 hours beyond the baccalaureate degree (including 12 credit hours for the dissertation) or 30 hours beyond the master’s degree if that degree is in Art History.

Art History as a Co-discipline

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART-HIST 5501</td>
<td>Scope And Methods Of Art History</td>
<td>3</td>
</tr>
</tbody>
</table>

Remaining credits depend on the student’s research interests and graduate-level coursework before entering the program.

Requirements for Comprehensive Exams

Oral and written comprehensive exams are required, with questions based on courses taken and dissertation topic; one question will focus on the primary discipline, one on the co-discipline.

Other Discipline-Specific Special Requirements

Normally, reading knowledge of two foreign languages is required, as determined by the Supervisory Committee for each student. Students will master a reading knowledge of two foreign languages for Art History as a Primary discipline or as a Co-discipline.

The Faculty Advisory Committee must include two art historians. Students must complete Annual Evaluation forms each spring, to be reviewed and approved by the faculty advisors of both the primary and co-disciplines.
Biomedical and Health Informatics

Discipline Coordinator
Jenifer E. Allsworth, Ph.D. (816) 235-1781, allsworthj@umkc.edu

Biomedical and Health Informatics is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements. Information on applying to the Biomedical and Health Informatics discipline can be found at the School of Medicine web site for the Primary discipline (http://med.umkc.edu/iphd/apply-primary) and Co-discipline (http://med.umkc.edu/iphd/apply-codiscipline).

Discipline Overview
Biomedical and Health Informatics is the “scientific field that deals with biomedical information, data, and knowledge – their storage, retrieval, and optimal use for problem solving and decision making. It accordingly touches on all basic and applied fields in biomedical science and is closely tied to modern information technologies, notably in the areas of computing and communication, i.e. medical computer science.” (Definition from Stanford University, Medical Informatics.) The National Center for Biotechnology Information defines Bioinformatics as the “field of science in which medicine, biology, computer science, and information technology merge to form a single discipline. The ultimate goal of the field is to enable the discovery of new biological insights as well as to create a global perspective from which unifying principles in biology and health can be discerned.”

Curriculum Overview
The goal of the Biomedical and Health Informatics PhD discipline is to train researchers to contribute to the translation of basic science findings into patient care and ultimately into community standards and policy. Given the diversity of specialties that are included in the field of biomedical and health informatics, individual training will vary depending on the student’s career goals. Graduates of this discipline will be able to apply knowledge and skills in the area of biomedical and health informatics by: generating a research hypothesis; proposing, conducting, and reporting research; performing appropriate statistical analysis; and, communicating scientific information.

Admissions
Applicants must meet both the general and the discipline specific criteria for admission and be recommended for admission by the doctoral faculty review groups in at least two disciplines. Upon approval by the graduate dean, students are admitted to the School of Graduate Studies.

General Admissions Requirements
Please visit the Interdisciplinary PhD Program Admissions Page (http://sgs.umkc.edu/iphd-landing-page) to learn about the general application requirements.

Discipline Specific Admissions Requirements
Please visit the School of Medicine web site for information on applying to the Biomedical and Health Informatics Primary discipline (http://med.umkc.edu/iphd/apply-primary) and Co-discipline (http://med.umkc.edu/iphd/apply-codiscipline) to learn about the discipline specific application requirements. Your application to the Biomedical and Health Informatics primary discipline or co-discipline is NOT complete until you submit a one-page Goal Statement explaining your interest in the discipline through the School of Medicine Supplemental Application.

Suggested Compatible Disciplines
Mathematics
Oral and Craniofacial Sciences
Cell Biology and Biophysics
Molecular Biology and Biochemistry
Pharmaceutical Science
Pharmacology
Computer Science
Public Affairs and Administration
Engineering
Social Science Consortium

Core Program Requirements
Biomedical and Health Informatics as a Primary Discipline
Students with Biomedical and Health Informatics as their primary discipline must complete a minimum of 36 credit hours of graduate coursework in the combination of their primary discipline, co-discipline, and electives (exclusive of dissertation hours). No more than 60% (21 of 36 credit hours) can
be from any one discipline. A minimum of 9 credit hours of graduate coursework in the co-discipline is required by the Interdisciplinary PhD Program; specific requirements of the student’s chosen co-discipline, however, may require additional credit hours beyond the 9.

Core coursework in the Biomedical and Health Informatics primary discipline will include a minimum of 18 credit hours of courses in the following areas; courses taken to meet this requirement may be adjusted to reflect the courses taken in the chosen co-discipline.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MEDB 5501</td>
<td>Biostatistics I</td>
<td>3</td>
</tr>
<tr>
<td>MEDB 5502</td>
<td>Biostatistics II</td>
<td>3</td>
</tr>
<tr>
<td>MEDB 5503</td>
<td>Mixed-Effects Models</td>
<td>3</td>
</tr>
<tr>
<td>MEDB 5535</td>
<td>Quantitative Aspects of Epidemiologic Research</td>
<td>3</td>
</tr>
</tbody>
</table>

**Research Methodology and Research Ethics**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>MEDB 5510</td>
<td>Clinical Research Methodology</td>
</tr>
<tr>
<td>MEDB 5561</td>
<td>Responsible Conduct of Research</td>
</tr>
</tbody>
</table>

**Informatics (select 2 of the following)**

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEDB 5520</td>
<td>Intro-Medical Informatics</td>
<td>3</td>
</tr>
<tr>
<td>MEDB 5521</td>
<td>Clinical Bioinformatics</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 5525</td>
<td>Bioinformatics and Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 5566</td>
<td>Introduction to Bioinformatics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Coursework**

The number of credit hours of elective graduate coursework that a student completes will vary depending on the number of credit hours required by their co-discipline; the total number of graduate coursework credit hours across their primary discipline, co-discipline, and electives must equal 36 credit hours. Students may work with their advisors to tailor elective coursework based on their specific areas of interest. For example, students interested in genomics will take different elective courses than students interested in a clinical research emphasis. At least 75% of the total coursework must be from disciplines that are certified as eligible to participate in the Interdisciplinary PhD program.

**Discipline Specific Requirements**

- Qualifying Examination: The qualifying examination must be successfully completed before the student can enroll in dissertation and research hours and focus on his/her dissertation research.
- Comprehensive Examination: The comprehensive examination will consist of both a written component and an oral component that reflects dissertation research.
- Dissertation Research: Dissertation research will be conducted while the student is enrolled in Dissertation and Research (D&R) credit hours (MEDB 5696-5699). A total of 12 credit hours in D&R must be completed before the dissertation will be approved. Dissertation research will be reported in both a written format (three publication-ready manuscripts) and an oral format (formal presentation of dissertation research).
- Written Dissertation: The final format of the dissertation work that will be submitted to the university will follow general dissertation formatting guidelines and will include the three publication-ready manuscripts.
- Graduate Seminar: Doctoral students are required to attend and actively participate in the Multidisciplinary Seminar, which will include providing research presentations.

**Biomedical and Health Informatics as a Co-discipline**

Based on students’ experience and the requirements of their primary discipline, they will be required to complete at least 9 credit hours from the co-discipline as specified by the UMKC Interdisciplinary PhD Program. While the following courses are suggested core components for the Biomedical and Health Informatics co-discipline, students may work with the discipline coordinator to create an individualized plan of study for their co-discipline courses.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>MEDB 5510</td>
<td>Clinical Research Methodology</td>
<td>3</td>
</tr>
<tr>
<td>MEDB 5511</td>
<td>Principles and Applications of Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>or MEDB 5514</td>
<td>Human Genome Epidemiology</td>
<td>3</td>
</tr>
</tbody>
</table>
or MEDB 5535  Quantitative Aspects of Epidemiologic Research  
MEDB 5501  Applied Biostatistics I  3  
MEDB 5502  Applied Biostatistics II  3  
MEDB 5520  Introduction to Medical Informatics  3  
MEDB 5521  Clinical Bioinformatics  3  

Note: All students will be expected to have Biostatistics as a core competency for this co-discipline; however, it is assumed that students with a primary discipline in Mathematics will not need additional course work in statistical analysis. Those students may be required to complete Introduction to Medical Informatics or Clinical Bioinformatics instead.

For the department's policy on academic progression, please contact the discipline coordinator.
Cell Biology and Biophysics

Discipline Coordinator
Karen Bame, (816) 235-2243, bamek@umkc.edu

Cell Biology and Biophysics faculty who are members of the Doctoral Faculty (http://sgs.umkc.edu/for-faculty-and-staff/doctoralgraduate-faculty-lists)

Cell Biology and Biophysics is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

Discipline-Specific Admission Requirements
A cumulative GPA of at least 3.0 (on a 4.0 scale) on all college work for bachelor's degree or post-baccalaureate work. Due to the sequencing of coursework, new students selecting cell biology and biophysics as their primary discipline will normally only be admitted in the fall term.

Qualifying Requirements for Full Admission
Minimum of 16 hours of approved graduate coursework at UMKC toward the Ph.D. program with a grade-point average of at least 3.0 on a 4.0 scale. International students must establish English proficiency.

Suggested Compatible Co-disciplines
Chemistry, molecular biology and biochemistry, pharmaceutical science, pharmacology, oral and craniofacial sciences, and physics.

Core Program Requirements
Cell Biology and Biophysics as a Primary Discipline

Minimum Core
33 credit hours of courses and 15 credit hours of dissertation research for a total of 48 credit hours of post-baccalaureate credits, distributed as indicated below. The core courses should be completed by the end of the second academic year after admission to the graduate program on a full-time basis (individual arrangements will be made for part-time students).

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>LS-CBB 5530</td>
<td>Cell and Molecular Biology I</td>
<td>3</td>
</tr>
<tr>
<td>LS-CBB 5520</td>
<td>Cell and Molecular Biology II</td>
<td>3</td>
</tr>
<tr>
<td>LS-CBB 5596 or LS-CBB 5597</td>
<td>Advanced Experimental Cell Biology I</td>
<td>2</td>
</tr>
<tr>
<td>LS-CBB 5612 or LS-CBB 5590</td>
<td>Seminar in Cell Biology and Biophysics (2 x 1 cr. hr.)</td>
<td>2</td>
</tr>
<tr>
<td>BIOLOGY 5501</td>
<td>Proposal Writing</td>
<td>1</td>
</tr>
<tr>
<td>7 cr. hr. in discipline or related discipline courses (LS-CBB, LS-MBB, BIOL, PHARM, etc.)</td>
<td>15 cr. hr.</td>
<td>LS-CBB 5699, Dissertation Research</td>
</tr>
</tbody>
</table>

Seminar courses are part of this component of required courses, up to a maximum of three for the program, as are additional credits of Advanced Experimental Molecular or Cell Biology (a total of four credits in experimental laboratory courses, independent of thesis research, is required). 5700-level courses may not be used to satisfy cell biology and biophysics discipline-specific course requirements.

Any of the above courses, whether part of the primary or related discipline requirements, will be credited toward the 33-credit Ph.D. course requirement if taken as part of any graduate program at UMKC and if a grade of "B" or better is received.

In addition to the basic 33-credit course core, each student's Faculty Advisory Committee may require up to nine credit hours in additional elective courses in any University-approved doctoral discipline as preparation for specific areas of research. No more than seven credit hours of 5500-level courses, or their equivalents, can be taken at institutions outside UMKC.

For Students with Cell Biology and Biophysics as a Co-discipline

<table>
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<tbody>
<tr>
<td>LS-CBB 5530</td>
<td>Cell and Molecular Biology I</td>
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</tr>
<tr>
<td>LS-CBB 5520</td>
<td>Cell and Molecular Biology II</td>
<td>3</td>
</tr>
<tr>
<td>LS-CBB 5612</td>
<td>Seminar in Cell Biology and Biophysics</td>
<td>1</td>
</tr>
<tr>
<td>Additional SBS graduate courses (LS-CBB, LS-MBB or BIOL) for a minimum of 10 cr. hr.</td>
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</tbody>
</table>
A sufficient amount of other core courses to constitute the required percentage of their overall program of study. 5700-level courses may not be used to satisfy cell biology discipline-specific course requirements.

**Requirements for Comprehensive Exams**

Full-time students with cell biology as their primary discipline must take their comprehensive examination before the beginning of the third academic year after admission to Ph.D. study. Part-time Ph.D. students in this discipline must complete their comprehensive examination immediately after completion of the 25-hour course requirement on their Ph.D. plan of study.

**Format**

For students with this discipline as their primary discipline, written and oral examinations are required.

**Written Portion**

The written examination, for students who have cell biology and biophysics as their primary discipline consists of an NIH-style grant proposal that the student will prepare. The topic of the research proposal will be determined by the student in consultation with the student's supervisory committee.

**Oral Portion**

The oral examination has two aspects: (1) questions covering the grant proposal prepared by the student for the written examination and (2) other related material in the student's area of specialization, including fundamental knowledge of the student's chosen disciplines.

**Other Discipline-Specific Special Requirements**

Students with this discipline as a primary discipline must participate in the teaching program of the School of Biological Sciences.

Students with this discipline as a primary discipline or co-discipline must participate in seminars.

**Retention in Program**

No more than one C grade will be permitted in basic core coursework. If a student with this discipline as the primary discipline receives more than one C grade in a basic course, he or she will be dropped from the doctoral program. Students with this discipline as a co-discipline who receive more than one C grade will be dropped from the discipline.

The doctoral faculty in cell biology and biophysics meets formally at the end of each academic year to discuss and evaluate all graduate students' progress. Each student's committee also meets with the student at least once a year. After the annual doctoral-faculty meeting, each student receives a written evaluation of his or her status and a report is placed in the student's file.
Chemistry

Discipline Coordinator
Kathleen Kilway, (816) 235-2289, kilwayk@umkc.edu
Chemistry faculty who are members of the doctoral faculty.

Chemistry is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

Discipline-specific Admission Requirements
Chemistry as a Primary Discipline

Normally, only applications to full-time academic status will be considered. To qualify for full admission (Note: full admission is unrelated to full-time academic status), applicants are expected to have the equivalent of an American Chemical Society-approved bachelor’s degree in chemistry, which includes coursework in general chemistry, analytical chemistry, one year of organic chemistry, inorganic chemistry and one year of physical chemistry requiring calculus and physics as prerequisites. (For example, see UMKC’s B.S. program in the Chemistry section in this catalog.) Applicants will be admitted as provisional students with a limited number of undergraduate deficiencies. They will be notified, at the time admission is offered, of any requirements to be met for reclassification as fully admitted. Undergraduate courses included in these requirements must be completed with grades of “C” or higher.

Applicants should take particular note of the physical chemistry requirement.

Applications are only accepted through the online system, and include:

1. Official, confidentially transmitted transcripts.
2. Statement of purpose.
3. Three confidentially transmitted letters of recommendation (academic and/or professional).
4. Official Graduate Record Exam (General Test) score, less than six (6) years old.
5. English language proficiency requirement.

An official Graduate Record Exam score (general test) is required as part of the application to the program. The GRE score will be evaluated as part of the entire application.

Suggested Compatible Co-disciplines
Curriculum and instruction, engineering, geosciences, mathematics, pharmaceutical sciences, physics, and pharmacology.

Chemistry as a Co-discipline

Applicants are expected to have undergraduate coursework in general chemistry and organic chemistry. Applicants accepted as provisional students will be notified, at the time admission is offered, of any requirements to be met for reclassification as fully admitted. Undergraduate courses included in these requirements must be completed with grades of “C” or higher.

Core Program Requirements
Chemistry as a Primary Discipline

Coursework Requirements
Students are to see the principal graduate advisor, or their research advisor, for advising and signature prior to registering each semester.

Students must successfully complete a minimum of fifteen credit hours and a maximum of eighteen credit hours of didactic chemistry graduate coursework, among which one course must be from Group A, one course from Group B, and a minimum of two additional courses (six credit hours) from any graduate chemistry course numbered 5500 to 5589, excluding CHEM 5520R, CHEM 5530A, CHEM 5530B and CHEM 5540R. The remaining required chemistry credit hours may be satisfied with directed studies (CHEM 5590). In addition, students must complete one credit hour of chemistry seminar (CHEM 5611). A grade of C+ (2.3) or less in more than two chemistry courses applicable to the Ph.D. program will result in termination from Ph.D. candidacy.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>Group A</td>
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<tr>
<td>CHEM 5531</td>
<td>Classical Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 5532</td>
<td>Chemical Kinetics</td>
<td>3</td>
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<tr>
<td>CHEM 5533</td>
<td>Quantum Chemistry</td>
<td>3</td>
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<tr>
<td>CHEM 5534</td>
<td>Molecular Spectroscopy</td>
<td>3</td>
</tr>
</tbody>
</table>
CHEM 5535  Statistical Thermodynamics  3
CHEM 5521R  Mechanisms Of Organic Reactions  3
CHEM 5522  Synthetic Organic Chemistry  3

In addition, students must successfully complete twelve (12) to fifteen (15) credit hours of 400-level or above coursework in other disciplines, among which a minimum of nine (9) credit hours must be in their co-discipline(s). A minimum of three (3) credit hours in the codiscipline must be at the 5500+ level. Students may be required to take additional courses as outlined by their plan of study.

Any of the above chemistry courses will be credited toward the Ph.D. coursework requirement if taken as part of any previous graduate program at UMKC and a grade of B- (2.7) or better is received. Also, students who have received a grade of B- (2.7) or better in graduate chemistry coursework taken as part of a degree program at another institution may have up to six credit hours of equivalent required coursework waived upon approval of a majority of the supervisory committee. A written request for this waiver is to be submitted and approved before submission of the student’s plan of study.

Courses/Experiences Providing Instruction in Research Methodology
Expertise in research methodology will be acquired under the mentorship of the research advisor and supervisory committee. The student’s progress will be assessed annually by his/her supervisory committee and the results will be forwarded to the School of Graduate Studies.

Number of Credit Hours Required beyond Bachelor’s Degree
A total of 46 credit hours are required, among which 30 credit hours are from didactic courses, 15 credit hours from dissertation research and 1 credit hour of chemistry seminar. Among the 30 didactic hours, a minimum of 15 credit hours and a maximum of 18 credit hours are from chemistry, and a minimum of 9 credit hours are from the co-discipline. Up to six credit hours of chemistry courses may be waived, as described above under Coursework Requirements.

Chemistry as a Co-discipline
Coursework Requirements
Students are required to complete a minimum of three courses (nine credit hours) at the 400-level or above from classes offered by the Department of Chemistry or in conjunction with other units as approved in the student’s plan of study. At least three of these credit hours must be at the 5500+ level and taken from courses offered by the Department of Chemistry. The systematic courses CHEM 5520R and CHEM 5530 may be used to satisfy the "400-level or above" requirement, but not the "5500+ level" requirement. CHEM 5590, CHEM 5599 and CHEM 5699 may not be used to satisfy these requirements. Students who receive a grade of C+ (2.3) or less in two or more courses used to satisfy these requirements will be disqualified from using Chemistry as their co-discipline.

Any of the above chemistry courses will be credited toward the Ph.D. coursework requirement if taken as part of any previous graduate program at UMKC and if a grade of B- (2.7) or better is received. Transfer credit from another institution cannot be applied to Chemistry's co-discipline requirement.

Special Requirements
Chemistry as a Primary Discipline
Placement Examinations
Incoming students take placement examinations in analytical inorganic, organic and physical chemistry. Placement examinations are typically administered the week preceding the first week of classes of the fall and spring semesters. Students scoring below the 50th percentile in the organic and/or physical chemistry exams are required to enroll in CHEM 5520R and/or CHEM 5530A /CHEM 5530B, respectively. Enrollment in other graduate organic or physical chemistry courses is not permitted until CHEM 5520R and/or CHEM 5530A /CHEM 5530B, respectively, is(are) successfully completed. CHEM 5530A /CHEM 5530B is currently offered concurrently with CHEM 431 or CHEM 432. A student is required to take either CHEM 5530A/CHEM 431 or CHEM 5530B/CHEM 432 or both, depending on his/her performances in the various sub-disciplines of the physical chemistry placement exam. Should a student be required to take both CHEM 5530A/CHEM 431 and CHEM 5530B/CHEM 432, the average grade of the two CHEM 5530 courses will be considered for the fulfillment of the physical chemistry deficiency. Two grades of C+ (2.3) or lower, or one grade of less than C- (1.7) in CHEM 5520R / CHEM 5530 will result in termination from the degree program. These courses may not be counted toward the coursework requirements above. Students must complete all additional coursework required as a result of the placement exam scores by the end of their first three regular semesters.

Research Advisor
Full-time students are to select a research advisor from the doctoral faculty of the Department of Chemistry and a supervisory committee by the end of their first regular (e.g. fall or spring) semester on campus. For chemistry as the primary discipline, the student’s supervisory committee shall consist of the research advisor in chemistry and two additional chemistry doctoral faculty as well as at least one doctoral faculty member from each co-discipline.

Seminar
Students are required to attend and participate in all regularly scheduled and special Chemistry Department seminars and colloquia. Students are required to present a one-hour chemistry seminar (CHEM 5611) during their second year following full admission to the Ph.D. program, based on their
dissertation research project. This seminar will include a thorough review of the literature pertinent to their project and a description of the objectives, the proposed methodology and the significance of this research. An abstract is to be posted and distributed one week prior to the presentation date.

**Time Constraints and Financial Support**

Students must complete all requirements for their degree within seven years from the date of full admission to the Ph.D. program. Under compelling circumstances and on the written recommendation of a majority of the supervisory committee, a single extension for up to one year may be requested for approval by the dean of the School of Graduate Studies. Full-time (as defined in the current UMKC catalog) Ph.D. students may receive financial support (in the form of fellowships or teaching assistantships) from the Department of Chemistry for a maximum of five years. Students from countries not having English as their first language, and who are to be supported as GTAs, must meet the UMKC standards for international students to become certified as GTAs. Full information on that process can be found here: Policy on Award of Teaching Assistantships (p. 1214).

**Dissertation**

All supervisory committee members are to receive a final draft of the dissertation for approval of form and content at least two weeks before submission to the dean of the School of Graduate Studies for certification. Candidates should submit preliminary drafts well in advance of this deadline. After the dissertation is certified for acceptance, the student must present an oral defense of his/her research in the form of a dissertation seminar. The supervisory committee will make a final determination of the acceptability of the dissertation immediately following this presentation. Only minor changes may be made to the dissertation at this point.

**Expectations for Interdisciplinary Work**

**Chemistry as a Primary Discipline**

Students develop and pursue a plan of study that includes coursework from the primary discipline and co-discipline(s). The interdisciplinary nature of the student's program is emphasized in the comprehensive examination, which includes material from all disciplines in the plan of study.

**Chemistry as a Co-discipline**

The Department of Chemistry will cooperate with the student's primary discipline in assessing the interdisciplinary nature of the student's progress.

**Comprehensive Examination Guidelines**

**Chemistry as Primary Discipline**

All students are required to prepare a research proposal describing a research project. An abstract is to be posted and distributed, and a written copy of this proposal (in standard NSF or NIH format) given to all members of the examination committee (consisting of the student’s supervisory committee and others selected by the Dean of the School of Graduate Studies) at least one week prior to presentation in a proposal seminar. This seminar must be presented to all members of the examination committee by the end of the second year following full admission to the Ph.D. program.

A written comprehensive examination will be prepared and administered by the examination committee before completion of the student’s third year following full admission to the Ph.D. program. This examination will be based on the student’s coursework and on general knowledge in all areas of his/her specialization. All efforts will be made to emphasize the multidisciplinary nature of the student’s program in this examination. If the student fails the written portion of the comprehensive examination, he/she may petition the examination committee to allow for a single opportunity to retake it. This second examination must be completed no earlier than 12 weeks and no later than six months from the date of completion of the first examination.

The research proposal and the written comprehensive exam constitute parts of the comprehensive exam. An IPHD student may elect to enroll in 3 credit hours of CHEM 5590, the grade for which will be CR/NC-only and will be based on the outcome of the comprehensive exam; retroactive enrollment is allowed. An Interdisciplinary PhD student with chemistry as the primary discipline, who has passed the comprehensive exam can have up to 9 credit hours of CHEM 5590/CHEM 5599/ CHEM 5699 counted towards a non-thesis MS degree in Chemistry.

**Chemistry as a Co-discipline**

The comprehensive examination will be determined by the student’s primary discipline in cooperation with the co-discipline(s).
Computer Science

Discipline Coordinator
Yugyung Lee, (816) 235-5932, leeyu@umkc.edu

Computer Science is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

Discipline-Specific Admission Requirements

A student who meets the minimum discipline requirements stated below will be considered for regular admission to the Ph.D. program. A student, who does not meet some of the requirements but shows high potential for advanced-level work, may be considered for provisional admission. Admission also depends on factors such as number of seats available, resources available in the area of student's interest, the quality of previous work, etc. A student who does not qualifying for admission to the Ph.D. program, may be considered for admission to the M.S. in computer science program. Requirements for admission are similar, whether the applicant is requesting computer science as the primary or co-discipline. Minimum Recommended PhD Admission Requirements:

1. GPA (Bachelor or equivalent Degree): 3.5 in the scale of 4 (or equivalent)
2. GPA (MS or equivalent Degree if any): 3.5 in the scale of 4 (or equivalent)
3. GRE (Quantitative) minimum score: 80%
4. TOEFL iBT minimum Score: 89 or IELTS minimum score = 6.5
5. Prior Projects or Publications (Preferred)*
6. Internationally Acceptable Accreditation of the Prior Degree Awarding Institutes

* Prior research project and/or publication record is not required for admission into CS PhD program. However, doctoral faculty members give very high value to the students with such backgrounds.

Direct or Expedited PhD Program

It is not required to have an MS or equivalent degree to apply to CS PhD program. We accept well qualified and motivated students with a Bachelor degree directly into our PhD program. We actively encourage students in the Direct PhD Program to try to complete the doctoral study within 4 or 5 years after the Bachelor degree. To complete the PhD degree in an expedited timeline, first, the student has to be dedicated and well qualified. Second, the student must make a comprehensive plan at the beginning of the doctoral study to complete all the relevant steps within a strict timeline, which is challenging but not impossible.

Clarification of Minimum Requirements and Decision Process

Academic Preparation

The applicant must have a bachelor's degree and/or a master's degree in computer science, computer engineering, electronics, communications engineering or any other field requiring substantial training in at least one of the above fields and in mathematics with a GPA of 3.5 or better on a 4.0 scale, cumulative as well as in the major field; and a GPA of 3.5 or better on a 4.0 scale, in all post-baccalaureate or post-master's degree work.

Aptitude for Advanced Work

The student must demonstrate an aptitude for advanced-level work through national/international standardized examinations such as the GRE. The expected performance level is the 80th percentile in the quantitative portion of the GRE examination. The student must also show an excellent performance in all of his or her coursework.

Proficiency in English

The student must demonstrate his or her proficiency in oral and written communication in English through national/international standardized English examinations such as TOEFL, verbal portion of the GRE, etc. Because of this test, the student may be required to improve his or her oral and written communication in English before enrollment in the courses of the chosen disciplines.

Note: For students with a North American (USA and Canada) B.S. or M.S. degree the English Proficiency requirement is exempt.

Recommendation Letters

The student must provide at least three recommendation letters, identifying clearly his or her academic achievements and exceptional quality, from the professors from his or her previous institution(s). If the applicant has been out of school for several years, recommendation letters from his or her supervisors (technical) will be acceptable. However, even in this situation, a recommendation letter from his or her last academic institution is highly recommended. A recommendation from a faculty member in the Computer Science Electrical Engineering (CSEE) Department at UMKC must be provided if the student has taken courses from or worked with the CSEE faculty.
Statement of Goals and Objectives
The applicant must provide a 250- to 500-word essay on his or her goals and objectives of pursuing the Ph.D. in the chosen fields. This is an important document for reviewing the application. Applicants, therefore, are advised to provide a clear account of their academic achievements and plans for higher study.

Admission at an Advanced Level
An applicant who has already completed significant graduate coursework (15 or more semester hours of post-master’s work or 30 or more hours of post-bachelor’s work) toward a Ph.D. at another institution must provide reasons for changing institutions. The applicant must also provide a letter of endorsement from a computer science doctoral faculty member indicating willingness to be the student’s research advisor.

PhD Admission Decision Process
PhD admission decision is made by the CS PhD Committee considering individual doctoral faculty member’s needs and preferences. The role of CS PhD Committee is to ensure that PhD applicants satisfy the minimum requirements (GPA, GRE, TOEFL/IELTS, reputation of prior degree awarding institutes and other scholarly achievements). If the requirements are satisfied and a doctoral faculty member accepts the new applicant only then the CS PhD Committee takes a positive decision about a particular applicant. In rare occasion, we bring exceptionally well-qualified students without the acceptance from a doctoral faculty.

Qualifying Requirements for Full Admission
Prerequisite Knowledge
A Ph.D. student selecting Computer Science (CS) as the primary (coordinating) Ph.D. discipline is expected to have the level of preparation represented by a four-year undergraduate degree in computer science. The applicant may have received a bachelor’s degree or a master’s degree in computer science, computer engineering, electrical engineering or electronics, or any other related field with substantial training in mathematics. An applicant with only a B.S. degree in computer science must have at least a GPA of 3.5/4.0 and an applicant with at least a year of graduate work must have at least a GPA of 3.5/4.0 before attempting advanced study.

Selection of a Co-Discipline and Suggested Compatible Co-Disciplines
To broaden the knowledge of the PhD students UMKC Interdisciplinary Ph.D. program requires each student to select a co-discipline closely related to the primary discipline. The following are suggested compatible co-disciplines for CS students:

• Telecommunications and computer networking (https://catalog.umkc.edu/colleges-schools/graduate-studies/telecommunication-computer-networking),
• electrical and computer engineering (https://catalog.umkc.edu/colleges-schools/graduate-studies/electrical-computer-engineering),
• biomedical and health informatics (https://catalog.umkc.edu/colleges-schools/graduate-studies/biomedical-health-informatics),
• mathematics (https://catalog.umkc.edu/colleges-schools/graduate-studies/mathematics),
• physics (https://catalog.umkc.edu/colleges-schools/graduate-studies/physics),
• chemistry (https://catalog.umkc.edu/colleges-schools/graduate-studies/chemistry)(computational focus),
• engineering (https://catalog.umkc.edu/colleges-schools/graduate-studies/engineering)(civil and mechanical focus),
• cell biology and biophysics (https://catalog.umkc.edu/colleges-schools/graduate-studies/cell-biology-biophysics),
• molecular biology and biochemistry (https://catalog.umkc.edu/colleges-schools/graduate-studies/molecular-biology-biochemistry),
• oral and craniofacial sciences (https://catalog.umkc.edu/colleges-schools/graduate-studies/oral-craniofacial-sciences),
• pharmaceutical sciences (https://catalog.umkc.edu/colleges-schools/graduate-studies/pharmaceutical-sciences),
• pharmacology (https://catalog.umkc.edu/colleges-schools/graduate-studies/pharmacology),
• geosciences (https://catalog.umkc.edu/colleges-schools/graduate-studies/geosciences),
• economics (https://catalog.umkc.edu/colleges-schools/graduate-studies/economics),
• entrepreneurship (https://catalog.umkc.edu/colleges-schools/graduate-studies/entrepreneurship).

A co-discipline outside of this list may be considered only in exceptional cases. These co-disciplines require 3 or 4 courses to be taken by the CS Ph.D. students to fulfill the co-discipline requirements.

Notes:
• CS Ph.D. students do not need to apply to a Co-Discipline at the time of admission.
• CS Ph.D. students have to select a co-discipline in the first semester after coming to UMKC.
• CS Ph.D. students are advised to consult their primary (CS) adviser to select an appropriate co-discipline.
• CS Ph.D. students can change their co-discipline any time before the comprehensive exam.
Transfer of Course Credit
New Ph.D. students with some prior graduate level course works from another university can apply to transfer up to 6 credit hours in each discipline (primary and co-discipline).

Length of Time to Complete Qualifying Requirements
When a student is admitted provisionally, the CSEE Ph.D. Committee will specify, and the UMKC Interdisciplinary Executive Committee will confirm, the conditions and length of time available to satisfy them to achieve full admission status.

Alternate Admission Criteria
The applicant may have received a bachelor's degree or a master's degree in computer science, computer engineering, electrical engineering or electronics, or any other related field with substantial training in mathematics. An applicant not meeting the minimum admission requirements, or not having sufficient academic preparation (stated below under prerequisite knowledge) for advanced work in the chosen primary discipline(s), may be considered for provisional admission by the CSEE Department Ph.D. committee if the committee sees high potential and preparation for advanced work from the rest of the applicant's credentials. Evidence of high potential might be pertinent work experience, published papers or extremely high achievement in related areas. In any case, the required GPA (or GPAs) must be at least 3.0 on a 4.0 scale, and the coursework deficiencies for doctoral study in computer science must not be more than 18 semester hours. Applicants with an established research or publication record in a quantitative science are encouraged to apply.

Application for an MS Degree while Enrolled in CS Ph.D. Program
CS Ph.D. students may apply to receive an MS degree upon passing the qualifying and comprehensive exams provided that the coursework required for MS degree under course only option is completed. This is a very good option for students in CS Direct Ph.D. Program. However, this is subject to primary Ph.D. supervisor's approval.

Note: If a CS Ph.D. student fails to pass the Qualifying Exam in two attempts or cannot successfully complete the Comprehensive Exam, the student will not be allowed to apply for transfer to the MS program or apply to receive an MS degree even if the coursework required for MS degree under course-only option is completed. Please consult your CS Ph.D. supervisor and/or CS Ph.D. Discipline Coordinator for details.

Core Program Requirements
The amount of work required for the Ph.D. depends on the student's level of preparation. For example, a student entering the Ph.D. program after earning a bachelor's degree may expect to do significantly more work compared to a student who enters after earning a master's degree.

Computer Science as a Co-Discipline
- Students who choose CS as a co-discipline need to take 3 CS graduate courses (9 credit hours).
- Students who choose CS as a co-discipline do not need to take the CS PhD Qualifying Exam.
- TCN and ECE PhD students are automatically eligible for CS Co-Discipline.

Discipline Course Requirements
The total Interdisciplinary Ph.D. course credit (didactic) requirement is 30 hours which is divided into (a) primary discipline (12 credits), (b) co-discipline (9 credits), and (c) the remaining 9 credits can be completed either by doing graduate level courses at UMKC in any participating discipline or credits can be transferred from students' previous institutions. This credit transfer must be approved by the CSEE Department Ph.D. committee.

Full-time Status and Doctoral Residency Requirement
US Domestic students can enroll into any number of credit hours per semester during the regular academic year (Fall and Spring). According to US Federal Law, international students are usually required to enroll in 9 credit hours per semester during the regular academic year (Fall and Spring) to maintain fulltime (visa) status. However, for international graduate (PhD and MS) students with 50% FTE (20 hours per week) appointments as Graduate Research/Teaching Assistants the requirement is 6 credit hours of enrolment per semester for full time equivalence. Enrolment is not required in Summer. Interdisciplinary Ph.D. students must satisfy the doctoral residency requirement by satisfactory completion of at least 18 credits in no more than 24 consecutive months.

Financial Aid
Various forms of financial aid (such as graduate research assistantships, graduate teaching assistantships, graduate fellowships) are available through the Computer Science Electrical Engineering Department and the School of Graduate Studies. Contact the discipline coordinator for more information. Most of our PhD students are funded through Graduate Research Assistantship (GRA) and/or Graduate Teaching Assistantship (GTA). GRA support is provided by individual doctoral faculty members from their research grants. GTA support comes from Department Chair's instructional fund. However, the GTA support is also provided based on the recommendation of the Ph.D. adviser. Department Chair normally honors the requests for GTA support if there are available GTA slots. Therefore, every PhD student must have a faculty adviser to get funding in the form of GRA or GTA. Once a PhD student is admitted the Department Chair and the doctoral faculty members will try our best to provide funding to the student throughout the PhD study. However, the applicants must keep in mind that the number of funding slots (GRA and GTA) for the PhD students are not unlimited. The supports are provided based on respective faculty adviser's recommendations and Department Chair's needs. The awarding of GRA and GTA
funding is a competitive process. The students are required to maintain high academic standing and demonstrate strong research performance to get continuous support throughout the PhD study. Our Department’s policy is to provide support to as many PhD students as possible. Additionally, UMKC School of Graduate Studies provide many different types of fellowships, awards and scholarships to qualified graduate students through a competitive selection process. Please visit the website of the School of Graduate Studies for further details.

Note:

- A GTA can only be awarded to a student after the student has successfully demonstrated his or her teaching potential to a committee and has successfully passed the English language test.
- If a student receives financial aid in the form of GTA/GRA from the CSEE Department or its doctoral faculty members after the full admission and enrolment into CS Ph.D. program, the student must complete the doctoral study. If a funded Ph.D. student decides to leave the program at any stage before the completion no terminal MS or equivalent degree will be awarded.

**Monthly Stipend for Ph.D. Students with GRA/GTA Appointments**

Ph.D. students with 50% FTE (20 hours per week) appointments as GRA/GTA will receive a stipend of around $6000 (subject to availability of funds) per semester during the Fall and Spring semesters. This stipend will be paid in 4 or 5 monthly installments. All GRA/GTA appointments (if awarded) are for one regular academic year (Fall and Spring) for the new students. Beyond the first year, the GRA/GTA supports are subject to availability and performance. There is no guaranteed financial support for the Summer semester.

**Tuition Rates and Credits**

UMKC offers in-state tuition rate to all (domestic and international) Ph.D. students. Ph.D. students with 50% FTE (20 hours per week) GRA/GTA support from CSEE department will receive a tuition fee coverage of up to 6 credit hours per semester at in-state rate. Therefore, all Ph.D. students (domestic and international) with 50% FTE (20 hours per week) GRA/GTA appointment can maintain fulltime status (6 credit hours per semester) with all tuition fees covered by UMKC and CSEE Department. This tuition fee coverage is in addition to the stipend mentioned above. However, there are some additional fees and expenses that have to be paid by the students at the time of registration. Other Fees and Health Insurance Students are responsible for some additional fees, health insurance, books and supplies, and living cost.

**Timeline and Steps Toward the Completion of CS Ph.D. Degree**

New Ph.D. students are strongly advised to make a clear plan in consultation with the CS Ph.D. adviser as soon as they start their doctoral study to complete the following steps within the required time line:

1. **Annual Evaluation:** Starting from the second year, every year each Ph.D. student is required to complete an annual evaluation form and forward it to the primary and co-discipline supervisors, who will submit it to the School of Graduate Studies along with the evaluation of the student’s yearly progresses. Link to Graduate School Forms (https://sgs.umkc.edu/forms). Due Date for Annual Evaluation: September 30th.

2. **PhD Qualifying Examination:** Students taking an CS Ph.D. Discipline as the primary (coordinating) unit should make the first attempt to pass the qualifying exam during the first three (3) regular semesters after fully admitted to the doctoral study at UMKC. The student must pass both parts of the qualifying exam within four (4) regular semesters. Summer term in not counted.

3. **Plan of Study:** The Ph.D. Plan of Study from, signed by the student, members of the student’s proposed Supervisory Committee, and the Academic Administrators in the student’s disciplines, must be filed with the School of Graduate Studies no later than the end of the second year (24 months) after the student has been fully admitted. The Interdisciplinary Ph.D. Plan of Study may be filed prior to that time. Link to Graduate School Forms (https://sgs.umkc.edu/forms).

4. **Formation of Ph.D. Supervisory Committee:** The Supervisory Committee shall consist of at least five members composed of one doctoral faculty from each of the primary and co-disciplines, with a maximum of three from any one discipline. Regarding the formation of the committee the student should consult the primary (CS) Ph.D. supervisor, who will be the Chair of the Committee. Names and signatures of the committee members have to be submitted with the Plan of Study.

5. **Fulfilling PhD Residency Requirement:** Ph.D. students must satisfy the doctoral residency requirement by satisfactory completion of at least 18 credits in no more than 24 consecutive months.

6. **Comprehensive Examination:** The format and general requirements for the comprehensive exam vary according to the Ph.D. discipline. The Comprehensive Exam is administered by the candidate’s doctoral committee. A student can either take a written test or opt for an oral presentation covering both coordinating and co-discipline areas. Discussion with and agreement from the student’s doctoral committee is required before choosing the best option. Candidates should contact the CSEE Department’s office and the chair of their doctoral committee for more information. Link to Graduate School Forms (https://sgs.umkc.edu/forms).

CS Ph.D. discipline usually requires the students to make a formal presentation on the background study, current progresses and future plans regarding the selected research problems for doctoral study. CS students can take the comprehensive exam any time after passing CS Ph.D. Qualifying Exam and the approval of the Plan of Study by the School of Graduate Studies.

1. **Interdisciplinary Ph.D. Research Proposal:** After the completion of the Comprehensive Exam each Ph.D. student must submit a written Research Proposal to the School of Graduate Studies. Link to Graduate School Forms (https://sgs.umkc.edu/forms).

2. **Doctoral Dissertation:** The format and general requirements for the Doctoral Dissertation exam vary according to the discipline. CS Ph.D. discipline requires the students to make a formal presentation on the outcomes of the doctoral research in front of the committee members. CS
comprehensive exam and dissertation defense presentations are open to all students and faculty members. In addition, it is recommended that students submit a draft copy of the thesis to the committee members prior to the presentation. The defense of the dissertation is approved when a majority of the supervisory committee members recommend approval and sign the Report of Results of Final Dissertation Examination form. Students can schedule Dissertation Defense six months after the comprehensive exam. Link to Graduate School Forms (https://sgs.umkc.edu/forms).

3. Final Thesis Submission: After the successful completion of the Dissertation Defense, Ph.D. students must formally submit their Ph.D. thesis according to the format and instructions of the School of Graduate Studies. Link to Graduate School Forms. (https://sgs.umkc.edu/forms)

Notes:

- Ph.D. students are allowed to apply for extensions/exceptions/changes under exceptional circumstances.
- Part-time Ph.D. students may apply for flexibility of the timeline regarding the above-mentioned steps.
- Students are advised to regularly check the updates and modifications by the Schools of Graduate Studies.

**Ph.D. Qualifying Exam for Computer Science Discipline**

The qualifying exam is conducted to confirm that the student has a sound understanding of the fundamentals of computer science and has developed good problem-solving skills and research potential. This document includes the syllabus and describes the procedure for taking the qualifying exam in the Computer Science discipline.

**Eligibility**

The student must be fully admitted to the Ph.D. program at UMKC. Students admitted provisionally will have to satisfy all requirements stipulated in the letter of admission before being fully admitted.

**Duration for Clearing Qualifying Exam**

Both full-time and part-time students must take the Ph.D. qualifying exam by the third semester from the date he or she is fully admitted. For example, if a student is fully admitted in the Fall 2015 semester, then he or she must take the qualifying exam by the Fall 2016 semester. Failure to do so will disqualify the student from continuing in the Ph.D. program. Upon consultation with his/her interim adviser, a student may choose to take the qualifying exam earlier than the third semester. If a student fails the qualifying exam in the first attempt then he or she MUST retake it in the subsequent semester. Failure to clear the exam in the second attempt disqualifies the student from remaining in the Ph.D. program with Computer Science as the primary discipline.

**Qualifying Exam Dates**

Qualifying tests are administered twice a year, on the first Friday (Written Exam) and the second Friday (Oral Exam) of April and November.

**Qualifying Exam Procedure**

1. **Registration:** Eligible Ph.D. students must register to take the exam. The registration deadline is March 31 for the April exam and October 31 for the November exam. Eligible students should send an e-mail with the following information to the Student Services Coordinator and the Discipline Coordinator.

2. **Registration Notification:** Students will be notified by e-mail.

3. **Taking the Exam:** Students take the test on the prescribed date.

**Exam Format**

The qualifying examination consists of two parts: a written part and an oral part. Students only have two attempts to pass the written part. The oral part may not be attempted unless the written part has been passed.

**Written Qualifying Examination**

A full-day written examination will be given at the exam date. The written examination will cover the following topics: Data Structures and Algorithms, Operating Systems. A student will answer a set of questions from each topic as indicated on the exam.

**Oral Qualifying Examination**

Approximately one to two weeks after the written examination, an oral examination will be given. This exam requires that all members of the committee be present and is open to all members of the faculty and students. The exam will be administered by the CS discipline coordinator. First, this exam will be prepared by the members of the doctoral committee at the request of the student’s primary advisor by identifying a set of published manuscripts relevant to the student’s area of advanced study. These manuscripts will be given to the student in the form of a take-home examination at least one week ahead of time. The student will prepare a written summary of the published manuscripts. The contents of the summary are presented to the doctoral committee and the student is questioned about the material. A significant part of the summary and presentation should be a description of the technical gaps in the previous work and the identification of possible research projects that address these gaps. The examination committee will evaluate the written summary, the oral presentation, and the student’s answers.
The written qualifying exam will contain questions from the topics listed below. The questions will be based on the material typically taught in the specified undergraduate and graduate courses. The students must have a sound understanding of these topics and are expected to demonstrate this in their answers.

1. Data Structures and Algorithms (Based on COMP-SCI 303, COMP-SCI 404, COMP-SCI 5592)
2. Operating Systems (Based on COMP-SCI 431)

Ph.D. Qualifying Written Exam Syllabus

The syllabus lists the main topics in each area. Students are strongly advised to consult the listed textbooks to prepare for the exam.

1. **Data Structures and Algorithms**
   - Basic knowledge of algorithm complexity (Big-Oh, Big-Omega, Big Theta, best, worst, and average case analysis, etc.).
   - Binary trees, Binary search trees, AVL trees, Heaps, B-trees, B+ trees, Graphs, Hashing (Static, Dynamic, and Extendible), Huffman codes, Divide-and-conquer, Searching, Sorting, In-order, Pre-order, and Post-order traversals, Breadth first, Depth first graph traversal), Spanning trees and Shortest path. Divide and Conquer method, Dynamic programming, Greedy algorithms, Depth-first and Breadth-first search, Shortest path algorithms, Minimum spanning trees, NP-completeness.

   **Reference books**
   - *Data Structures and Algorithm Analysis in C++* by Mark Allen Weiss, Addison Wesley.
   - *A Practical Introduction to Data Structures and Algorithm Analysis* by Clifford A. Shaffer, Prentice Hall.

2. **Operating Systems**
   - Process management (synchronization, concurrency, deadlock), Memory management, Process and Job scheduling, Performance models (expected behavior), File systems, and IO..

   **Reference books**
   - *Modern Operating Systems* by Andrew Tanenbaum, Prentice Hall

Exam Results

After the exam, the committee will cast votes of pass or fail on both the oral and written exams. The minimum passing grade is 70%. Borderline cases will be discussed by the committee. These results are recorded on the Report of the Written and Oral Qualifying Examination form. The Discipline Coordinator will make the result of the exam available within two weeks from the date of the exam.

The result could be one of the following.

1. **Pass**: The student proceeds to the next level of the Ph.D. curriculum. He or she prepares the plan of study and finalizes the composition of his or her supervisory committee. The plan is submitted to the graduate office for approval.

2. **Fail**: If a student fails then he/she must retake and clear the exam in the subsequent semester. Failure to clear the exam in the second attempt disqualifies the student from remaining in the Ph.D. program with CS as the primary discipline.
Curriculum and Instruction

Discipline Coordinator
Omiunota Ukpokodu, (816) 235-2469, ukpokodun@umkc.edu

Curriculum and Instruction is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

Discipline-Specific Admission Requirements
Applicants who designate curriculum and instruction as their primary discipline will be expected to have a Master’s degree; and a GPA of at least 3.5 on a 4.0 scale, covering all post-baccalaureate work completed to date.

If the discipline is selected as the primary discipline and the dissertation research will have a primary orientation in curriculum and instruction, the student must obtain the agreement of a member of the doctoral faculty in curriculum and instruction to serve as research advisor before the student can be admitted.

The applicant must provide the following supplementary documentation:

1. Written recommendations from appropriate professors and practitioners in the field (selected by student).
2. Brief narrative stating research interest
3. GRE score requirement of a combined minimum score of 295 on the verbal and quantitative section and 4.00 on the analytic writing section
4. Sample research or scholarly writing

Suggested Compatible Co-disciplines
Educational Leadership, Policy and Foundations (p. 1260), music education, chemistry, history, mathematics, physics, and public affairs and administration.

Core Program Requirements
All students with curriculum and instruction as primary discipline are required to complete:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC-C&amp;I 5618</td>
<td>Survey Of Research In Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>or EDUC-C&amp;I 5620</td>
<td>Seminars In Theories Related To Curriculum</td>
<td></td>
</tr>
<tr>
<td>EDUC-C&amp;I 5626</td>
<td>Seminar in Multicultural Perspectives In Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-C&amp;I 5571</td>
<td>Cognition &amp; Technology</td>
<td>3</td>
</tr>
<tr>
<td>or EDUC-C&amp;I 5572</td>
<td>Assessing The Role Of Technology In Education</td>
<td></td>
</tr>
</tbody>
</table>

Electives
A minimum of 15 credit hours of electives

Total Credits 24

All students with curriculum and instruction as a co-discipline are required to complete:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
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<td></td>
</tr>
<tr>
<td>EDUC-C&amp;I 5505</td>
<td>Introduction To Curriculum Theory</td>
<td></td>
</tr>
<tr>
<td>EDUC-C&amp;I 5506</td>
<td>Curriculum Design</td>
<td></td>
</tr>
<tr>
<td>EDUC-C&amp;I 5591</td>
<td>Curriculum &amp; Instruction For The 21St Century</td>
<td></td>
</tr>
<tr>
<td>EDUC-C&amp;I 5618</td>
<td>Survey Of Research In Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>or EDUC-C&amp;I 5620</td>
<td>Seminars In Theories Related To Curriculum</td>
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<tr>
<td>EDUC-C&amp;I 5626</td>
<td>Seminar in Multicultural Perspectives In Education</td>
<td>3</td>
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<tr>
<td>EDUC-C&amp;I 5571</td>
<td>Cognition &amp; Technology</td>
<td>3</td>
</tr>
<tr>
<td>or EDUC-C&amp;I 5572</td>
<td>Assessing The Role Of Technology In Education</td>
<td></td>
</tr>
</tbody>
</table>

Electives
A minimum of 3 credit hours of elective

Total Credits

15

All students with curriculum and instruction as primary discipline are required to complete:

<table>
<thead>
<tr>
<th>Code</th>
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</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>EDUC-R&amp;P 5615</td>
<td>Qualitative Research Theory &amp; Design Educational Setting, Part 1</td>
<td></td>
</tr>
<tr>
<td>EDUC-R&amp;P 5555</td>
<td>Statistical Methods II</td>
<td></td>
</tr>
<tr>
<td>EDUC-R&amp;P 5616</td>
<td>Qual Data Collection And Analysis In Educational Settings. Part 2</td>
<td></td>
</tr>
<tr>
<td>or EDUC-R&amp;P 5612</td>
<td>Applied Quantitative Research in Education</td>
<td></td>
</tr>
</tbody>
</table>

A minimum of 12 hours of dissertation

Total Credits

24

1 Students interested in taking advanced coursework in statistics may substitute EDUC-R&P 5605 and EDUC-R&P 5606 (Quantitative Methods I and II) for EDUC-R&P 5555. EDUC-R&P 5605 and EDUC-R&P 5606 must be taken as a sequence (6 credits total).

Students who have not had a previous statistics course at the undergraduate or graduate level must take EDUC-R&P 5505 before beginning research methods coursework. This will not count toward the 12-hour minimum.

Ph.D. study in curriculum and instruction prepares students with diverse academic and professional backgrounds to meet equally diverse career and scholarly goals. Moreover, rather than being a homogeneous field with a relatively uniform approach to Ph.D. study, curriculum and instruction encompasses several separate specialized areas, each with its own requirements and expectations regarding doctoral work. Hence, students accepted for the Interdisciplinary Ph.D. program with curriculum and instruction as their co-discipline may have backgrounds in one of the educational fields represented in the School of Education, in one of the disciplines represented in the College of Arts and Sciences, or in a professional field such as criminology, computer science or law. Students accepted with curriculum and instruction as their coordinating-unit discipline would typically have prior academic training and experience in curriculum and instruction. Advisors would tend to be specialists in reading education, physical education, special education, educational psychology, mathematics education, science education or curriculum and instruction. The doctoral student in curriculum and instruction may be preparing for teaching and research in higher education, for a curricular or supervisory position in a public school district or for work in a government agency, private foundation or an educational training role in business and industry. Consequently, a single set of minimum standards cannot possibly fit all Ph.D. programs for which curriculum and instruction is the primary discipline or co-discipline. Instead, sensitivity to individual student needs and goals, as well as regard for the different approaches to doctoral study represented in the several fields within curriculum and instruction, require flexibility and diversity in program planning.

Within the context described, a minimum of 24 hours in curriculum and instruction is required of students with curriculum and instruction as their coordinating-unit discipline and a minimum of 15 hours in curriculum and instruction is expected of students selecting curriculum and instruction as their co-discipline. In no case will a program be drawn up or approved that contains only coursework previously completed. Additional requirements may be set by the student's doctoral supervisory committee on the basis of the individual's program goals, previous academic preparation and relevant prior experiences.

Requirements for Comprehensive Examinations

The student may obtain discipline-specific information on comprehensive examination guidelines from his or her research advisor.
Economics

Discipline Coordinator
Linwood Tauheed, (816) 235-2543, tauheedl@umkc.edu
Economics is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

Discipline-Specific Admission Requirements
In addition to the general criteria for admission, the criteria for admission to the Interdisciplinary Ph.D. program in economics are:

1. A score of at least 154 in verbal reasoning, a score of at least 154 in quantitative reasoning and at least a 4.0 on the analytical portions of the general Graduate Record Examination.
2. A grade-point average of at least 3.0 (on a 4.0 scale) covering all college work taken prior to the bachelor’s degree, or a grade-point average of at least 3.0 (on a 4.0 scale) covering all post-baccalaureate work completed to date.
3. Recommendations for provisional or full admission by the doctoral faculty review group in at least two participating disciplines.
4. Applicants for whom English is not the native language and have studied less than two years (full time) in a U.S. academic program or a comparable program in an English-speaking country are required to obtain a TOEFL score of at least 550 on the paper-based test or 213 on the computer-based test. In addition, to qualify for full admission status, international students must achieve a score of at least 4.0 on the Test of Written English (TWE) portion of the TOEFL examination. Students admitted provisionally because of the TWE requirement may take a TWE equivalency test through UMKC’s Applied Language Institute once they arrive on campus.
5. Applicants must have at least 18 undergraduate semester credit hours in economics, including intermediate microeconomics and macroeconomics and a course in elementary statistics. In addition, it is strongly recommended that applicants have some of the following courses: econometrics, mathematical economics, history of economic thought, heterodox economics, economic history, calculus and linear algebra. Students with fewer than 18 credit hours will be admitted only on a provisional status.
6. Applicants matriculated into the M.A. economics program at UMKC may apply for admission to the Interdisciplinary Ph.D. program in economics as soon as they have completed 15 credit hours and have earned a grade-point average of 3.25 or better.
7. Applicants who wish to transfer to the UMKC Interdisciplinary Ph.D. program in economics from other institutions must have obtained a grade-point average of at least 3.0 covering all their graduate work. Transfer students must apply for transfer credits toward the Interdisciplinary Ph.D. as soon as possible after completion of a minimum of 12 credits at UMKC with a grade-point average of 3.0 or better. Up to 30 transfer credit hours may be granted. No transfer credit will be granted for any courses not relevant to the Interdisciplinary Ph.D. in Economics or for any course with a GPA of less than 3.0.

The deadline for receipt of completed applications and supporting documentation is Feb. 1 for the fall semester and Sept. 1 for the spring semester.

Alternate Admission Criteria
Applicants who do not fit the above criteria may petition the economics doctoral committee with evidence of scholarly publication, research and recommendations, but the decision rests with the committee.

Qualifying Requirements for Full Admission
At the time admission is offered, provisional students will be notified of any course deficiencies or qualifying requirements to be met for full admission. The faculty will make a decision with regard to full admission based upon the student’s performance in meeting the qualifying requirements.

Suggested Compatible Co-disciplines
Curriculum and instruction, history, public affairs and administration, educational leadership, policy and foundations, and the Social Science Consortium.

Core Program Requirements
For Students with this Discipline as their Coordinating Unit
The Interdisciplinary Ph.D. in economics consists of a minimum of 18 required coursework credit hours in economics— including:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>ECON 5506</td>
<td>Advanced History Of Economic Thought</td>
<td>3</td>
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<tr>
<td>ECON 5551</td>
<td>Advanced Institutional Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON 5601</td>
<td>Colloquium In Advanced Macroeconomics</td>
<td>3</td>
</tr>
</tbody>
</table>
If the student has not taken the prerequisites to ECON 5601, ECON 5602 and ECON 5625, he/she will be required to take ECON 5501, ECON 5502, ECON 5521, and ECON 5525—and additional 12 coursework credit hours (or, a total of 30 hours). All students are strongly urged to take two fields in economics, each consisting of two three-credit hour courses for a total of 12 additional coursework credit hours. These courses will be taken in economics and at least one additional field such as sociology, history, public administration, education, mathematics, political science, geosciences, computer science or others, provided that such fields participate in the doctoral program.

**For Students with this Discipline as a Co-discipline**

Those students taking economics as a co-discipline will take a minimum of 12 hours in economics, at the graduate level, including:

**Comprehensive Examination Guidelines**

Coordinating-discipline students are required to pass a qualifying examination in economics theory—micro, macro and political economy, and in quantitative methods. Students taking field concentrations must pass a comprehensive examination in those fields, or meet the requirement by an alternative means that is accepted by the department.

Co-discipline students must receive grades of "B" or better in ECON 5501 and ECON 5502. In addition, the oral portion of the comprehensive examination will require students to integrate knowledge between topics in economics and the student's coordinating unit.
Discipline Contact
Shirley Marie McCarther, (816) 235-2451, mccarthers@umkc.edu

Educational Leadership, Policy and Foundations is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

Discipline-Specific Admission Requirements

Applicants who designate educational leadership, policy and foundations as their primary discipline will be expected to have a grade-point average of at least 3.0 on a 4.0 scale, covering all college work taken prior to the bachelor’s degree, or a GPA of at least 3.5 on a 4.0 scale, covering all post-baccalaureate work completed to date.

Applications are only reviewed once a year, for admission beginning the next fall term. To be considered, applications must be submitted to the Admissions Office by February 15.

The applicant must provide the following supplementary documentation:

1. Written recommendations from appropriate professors and practitioners in the field (selected by the applicant).
2. An autobiographical sketch. (This should be a brief resume of academic and professional goals and the applicant’s personal, academic and career history as it relates to those goals. It should also include reasons for choosing educational leadership, policy and foundations as a field of study.)
3. Evidence of graduate-level writing ability provided by writing samples, prior scholarly writing or the successful completion of an essay examination.

Applicants are required to provide official GRE test scores. GRE scores will be used by doctoral faculty in the discipline as one of several criteria used to evaluate the strength of the application. No other assessment results will be substituted for the GRE. When evaluating applications, faculty members will take into account evidence in the applications of such factors as demonstrated leadership skills, commitment to education, communication and academic skills, a clear and important research agenda, cultural background, etc. There is no minimum aggregate GRE score required for applications to be considered for educational leadership, policy and foundations. Applicants must meet the GRE requirements for their other discipline(s).

In addition, an applicant, the applicant's advisor or any member of the division may request that the applicant meet with and be interviewed by the division faculty.

Alternate Admission Criteria

International applicants will be considered for admission to the Ph.D. program on the basis of background, experience and educational attainments in their home countries. Exceptions to the general criteria for admission to Interdisciplinary Ph.D. study may be made for students whose potential for success in the doctoral program may not be reflected in the general criteria.

Qualifying Requirements for Full Admission

In some cases, the division may ask that 12 hours of work at UMKC, including an education foundations course, be taken prior to full admission.

Students admitted under alternate criteria will be notified upon acceptance of any coursework deficiencies they must satisfy or other preparation they must undertake prior to full admission.

Suggested Compatible Co-disciplines

Curriculum and instruction, public affairs and administration, history, economics, political science, and the social science consortium.

Core Program Requirements

Students with educational leadership, policy and foundations as a co-discipline will be required to take a minimum of 15 credit hours of core courses. The core curricula will vary, depending on whether students’ research is primarily in educational leadership or the social-philosophical foundations of education and on the types of educational setting upon which they wish to focus. Specific courses will be selected with the advice and consent of the student’s faculty advisor and supervisory committee. The supervisory committee may elect to accept coursework in an educational-specialist program or other post-master's degree program as counting toward the 15-credit-hour requirement.

Students seeking administrative certification for public school positions should check with their advisors to be sure they include all courses currently required in the states in which they wish to become certified.
The amount of required coursework, beyond the minimum 15-credit-hour core requirement, taken by students with educational leadership, policy and foundations as their primary discipline, will depend upon their previous preparation in the discipline, their previous research competencies, their personal career goals and their research interests.

All students with urban leadership and policy studies in education as either the primary discipline or the co-discipline are required to take and complete EDUC-UL 5685, the seminar on problems and issues in education and urban leadership.

**Other Discipline-Specific Special Requirements**

The student, at a minimum, will be required to take and complete 12 hours of coursework that provides extensive preparation in research methodologies relevant to her or his professional goals and intended dissertation project. The student will select specific courses with the advice and consent of her or his faculty advisor and supervisory committee. Typical courses which would satisfy this requirement include (but are not limited to):

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<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>EDUC-R&amp;P 5505</td>
<td>Statistical Methods I</td>
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</tr>
<tr>
<td>EDUC-R&amp;P 5508</td>
<td>Principles And Methods Of Research</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-R&amp;P 5605</td>
<td>Quantitative Analysis I: Regression And Analysis Of Variance</td>
<td>3</td>
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<tr>
<td>EDUC-R&amp;P 5608</td>
<td>Introduction To Graduate Research</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 5591</td>
<td>Archival Methods</td>
<td>3</td>
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<td>HISTORY 5687</td>
<td>Doctoral Research Seminar</td>
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<td>SOCIOL 5510</td>
<td>Sociological Methods I</td>
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<tr>
<td>SOCIOL 5511</td>
<td>Sociological Methods II</td>
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<tr>
<td>EDUC-UL 5601</td>
<td>Research In Education Administration: Qualitative Theory &amp; Design</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-UL 5603</td>
<td>Research In Education Administration: Qualitative Data &amp; Analysis</td>
<td>3</td>
</tr>
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</table>

**Requirements for Comprehensive Examinations**

Students with educational leadership, policy and foundations as the primary discipline must pass a comprehensive examination including both the primary discipline and the co-discipline areas.
Electrical and Computer Engineering

Discipline Coordinator
Masud Chowdhury, (816) 235-2432, m (chaudhryg@umkc.edu) asud@umkc.edu (masud@umkc.edu)
Electrical and Computer Engineering faculty who are members of the doctoral faculty.

Electrical and Computer Engineering is a Ph.D. Discipline with the following five Concentration Areas:

1. Computer, VLSI and Embedded Systems Design
2. Nanotechnology
4. Computer Vision, Multimedia and Machine Learning
5. Power Electronics and Renewable Energy

Notes:

1. Our Ph.D. Programs are administered by the Interdisciplinary Ph.D. Program (http://web2.umkc.edu/catalog/Interdisciplinary_Ph_D__Program.html) of School of Graduate Studies (http://web2.umkc.edu/catalog/School_of_Graduate_Studies_0.html) at UMKC.
2. As part of Interdisciplinary Ph.D. Program (http://web2.umkc.edu/catalog/Interdisciplinary_Ph_D__Program.html) requirement, ECE Ph.D. students must select a related co-discipline from which the students has to take a 3 or 4 courses to strengthen the knowledge in topics broadly related to their research areas.
3. ECE Ph.D. students do not need to select the Co-Discipline during the application process. This has to be done in the first semester after coming to UMKC.
4. The discipline-specific requirements listed here are in addition to the requirements listed in the Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission (http://web2.umkc.edu/catalog/Interdisciplinary_Ph_D__Application_Procedure_and_Minimum_Criteria_for_ADMISSION.html) and the Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements (http://web2.umkc.edu/catalog/Minimum_Interdisciplinary_Ph_D__Academic_Regulations_and_Degree_Requirements.html).

Discipline-Specific Admission Requirements
A student who meets the minimum discipline requirements stated below will be considered for regular admission to the Ph.D. program. A student, who does not meet some of the requirements but shows high potential for advanced-level work, may be considered for provisional admission. Admission also depends on factors such as number of seats available, resources available in the area of student’s interest, the quality of previous work, etc. A student who does not qualifying for admission to the Ph.D. program, may be considered for admission to the M.S. in electrical engineering program. Requirements for admission are similar, whether the applicant is requesting electrical and computer engineering as the primary or co-discipline.

Minimum Recommended Ph.D. Admission Requirements:

1. GPA (Bachelor or equivalent Degree): 3.5 in the scale of 4 (or equivalent)
2. GPA (MS or equivalent Degree if any): 3.5 in the scale of 4 (or equivalent)
3. GRE (Quantitative) minimum score = 85%
4. TOEFL iBT minimum Score = 89 or IELTS minimum score = 6.5
5. Prior Projects or Publications (Preferred)*
6. Internationally Acceptable Accreditation of the Prior Degree awarding Institutes

* Prior research project and/or publication record is not required for admission into ECE Ph.D. program. However, doctoral faculty members give very high value to the students with such backgrounds.

Direct or Expedited Ph.D. Program
It is not required to have an MS or equivalent degree to apply to ECE Ph.D. program. We accept well-qualified and motivated students with a Bachelor degree directly into our Ph.D. program. We actively encourage students in the Direct Ph.D. Program to try to complete the doctoral study within 4 or 5 years after the Bachelor degree. To complete the Ph.D. degree in an expedited timeline, first, the student has to be dedicated and well qualified. Second, the student must make a comprehensive plan at the beginning of the doctoral study to complete all the relevant steps within a strict timeline, which is challenging but not impossible.
Clarification of Minimum Requirements and Decision Process

Academic Preparation

The applicant must have a bachelor and/or a master's degree in electrical and/or computer engineering, electronics, communications engineering or any other field requiring substantial training in at least one of the above fields and in mathematics with a GPA of 3.5 or better, cumulative as well as in the major field; and a GPA of 3.5 or better in all post-baccalaureate or post-master's degree work.

Aptitude for Advanced Work

The student must demonstrate an aptitude for advanced-level work through national/international standardized examinations such as the GRE. The expected performance level is the 85th percentile in the quantitative portion of the GRE examination.

• In rare occasion, ECE Ph.D. Discipline Coordinator exempts GRE requirement for students with outstanding publication or scholarly records in internationally renowned journals, conferences or similar forums.

Proficiency in English

The student must demonstrate his or her proficiency in oral and written communication in English through national/international standardized English examinations such as TOEFL, verbal portion of the GRE, etc. Because of this test, the student may be required to improve his or her oral and written communication in English before enrollment in the courses of the chosen disciplines.

• For students with a North American (USA and Canada) B.S. or M.S. degree the English Proficiency requirement is exempt.

How a Ph.D. Applicant Can Request for the Waiver of any Test Score?

As mentioned above, under special circumstance a Ph.D. applicant can request for the waiver of any test (GRE/TOEFL/IELTS) score. Usually the GRE waiver request is granted for students who have already demonstrated outstanding performance in research or other scholarly activities prior to applying to UMKC for graduate admission. Applicants must talk to the respective Ph.D. Discipline Coordinator before requesting a waiver for the official test score requirements. After talking with the Coordinators, a waiver request can be submitted in writing through the Supplementary Interdisciplinary Ph.D. Application site (iSAP). Choose “Uploads” from the left-hand menu, then “Add files” to upload your waiver request in a PDF format. Choose “Other” for the document type listed in the drop down menu, then click “Start” to add the TOEFL/IELTS/GRE waiver request to your application.

Recommendation Letters

The student must provide at least three recommendation letters from professors from his or her previous institution(s). If the applicant has been out of school for several years, recommendation letters from his or her supervisors (technical) will be acceptable. However, even in this situation, a recommendation letter from his or her last academic institution is highly recommended. A recommendation from a faculty member in the Computer Science Electrical Engineering (CSEE) Department at UMKC must be provided if the student has taken courses from or worked with the CSEE faculty.

Statement of Goals and Objectives

The applicant must provide a 250 to 500 words essay on his/her goals and objectives of pursuing the Ph.D. in the chosen fields.

Prior Research Projects and Publications (Preferred but not Required)

The applicant is encouraged to submit evidence of prior research projects and/or publications (if any).

Admission at an Advanced Level

An applicant who has already completed significant graduate coursework (15 or more semester hours of post-master’s work or 30 or more hours of post-baccalaureate’s work) toward a Ph.D. at another institution must provide reasons for changing institutions. The applicant must also provide a letter of endorsement from a doctoral faculty member in electrical and computer engineering indicating their willingness to be the student's research adviser.

Ph.D. Admission Decision Process

Ph.D. admission is primarily based on individual doctoral faculty member’s needs and preferences. The role of ECE Ph.D. Discipline Coordinator is to ensure that Ph.D. applicants satisfy the minimum requirements (GPA, GRE, TOEFL/IELTS, reputation of prior degree awarding institutes and other scholarly achievements). If the requirements are satisfied and a doctoral faculty member accepts the new applicant only then the Ph.D. Coordinator takes a positive decision about a particular applicant. In rare occasion, we bring exceptionally well-qualified students without the acceptance from a doctoral faculty.

Communication with our Doctoral Faculty Members

In addition to reviewing the academic credentials of a new Ph.D. applicant, many of our faculty members prefer interviewing the student before making any decision. Therefore, we strongly advise new Ph.D. applicants to contact our doctoral faculty members in the areas of their research interests before or after starting the application process. However, it is not required that every Ph.D. applicant must contact a relevant doctoral faculty member prior to the application. Whenever we receive a new Ph.D. application we share the information with all ECE doctoral faculty members for their consideration.
Qualifying Requirements for Full Admission

Prerequisite Knowledge

A Ph.D. student selecting Electrical and Computer Engineering (ECE) as the primary (coordinating) Ph.D. discipline is expected to have the level of preparation represented by a four-year undergraduate degree in electrical/computer engineering. The applicant may have received a bachelor’s degree or a master’s degree in computer science, computer engineering, electrical engineering or electronics, or any other related field with substantial training in mathematics.

Selection of a Co-Discipline and Suggested Compatible Co-Disciplines

To broaden the knowledge of the Ph.D. students UMKC Interdisciplinary Ph.D. program requires each student to select a co-discipline closely related to the primary discipline. The following are suggested compatible co-disciplines for ECE students: Computer Science (CS), Telecommunication and Computer Networking (TCN), Mathematics, Physics, and Engineering (Civil and Mechanical focus). A co-discipline outside of this list may be considered only in exceptional cases. These co-disciplines require 3 or 4 courses to be taken by the ECE Ph.D. students to fulfill the co-discipline requirements.

Notes:

- ECE Ph.D. students do not need to apply to a Co-Discipline at the time of admission.
- ECE Ph.D. students have to select a co-discipline in the first semester after coming to UMKC.
- ECE Ph.D. students are advised to consult their primary (ECE) adviser to select an appropriate co-discipline.
- ECE Ph.D. students can change their co-discipline any time before the comprehensive exam.

Transfer of Course Credit

New Ph.D. students with some prior graduate level course works from another university can apply to transfer up to 6 credit hours in each discipline (primary and co-discipline).

Alternate Admission Criteria

An applicant not meeting the minimum admission requirements, or not having sufficient academic preparation (stated above under prerequisite knowledge) for advanced work in the chosen discipline(s), may be considered for provisional admission by the CSEE Departmental Ph.D. committee if the committee sees high potential for advanced work from the rest of the applicant’s credentials. Evidence of high potential might be pertinent work experience, published papers or extremely high achievements in related areas. A student not having an undergraduate degree in electrical and/or computer engineering may be admitted provisionally if the admission committee determines that the student has a strong aptitude for research and is willing to take prerequisite courses as determined by the admission committee based on the student’s academic record.

Application for an MS Degree while Enrolled in ECE Ph.D. Program

ECE Ph.D. students may apply to receive an MS degree upon passing the qualifying and comprehensive exams provided that the coursework required for MS degree under course only option is completed. This is a very good option for students in ECE Direct Ph.D. Program. However, this is subject to primary Ph.D. supervisor’s approval.

Note:

- If an ECE Ph.D. student fails to pass the Qualifying Exam in two attempts or cannot successfully complete the Comprehensive Exam, the student will not be allowed to apply for transfer to the MS program or apply to receive an MS degree even if the coursework required for MS degree under course-only option is completed. Please consult your ECE Ph.D. supervisor and/or ECE Ph.D. Discipline Coordinator for details.

Core Program Requirements

The amount of work required for the Ph.D. depends on the student’s level of preparation. For example, a student entering the Ph.D. program after earning a bachelor’s degree may expect to do significantly more work compared to a student who enters after earning a master’s degree.

Electrical and Computer Engineering as a Co-Discipline

- Students who choose ECE as a co-discipline need to take 3 ECE graduate courses (9 credit hours).
- Students who choose ECE as a co-discipline do not need to take the ECE Ph.D. Qualifying Exam.
CS, TCN, Engineering and Physics Ph.D. students are automatically eligible for ECE Co-Discipline.

Fulltime Status and Doctoral Residency Requirement

US Domestic students can enroll into any number of credit hours per semester during the regular academic year (Fall and Spring). According to US Federal Law, international students are usually required to enroll in 9 credit hours per semester during the regular academic year (Fall and Spring) to maintain fulltime (visa) status. However, for international graduate (Ph.D. and MS) students with 50% FTE (20 hours per week) appointments as Graduate Research/Teaching Assistants the requirement is 6 credit hours of enrolment per semester for full time equivalence. Enrolment is not required in Summer.

Interdisciplinary Ph.D. students must satisfy the doctoral residency requirement by satisfactory completion of at least 18 credits in no more than 24 consecutive months. When satisfying the residency requirement, all Interdisciplinary Ph.D. students are subject to the following restrictions:

1. The doctoral residency requirement must be satisfied no later than the end of the semester in which the student completes his or her comprehensive examinations.
2. Students must achieve a cumulative graduate grade-point average of at least 3.0 in all courses counted toward satisfying the residency requirement.
3. Dissertation research credits (696 to 699) may not be counted toward satisfying the doctoral residency requirement.

Financial Aid

Various forms of financial aid (such as graduate research assistantships, graduate teaching assistantships, graduate fellowships) are available through the Computer Science and Electrical Engineering Department and the School of Graduate Studies. Contact the discipline coordinator for more information.

Most of our Ph.D. students are funded through Graduate Research Assistantship (GRA) and/or Graduate Teaching Assistantship (GTA). GRA support is provided by individual doctoral faculty members from their research grants. GTA support comes from Department Chair’s instructional fund. However, the GTA support is also provided based on the recommendation of the Ph.D. adviser. Department Chair normally honors the requests for GTA support if there are available GTA slots. Therefore, every Ph.D. student must have a faculty adviser to get funding in the form of GRA or GTA. Once a Ph.D. student is admitted we (the Department Chair and the doctoral students) will try our best to provide funding to the student throughout the Ph.D. study. However, the applicants must keep in mind that the number of funding slots (GRA and GTA) for the Ph.D. students are not unlimited. The supports are provided based on respective faculty adviser’s recommendations and Department Chair’s needs. The awarding of GRA and GTA funding is a competitive process. The students are required to maintain high academic standing and demonstrate strong research performance to get continuous support throughout the Ph.D. study. Our Department’s policy is to provide support to as many Ph.D. students as possible.

Additionally, UMKC School of Graduate Studies provide many different types of fellowships, awards and scholarships to qualified graduate students through a competitive selection process. Please visit the website of the School of Graduate Studies for further details.

Note:

• If a student receives financial aid in the form of GTA/GRA from the CSEE Department or its doctoral faculty members after the full admission and enrolment into ECE Ph.D. program, the student must complete the doctoral study. If a funded Ph.D. student decides to leave the program at any stage before the completion no terminal MS or equivalent degree will be awarded.

Monthly Stipend for Ph.D. Students with GRA/GTA Appointments

Ph.D. students with 50% FTE (20 hours per week) appointments as GRA/GTA will receive a stipend of around $6000 (subject to availability of funds) per semester during the Fall and Spring semesters. This stipend will be paid in 4 or 5 monthly installments. All GRA/GTA appointments (if awarded) are for one regular academic year (Fall and Spring) for the new students. Beyond the first year, the GRA/GTA supports are subject to availability and performance. There is no guaranteed financial support for the Summer semester.

Other Fees and Health Insurance

Students are responsible for some additional fees, health insurance, books and supplies, and living cost.

Timeline and Steps Toward the Completion of ECE Ph.D. Degree

New Ph.D. students are strongly advised to make a clear plan in consultation with the ECE Ph.D. adviser as soon as they start their doctoral study to complete the following steps within the required time line:

1. Annual Evaluation: Starting from the second year, every year each Ph.D. student is required to complete an annual evaluation form and forward it to the primary and co-discipline supervisors, who will submit it to the School of Graduate Studies along with the evaluation of the student’s yearly progresses. Link to Graduate School Forms. (http://sgs.umkc.edu/forms) Due Date for Annual Evaluation: 30 September.
2. **Ph.D. Qualifying Examination:** Students taking an ECE Ph.D. Discipline as the primary (coordinating) unit should make the first attempt to pass the qualifying exam during the first three (3) regular semesters after fully admitted to the doctoral study at UMKC. The student must pass both parts of the qualifying exam within four (4) regular semesters. Summer term in not counted.

3. **Plan of Study:** The Ph.D. Plan of Study from, signed by the student, members of the student’s proposed Supervisory Committee, and the Academic Administrators in the student’s disciplines, must be filed with the School of Graduate Studies no later than the end of the second year (24 months) after the student has been fully admitted. The Interdisciplinary Ph.D. Plan of Study may be filed prior to that time. Link to Graduate School Forms. (http://sgs.umkc.edu/forms)

4. **Formation of Ph.D. Supervisory Committee:** The Supervisory Committee shall consist of at least five members composed of one doctoral faculty from each of the primary and co-disciplines, with a maximum of three from any one discipline. Regarding the formation of the committee the student should consult the primary (ECE) Ph.D. supervisor, who will be the Chair of the Committee. Names and signatures of the committee members have to be submitted with the Plan of Study.

5. **Fulfilling Ph.D. Residency Requirement:** Ph.D. students must satisfy the doctoral residency requirement.

6. **Comprehensive Examination:** The format and general requirements for the comprehensive exam vary according to the Ph.D. discipline.

ECE Ph.D. discipline usually requires the students to make a formal presentation on the background study, current progresses and future plans regarding the selected research problems for doctoral study. ECE students can take the comprehensive exam any time after passing ECE Ph.D. Qualifying Exam and the approval of the Plan of Study by the School of Graduate Studies.

1. **Interdisciplinary Ph.D. Research Proposal:** After the completion of the Comprehensive Exam each Ph.D. student must submit a written Research Proposal to the School of Graduate Studies. Link to Graduate School Forms. (http://sgs.umkc.edu/forms)

2. **Doctoral Dissertation:** The format and general requirements for the Doctoral Dissertation exam vary according to the discipline. ECE Ph.D. discipline requires the students to make a formal presentation on the outcomes of the doctoral research in front of the committee members. **ECE comprehensive exam and dissertation defense presentations are open to all students and faculty members.** In addition, it is recommended that students submit a draft copy of the thesis to the committee members prior to the presentation. The defense of the dissertation is approved when a majority of the supervisory committee members recommend approval and sign the Report of Results of Final Dissertation Examination form. Students can schedule **Dissertation Defense six months after the comprehensive exam.** Link to Graduate School Forms. (http://sgs.umkc.edu/forms)

3. **Final Thesis Submission:** After the successful completion of the Dissertation Defense, Ph.D. students must formally submit their Ph.D. thesis according to the format and instructions of the School of Graduate Studies. Link to Graduate School Forms. (http://sgs.umkc.edu/forms)

Notes:

- Ph.D. students are allowed to apply for extensions/exceptions/changes under exceptional circumstances.
- Part-time Ph.D. students may apply for flexibility of the timeline regarding the above-mentioned steps.
- Students are advised to regularly check the updates and modifications by the Schools of Graduate Studies.

**Qualifying Examination Guidelines**

The Qualifying Exam is a written test administered by the ECE Ph.D. committee. The test questions are from a set of fundamental courses in electrical and computer engineering. The ECE Ph.D. discipline offers the qualifying exam twice a year, once in the spring semester and once in the fall semester. Students taking an ECE Ph.D. Discipline as the primary (coordinating) unit should take the qualifying exam during the first 18 months after fully admitted. In case a student failed in his/her first attempt, and then he/she should take the failed part of exam again in the next consecutive term. Students who fail both attempts will be disqualified for the Ph.D. admission in ECE. **The ECE Qualifying Exam is only for students whose primary Ph.D. discipline in ECE. Students from other primary disciplines who select ECE as a co-discipline will not be required to take the ECE Qualifying Exam.**

**Qualifying Exam has two parts:**

1) Compulsory Part (Part-I)

2) Concentration Area Based Part (Part-II)

**Part-I: Compulsory Part of Ph.D. Qualifying Exam (Math and Circuit Theory):** (Open Notes)

1. Part I of the exam will be held twice every year on the third Friday of April and November.
2. It is compulsory for every student taking the qualifying exam to pass Part I, which will be based on E&C-ENG 276 (Circuit Theory I) and E&C-ENG 341R (Applied Engineering Analysis II).
3. Students are required to attempt only six questions out of ten.
4. Students are required to attempt at least two questions from each E&C-ENGR 276 and E&C-ENGR 341R. Total Time = 3 hours
Part-II: Concentration Area Based Part of the Ph.D. Qualifying Exam: (Open Notes)

1. Part II of the exam will be held twice every year on the Monday following the Part-I of the exam.
2. Students will be tested out from one of the concentration areas selected by the student.
3. Faculty in charge of the courses belonging to that particular concentration area will be asked to submit three questions per course and submit them to the ECE Ph.D. coordinator.
4. From the selected concentration area the students will be required to select three courses.
5. The students will be required to attempt only six questions out of nine questions from the selected 3 courses.
6. Students are required to attempt at least one question from each of the three courses selected for that concentration area. Total Time = 3 hours

ECE Ph.D. Concentration Areas for Qualifying Exam (Part II):

1. Computer, VLSI and Embedded Systems Design
2. Nanotechnology
4. Computer Vision, Multimedia and Machine Learning
5. Power Electronics and Renewable Energy

ECE Ph.D. Qualifying Exam Dates:

1. Spring Semester Exam: Part I: Third Friday of April and Part II: Monday following the Part I Exam
2. Fall Semester Exam: Part I: Third Friday of November and Part II: Monday following the Part I Exam

A Snapshot of Qualifying Exam Guidelines:

1. Please consult your Ph.D. Adviser about area selection and timing of your Ph.D. Qualifying Exam.
2. Clarification of Open Notes Policy: Students are allowed to bring 2-page doubled-sided written notes per subject during the exam. Students are not allowed to bring any textbook and other printed materials. Electronic copies of the notes are not allowed.

Restrictions on Electronic Devices: Scientific Calculators are allowed during the both parts of the examination. However laptop, smartphone, tablet, PDA or any other internet connected device will be absolutely prohibited during the both parts of the qualifying examination.
Engineering

Discipline Coordinator
Ceki Halmen, (816) 235-1286, halmenc@umkc.edu

Engineering is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

Discipline-Specific Admission Requirements
A student who satisfies the general requirements for admission and also meets the minimum discipline requirements stated below will be considered for regular admission to the Ph.D. program with engineering as a discipline. A student who does not meet some of the requirements but shows high potential for advanced-level work may be considered for provisional admission. Admission also depends on factors such as number of seats available, resources available in the area of the student’s interest, the quality of previous work, etc. Requirements for admission are the same whether the applicant is requesting engineering as the primary discipline or the co-discipline.

1. The applicant must have a bachelor’s degree or a master’s degree in civil or mechanical engineering or related disciplines with a grade-point average of at least 3.0 on a 4.0 scale in the last 60 hours of undergraduate engineering coursework. In addition, a GPA of 3.5 or better in all post-baccalaureate coursework is required. Pre-program requirements may be specified in case the bachelor’s degree is in a discipline different than that to which the candidate is applying.

2. The student must demonstrate an aptitude for advanced-level work by obtaining a cumulative GRE score of at least 302 (verbal + quantitative) and a minimum of 158 on the quantitative portion of the examination. GRE requirements may be waived for applicants with a baccalaureate from an ABET accredited program who have passed the fundamentals of Engineering (FE) exam.

3. TOEFL scores are required for international students without prior U.S. degrees. The minimum required score is 80. TOEFL requirements may be waived for applicants with a baccalaureate from an ABET accredited program.

4. The student must provide at least three recommendation letters from professors at previous institutions or mentors at work.

5. The applicant must provide a 500- to 750-word essay on his or her goals and objectives in pursuing the Ph.D. in the chosen fields.

6. Provisional admission may be granted if the minimum GPA and GRE requirements are not met, but other indicators promise the student’s success in the program. To be fully admitted to the Interdisciplinary Ph.D. program, the provisionally admitted student must obtain a grade of B or better in the first nine hours of coursework and submit a satisfactory GRE score within their first year of the program.

Suggested Compatible Co-disciplines
Chemistry, computer science, electrical and computer engineering, geosciences, mathematics, molecular biology and biochemistry, oral biology, physics, and telecommunication and computer networking.

Core Program Requirements
Engineering as Primary Discipline
A minimum of 60 credit hours of approved graduate coursework (300-level or higher) beyond the baccalaureate, including dissertation research hours (CIV-ENGR 5699, E&C-ENGR 5699 or MEC-ENGR 5699), are required. Of these, at least two-thirds must be at the 5500/5600-level. The graduate coursework may include courses taken at UMKC or other institutions and approved for transfer by the student’s supervisory committee. A minimum of 12 credit hours of dissertation research (CIV-ENGR 5699, E&C-ENGR 5699 or MEC-ENGR 5699) is required.

Example Minimum Requirements Beyond Master of Science Degree

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<th>Title</th>
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<tr>
<td></td>
<td>Co-discipline (e.g. Mathematics or Physics)</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Dissertation research</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Total beyond M.S. degree (minimum of 30 hours)</td>
<td>33</td>
</tr>
</tbody>
</table>

Engineering as Co-discipline
A student electing engineering as co-discipline will be required to complete a minimum of 9 credit hours in engineering graduate courses, of which at least six hours must be at the 5500/5600-level.

Qualifying Examination Guidelines
A qualifying exam will be completed by the Ph.D. student as a core program requirement. The exam will be administered by the graduate committee in conjunction with the research advisor in the first year of study. The exam will consist of two parts: (1) a written exam based on core areas in civil/mechanical engineering OR an engineering problem related to the student’s emphasis area AND, (2) an oral defense of the exam and other discipline...
fundamentals or the problem solution. The department will keep a record of whether the student has passed or failed the exam. The student may request one more attempt to retake the exam in the event of a failed grade. The student will be recommended for termination from the doctoral program after two failed attempts.

**Comprehensive Examination Guidelines**

To advance to degree candidacy, an Interdisciplinary Ph.D. student is required to pass a comprehensive examination administered by the student's research advisor and supervisory committee. This comprehensive exam will consist of two parts. Part One will be a written exam over the student's Ph.D. coursework or the submission of a grant proposal to the committee. Part Two will be an oral defense of the student's dissertation research proposal.
English

Discipline Coordinator
Joan Dean, (816) 235-2555, deanj@umkc.edu

English is a discipline in the Interdisciplinary Ph.D. Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

Discipline-Specific Admission Requirements

For new students selecting English as a discipline, admission will normally be for the fall term. Application dossiers must be complete by Jan. 15. Because the university closes over the winter holidays and classes may not resume until after Martin Luther King Day, prospective students should initiate contact with the department’s Discipline Coordinator and faculty in November.

Applicants who select English as their primary discipline will be expected to have the M.A. in English or equivalent coursework as determined by the English department doctoral committee. Applicants who select English as a co-discipline should have completed a master’s degree or equivalent coursework. In most cases, students will be expected to have completed, with a grade of B or better, 12 hours of English courses at the 300- or 400-level (or appropriate equivalents) that are approved by the English department doctoral committee.

An applicant who plans to pursue a degree with English as a discipline is required to provide the English department doctoral committee with the names of three individuals who are academically or professionally qualified to assess the applicant’s ability to pursue doctoral work. References submitted to the School of Graduate Studies for admission to doctoral studies may be judged by the English department doctoral committee as sufficient evaluation, but the department reserves the right to request further information.

Applicants also are required to submit samples of written work to the English department doctoral committee. The applicant must submit a sample of academic prose with a research component that demonstrates the applicant’s ability to undertake graduate course work in English and to engage in a scholarly conversation, preferably on a subject closely related to the applicant’s proposed doctoral studies. The applicant’s narrative statement, submitted with the application form, should provide a well-focused justification of the proposed course of study that is compatible with the department’s resources. Applicants should consult with the Interdisciplinary Ph.D. coordinator in English for advice on the preparation of the narrative. Applicants may also seek advice on the narrative from doctoral committee members with special expertise in the applicant’s chosen fields of study.

Applications will be evaluated by a committee of the doctoral faculty in the English department; the committee will recommend to the department chair and dean of the School of Graduate Studies whether the applicant should be admitted. These English-specific requirements apply to all applicants intending to have English as primary discipline or co-discipline.

Students who expect to write a dissertation that draws primarily on research in English must apply for English as their primary discipline.

In cases where an applicant has not yet met the foreign language requirement or GRE scores are still pending, provisional admission may be recommended.

Alternate Admission Criteria

The department’s required GRE score is independent of, and takes precedence over, the School of Graduate Studies’ minimum of 1500 points.

Qualifying Requirements for Full Admission

In addition to the below criteria, the committee considers the applicant’s writing sample, letters of recommendation, personal statement, and the overall viability of the applicant’s proposed dissertation project.

English as Primary Discipline

GRE scores
Either (1) a general verbal score in the 60th percentile or better; or (2) a score in the 60th percentile or better in the English subject examination.

Relevant Foreign Language Skills

Applicants must demonstrate facility in a foreign language relevant to study in English. The language requirement will ordinarily be met by two years of satisfactory college-level language study. Students may be required to demonstrate additional language skills to undertake or complete their dissertations.

English as a Co-discipline

GRE scores
A general verbal score in the 60th percentile or better.
Foreign Language Skills
Demonstrate foreign language competence in the same manner as students with English as the primary discipline.

Suggested Compatible Co-disciplines
Curriculum and instruction and history

Core Program Requirements
All students who list English as a discipline, whether as primary discipline or co-discipline, are required to take ENGLISH 5500 or its equivalent and to include two English doctoral faculty members on their committees. Students enrolling with English as their primary discipline are required to take a total of eighteen hours in English, including ENGLISH 5547 and ENGLISH 5500. Students enrolling with English as their co-discipline are required to take a minimum of twelve hours in English, including English 5500 and one of the following: ENGLISH 5519, ENGLISH 5547, ENGLISH 5545, or HMNTY 5510.

Students admitted with English as the primary discipline are subject to the following requirements:

• Only English courses numbered 400 or above will be accepted for the Ph.D. degree. Courses taken in other disciplines may be taken at the 300-level or above.
• No grade below B in any course will be accepted to apply toward the Ph.D. degree.
• In most cases, no more than one-third of coursework in English, exclusive of credit for dissertation work, that is classified as independent study will be accepted for the Ph.D. degree.
• Students will be expected to complete the majority of their coursework at UMKC.
• In certain cases, exceptions to these requirements may be allowed.

Other Discipline-Specific Special Requirements
For foreign language requirement, see "Qualifying Requirements for Full Admission" for this discipline.

Comprehensive Examination Guidelines
The examinations must be taken within a year of completing coursework. Prior to taking exams, students must have a supervisory committee, an approved plan of study on file with the School of Graduate Studies and have completed all required coursework. See Comprehensive Examination guidelines (http://catalog.umkc.edu/colleges-schools/graduate-studies/minimum-interdisciplinary-phd-academic-regulations-degree-requirements/#Comprehensive%20Examination) from the School of Graduate Studies for full details.

At least six months before taking comprehensive exams, the student will submit a tentative reading lists of primary and critical works for all examinations. The supervisory committee will then meet to review the proposed reading lists and address any oversights or imbalances.

PRIMARY DISCIPLINE ENGLISH
Before advancing to Ph.D. candidacy, students whose primary discipline is English will take a series of examinations: general examinations over two designated areas in English studies; the examination required by the co-discipline; and an oral interdisciplinary subject examination.

1. The General Area Examination
Areas for the general area examination will be designated at the time of the submission of the program of study. These may be changed only with the consent of the supervisory committee. The examination is designed to test the breadth of the candidate's knowledge in two areas of English studies whether periods of literary history (e.g., British 19th century, American literature from 1865, British and American literature since 1945) or other areas of expertise (e.g., linguistics, history of the language, rhetoric, genre studies, literacy studies). For students whose primary discipline is English, the examining committee for the general area examination must include at least two members of the graduate faculty in English. The reading lists, which are subject to the approval of the examining committee, should reflect interdisciplinarity. The general area examination consists of two parts, each receiving equal weight. The format of these examinations, designed in consultation with the student to reflect a sustained preparation (typically three to six months), will include a written component (e.g., a three-four hour sitting or a 72-hour “take-home” period for each area).

2. Co-Disciplinary Examinations
Students whose primary discipline is English will fulfill examination requirements of their co-discipline.

3. The oral interdisciplinary subject examination
The oral interdisciplinary subject examination will examine the student’s command of methodology and current scholarship as well as primary sources and standard scholarly works in the field and assess the student’s ability to integrate content, theory, and/or methods in the discipline of English and the student’s co-discipline(s). At least two weeks before the oral interdisciplinary subject examination, the student will submit a dissertation prospectus detailing chapters, methodology, and bibliography subject to the approval of the supervisory committee. The exam is typically administered in a single two-hour sitting.
For students whose co-discipline is English, an examination covering one of the areas described above in "The General Area Examination" will be designed in consultation with the coordinating discipline.

**Doctoral Dissertation Requirement**

The dissertation defense will be a one and a half hour discussion of the dissertation that includes all members of the Supervisory Committee. The majority of the committee must vote for approval of the dissertation in order for the student to graduate. See the School of Graduate Studies guidelines for further procedures and deadlines.
Entrepreneurship

Discipline Coordinator
Brian Anderson (816) 235-2316, andersonbri@umkc.edu (andersonbri@umkc.edu)

Entrepreneurship and Innovation is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

Program Intent
The Department of Global Entrepreneurship and Innovation (GEI) participates in the Interdisciplinary Ph.D. program only as a co-discipline, and meets the needs of students interested in supplementing his or her primary research interests with a course of study in entrepreneurship and innovation. Students interested in specifically focusing on entrepreneurship and innovation, with the intention of pursuing a career as a tenure-track faculty member in a business school, should consider the GEI full-time Ph.D. program offered through the Bloch School of Management.

Suggested Primary Disciplines
Economics, mathematics, engineering, computer science, physics, and public affairs & administration.

Program Requirements
Students who select entrepreneurship as a co-discipline must complete four doctoral seminars (12 credits) offered by GEI doctoral faculty. The Ph.D. Program Director must approve the chosen courses, consistent with the student’s research interests and background.

Comprehensive Examination
Students will complete an Entrepreneurship and Innovation comprehensive examination determined by the GEI faculty at the completion of the four required courses.

Dissertation
Students will work with the primary discipline on the extent to which the entrepreneurship and innovation literature informs the dissertation’s central research question. At least one dissertation committee member should be a member of the GEI doctoral faculty, but may not Chair the committee.

Annual Evaluation
Students complete Annual Evaluation through their primary disciplines. The GEI Ph.D. Program Director provides input on this evaluation as it pertains to the student’s coursework or related dissertation work in entrepreneurship and innovation.
Geosciences

Discipline Coordinator
James Murowchick, (816) 235-2979, murowchickj@umkc.edu (leej@umkc.edu)
Geosciences faculty who are members of the doctoral faculty.

Geosciences is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

Discipline-Specific Admission Requirements
Specific admission requirements defined by the faculty of the Department of Geosciences follow the guidelines established by the School of Graduate Studies. Typically, a student would be expected to hold an undergraduate or master’s degree in environmental sciences, geology, geography or a closely-related field. Opportunities within the department range from the physical sciences to the humanities. Because of the wide range of faculty expertise, and in keeping with the general spirit of the entire interdisciplinary program, the faculty of the Department of Geosciences has deliberately chosen to establish broad guidelines for admission of Interdisciplinary Ph.D. students. All prospective graduate students must attain a GPA of 3.0 or above, on a 4.0 scale, in all university work prior to admission. Three letters of recommendation from professors as well as a proposal from the prospective student detailing goals and expectations are needed for an evaluation of the application. Students are expected to have an advisor at the time of admission.

Non-native English-speaking applicants seeking geosciences as a primary discipline must demonstrate proficiency in English. This requirement can be satisfied by obtaining English proficiency certification from UMKC.

Suggested Compatible Co-disciplines
Faculty members in the Department of Geosciences conduct research in applied geophysics, atmospheric sciences, engineering geology, and environmental geology, stratigraphy, geochemistry, GIS, mineral deposits, neotectonics, geoarcheology, geomorphology, Quaternary environments, cultural and historical geography (Europe, Latin America, the Caribbean and West Africa) and historical cartography. Suitable co-disciplines for the Interdisciplinary Ph.D. program are practically unlimited (see http://cas.umkc.edu/geosciences/phd.asp for possibilities). Consultation with the principal graduate advisors for geology and geography would be a good way for the student to explore the possibilities. Previous and existing geology students have designated co-disciplines of chemistry, curriculum and instruction, engineering, computer science, and physics. Previous geography Ph.D. students have designated the social sciences consortium (p. 1304) and curriculum and instruction as a co-discipline. Other excellent possibilities would include political science, economics, and history.

Core Program Requirements
Specific core program requirements follow the guidelines established by the School of Graduate Studies and are otherwise defined by the student’s supervisory committee in consultation with each individual student.

Other Discipline-Specific Special Requirements
While there is no set minimum number of hours for all students, at least 50 percent of the course credit hours for students who select geosciences as their primary discipline must be taken in the Department of Geosciences. Students who have selected geosciences as a primary discipline or a co-discipline are expected to take no less than three courses from the Department of Geosciences as determined by their supervisory committee. Other special requirements are defined by the student’s supervisory committee in individual consultation with each student.

Requirements for Comprehensive Examinations
Comprehensive examinations of all Ph.D. students who select the Department of Geosciences as the primary discipline will contain both written and oral components and may include questions from each of the co-disciplines and from related fields as determined by the student’s examining committee. The examining committee consists of the student’s supervisory committee and others who may be appointed by the dean of the School of Graduate Studies.

Interdisciplinary Work
The faculty of the Department of Geosciences are committed to an interdisciplinary approach and expect that all Ph.D. students, whether enrolled in the primary or the co-disciplinary category, will complete courses and conduct research with this principle in mind.
History

Discipline Coordinator
Lynda Payne, (816) 235-5704 x5, paynel@umkc.edu
Matthew Osborn, (816) 235-5704 x4, osbornmw@umkc.edu

History faculty who are members of the doctoral faculty.

History is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements. Please refer to the UMKC History Department website for up-to-date information on the Interdisciplinary Ph.D. program in History.

Discipline-Specific Admission Requirements

Except in unusual circumstances, students who select History as a discipline in the Interdisciplinary Ph.D. program must begin their work during the fall term. Applications must be received by the School of Graduate Studies no later than January 15. The doctoral faculty of the Department of History will review applications and make their recommendations for admission by the end of February. Applications that are incomplete as of January 15, and completed applications submitted after this deadline, may not be considered until the following year.

Applicants who choose History as their primary discipline, or applicants whose coursework in History will comprise at least 50 percent of the Ph.D. plan of study, must meet the criteria for admission specified by the School of Graduate Studies. In addition, they must:

1. Possess a master's degree in History or its equivalent.
2. Have earned a GPA of 3.5 on a 4.0 scale in graduate courses.

Students who choose History as a co-discipline and whose coursework in History will constitute less than 50 percent of the Ph.D. plan of study must meet the criteria for admission specified by the School of Graduate Studies. In addition, they must fulfill other entrance requirements specified by the doctoral faculty of the Department of History.

1) Co-discipline applicants who have a background in History will be considered as candidates for full admission.
2) Co-discipline applicants who have little or no background in History will normally be considered only as candidates for provisional admission. These applicants, if provisionally admitted, will be required to take a certain number of content courses at either the undergraduate or graduate level, to be determined by the student's prospective mentor, and maintain a B+ average before being considered for full admission.

All applicants for admission must submit in addition to the requirements specified by the School of Graduate Studies:

1. A sample of written work.
2. A brief statement of academic and professional goals.
3. A 1,000-word essay that specifies a research topic, demonstrates its interdisciplinary nature and shows how historical methods and approaches would be utilized.

Primary and Co-discipline applicants granted provisional admission will receive notification of deficiencies and of the conditions that must be met before full admission can be considered.

The doctoral faculty of the Department of History, in consultation with the History faculty as a whole, makes recommendations to the dean of the School of Graduate Studies on each application for admission. These recommendations reflect the majority vote of the doctoral faculty.

Applicants are advised that meeting the criteria of the School of Graduate Studies and the Department of History does not automatically result in admission to the Interdisciplinary Ph.D. program. When making recommendations to the School of Graduate Studies, the History faculty considers other factors as well, particularly the availability of faculty qualified to work in the applicant’s area of interest and the availability of library resources and research materials.

Alternate Admission Criteria

In exceptional cases, candidates who do not meet either the School of Graduate Studies’ or the History Department’s minimum requirements for admission may be admitted under alternate criteria. The doctoral faculty of the department have adopted the following alternate criteria, one or more of which will be used to assess the applicant’s ability: satisfactory performance in 5500- or above-level classes taken in the department’s master’s degree program; positive, written recommendations of our faculty willing to work with the applicant who have evaluated his or her previous work; satisfactory completion of specified courses in the department before consideration or reconsideration of a candidate’s application; publications or comparable professional achievements related to the study of History.
The Plan of Study

If full admission is granted, the student who chooses History as a discipline must satisfy the residency requirements of the School of Graduate Studies, and must fulfill the course requirements of the Ph.D. plan of study as prepared by the student and his or her advisor(s) and approved by the Interdisciplinary Ph.D. Executive Committee.

A student whose primary discipline is History will be required to list at least 18 hours of graduate-level history courses (exclusive of dissertation credits) on the plan of study. These will include: 3 hours of HISTORY 5581GR (How To History I) if this course or its equivalent has not been taken before; 3 hours of HISTORY 5582GR (How To History II); 3 graduate colloquia; and at least one graduate-level research seminar. The remainder of the program must be in courses numbered 5500 or above.

Students for whom History is a co-discipline will be required to take, at the minimum, five core courses: HISTORY 5581GR (How To History I); HISTORY 5582GR (How To History II); two graduate colloquia; and one graduate-level research seminar. In exceptional or unusual circumstances, some of these hours may be waived upon petition to the student’s supervisory committee.

Any student who switches disciplines in the course of his or her graduate career, either adding history as the primary or co-discipline, or changing History from the co-discipline to the primary discipline, must fulfill all of the requisite doctoral requirements in History for that level (e.g., number of course hours, distribution requirements, exams).

Requirements for Comprehensive Examinations

The School of Graduate Studies guidelines for the comprehensive examination can be found here.

The History Department requires that the comprehensive examination of a student listing History as a discipline include both a written and an oral component. The History members of the supervisory Committee will determine the structure and duration of the History component of the comprehensive exam.

For students with History as the Primary discipline, there is a list of Doctoral Fields appended below. The written comprehensives will consist of two examinations, the first from a Chronological/National field; the second from a Topical/Interdisciplinary field.

For Co-discipline students, the written comprehensives will consist of questions drawn from one of the Chronological/National fields or one of the Topical/Interdisciplinary fields appended below.

For both primary and co-discipline students, it is assumed that each examination will include a historiographical component.

In the oral examination conducted by the supervisory committee, both primary and co-discipline students will be expected to answer questions of an interdisciplinary nature.

A student with History as either a primary or co-discipline is considered to have passed the comprehensive examination if the History member/s of the examining committee vote that the candidate passes, and if no more than 20 percent of the examining committee vote to fail the student. If failure is reported, the examining committee will either recommend termination as a Ph.D. student or suggest additional work or other remedial measures. Furthermore, a student who has failed may not take a second examination for at least 12 weeks. Failure of a second comprehensive examination shall automatically preclude candidacy at this institution.

Dissertation Requirements

A student for whom History is a discipline must meet the requirements of the History Department for the discipline, as well as those of the School of Graduate Studies. On a Ph.D. plan of study, where history is the primary discipline, there must be a minimum of 12 credits in HISTORY 5699R (dissertation hours).

The final examination in defense of the dissertation is open to all members of the doctoral faculty, who may attend as interested observers. The supervisory committee and its chair will determine the format and procedures of the defense. The date, time and location must be announced and published at least two weeks before each final examination takes place.

For a student with History as a discipline, this examination may be conducted only after the dissertation has been approved by the History member/s of the supervisory committee.

The defense of the dissertation is approved when a majority of the supervisory committee, including the History member/s of the committee, recommends approval and signs the Report of Result of Final Doctoral Examination form. Within 48 hours of the defense, the supervisory committee chair will report the results of the final dissertation examination in writing to the candidate.

Language Requirements

Those students for whom History comprises their Primary discipline must complete a competency examination in at least one foreign language that will be relevant to their dissertation research and/or future career. The language exam format will be determined by the student’s supervisory committee and will be assessed by a member of the department of foreign languages and literatures or another expert in the field. Students can also choose to complete two years of undergraduate language study in lieu of a challenge exam. Students with research interests that require
competency in more than one language will be encouraged to be certified in relevant languages, but will be examined at the discretion of the supervisory committee.

Those students with History as their co-discipline will ordinarily not be required to demonstrate language competency unless their research topic requires it. It is strongly recommended, however, that all I PhD students choosing History as either primary or co-discipline should pursue some kind of language study or equivalent research skill, such as in quantitative methods.

Retention in the Doctoral Program

A doctoral student must maintain a 3.0 grade-point average in each semester of coursework taken at UMKC. A person receiving a failing grade in a class will normally not be retained in the doctoral program. In exceptional cases, such a student may petition to be placed on probation for one semester.

A student who falls below a 3.0 grade-point average, or whose work is deemed unsatisfactory at any stage of doctoral work by the History member/s of the supervisory committee, with the concurrence of a majority of the resident doctoral faculty of the department, may be declared ineligible for further study.

History Department Policies Regarding Doctoral Faculty

No doctoral student shall be permitted to form a supervisory committee on which the only History faculty members are former faculty at UMKC or adjunct faculty members. Refer to the Web site of the School of Graduate Studies for a list of current doctoral faculty.

Ordinarily, emeritus professors of doctoral faculty status in History shall be allowed to serve on doctoral committees for no more than five years after retirement. Such service shall only be on committees that the required faculty member was already on at the time of retirement. Emeritus faculty members can have their doctoral status extended beyond five years only if at least two-thirds of the members of the History doctoral faculty vote to approve this.

Emeritus professors in History cannot chair dissertation committees. They can, however, co-chair with the approval of a majority of the regular resident doctoral faculty.

The History department adheres to the guidelines of the American Historical Association with regard to student ethics and the responsible conduct of research. The AHA Statement on Standards of Professional Conduct can be found at http://www.historians.org/pubs/Free/ProfessionalStandards.cfm.

Doctoral Fields

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<tr>
<th>Areas</th>
<th>Chronological/National</th>
<th>Topical/Interdisciplinary</th>
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<tbody>
<tr>
<td>Europe</td>
<td>a. Medieval Europe</td>
<td>a. Material Culture &amp; Everyday Life</td>
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<td>b. Early Modern Europe</td>
<td>b. History of Science or Medicine</td>
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<td>c. Modern Europe</td>
<td>c. Area Focus: Medieval Italy; British Isles; Modern Germany</td>
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<td>d. Women, Gender, &amp; Family</td>
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<td>e. State Formation &amp; National Identity</td>
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<td>f. Global Interactions</td>
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<td>Latin America</td>
<td>a. Encounter &amp; Colonial</td>
<td>a. Identity &amp; Culture</td>
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<td>b. Post-Independence</td>
<td>b. Women, Gender, &amp; Family</td>
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<td>c. State Formation &amp; National Identity</td>
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<td>d. Area Focus: Mexico, Central America; Cuba; Puerto Rico, the Southern Cone</td>
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<td>e. Global Interactions</td>
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<td>East Asia</td>
<td>a. Pre-1600</td>
<td>a. Area Focus: Japan; China</td>
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<td>b. Post-1600</td>
<td>b. Women, Gender, &amp; Family</td>
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<td>c. Material Culture and Everyday Life</td>
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<td>d. History of Science or Medicine</td>
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<td>e. Comparative Religions</td>
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<td>f. State Formation &amp; National Identity</td>
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<td>g. Global Interactions</td>
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<tr>
<td>United States</td>
<td>a. Early America</td>
<td>a. Identity &amp; Culture</td>
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<td>b. Modern America - 1800 to the Present</td>
<td>b. History of Science or Medicine</td>
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<td>c. Area Focus: South; West; Midwest</td>
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<td>Material Culture</td>
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<td>Environmental History</td>
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<td>g.</td>
<td>African-American History</td>
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<td>h.</td>
<td>Global Interactions</td>
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Humanities Consortium

Discipline Coordinator
Larson Powell, (816) 235-1316, powelllar@umkc.edu

Humanities Consortium is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

Discipline-Specific Admission Requirements
The Humanities Consortium is only available as a co-discipline option, not as a primary discipline.

Application dossiers for the Humanities Consortium must be complete by January 15 for fall admission or September 1 for spring admission. Dossiers should include:

- an application for graduate study
- a brief statement of academic and professional goals (1 page)
- three (3) letters of recommendation from individuals who are academically or professionally qualified to assess the applicant's ability to pursue doctoral work
- transcripts from all post-secondary schools attended
- a well-focused research proposal that demonstrates the applicant's rationale for application to the Humanities Consortium as a co-discipline and the interdisciplinary nature of the plan of study (1 pages)
- a sample of academic writing (20 pages or less)

Qualifying Requirements for Full Admission to the Humanities Consortium
Applicants to the Humanities Consortium as a co-discipline will be expected to hold a master's degree (MA, MFA, MM, or appropriate MS) or equivalent coursework in a Humanities-related field.

- TOEFL minimum composite score of 550 or IELTS score of 6.0 (international applicants). Applicant should be able to demonstrate facility in English appropriate for graduate work
- a GPA of 3.5 or better in previous graduate study

Applicants who do not meet the requirements above may be granted provisional admission for one year by the doctoral faculty in the Humanities Consortium. An applicant admitted provisionally receives notification of deficiencies and of the conditions which must be met within the first year before the doctoral faculty will consider an applicant for full admission. At the end of the first year, the provisional admission will be reviewed.

Applicants are advised that meeting the criteria of the School of Graduate Studies and the Humanities Consortium does not automatically result in admission to the Interdisciplinary Ph.D. program. When making admission decisions, the doctoral faculty of the Humanities Consortium considers other factors as well, particularly the availability of faculty qualified to work in the applicant’s area of interest and the availability of library resources and research materials.

Recommendations for admission are made by a sub-committee of the Humanities Consortium doctoral faculty which reviews all applications. Applicants are strongly encouraged to contact and confirm two faculty advisors from two distinct disciplines when applying - the Humanities Consortium is an umbrella enterprise that incorporates several disciplines. For advice on finding a faculty advisor, applicants should contact the Coordinator, Dr. Larson Powell, at PowellLar@umkc.edu (powelllar@umkc.edu).

Foreign Language Study
Applicants must demonstrate competency in the foreign language or languages necessary to pursue the stated research plan (or describe a plan of study to achieve this facility). Students may be required, at the discretion of their dissertation committees, to demonstrate or acquire additional language skills to undertake or complete their dissertations.

Suggested Compatible Coordinating Disciplines
Art history (p. 1240), Curriculum and instruction (p. 1256), English (p. 1270), and history (p. 1275).

Core Program Requirements
As a means of introducing doctoral students to interdisciplinary work and to the various fields of inquiry in the Arts & Humanities, the Humanities Consortium Program of Study requires 15 hours of dedicated coursework.

The following three courses (9 hours) are required:
Two additional courses (HMNTY 5500, Introduction to Interdisciplinary Humanities and HMNTY 5520, Research & Creative Methodologies in Humanities are also required)

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<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>HMNTY 5510</td>
<td>Methods in Critical Theory</td>
<td>3</td>
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<tr>
<td>Total Credits</td>
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Two graduate-level courses (3 credits each, numbered at the 400 level or above) are also required, totaling 6 hours. The two elective courses may be in any discipline except the student’s primary discipline, but these courses are subject to approval by the student’s primary advisor, the Humanities Consortium Director, and the instructors of the chosen courses. No more than one course that is classified as independent study may be used as an elective course in the Humanities Consortium.

No grade below B in any course will be accepted to apply toward the Ph.D. degree.

Transfer credit will be at the discretion of the dissertation committee in consultation with the Humanities Consortium Coordinator. No more than 6 hours of transfer credit will be allowed.

**Retention in the Doctoral Program**

Students are expected to maintain a 3.0 GPA during their program of study. A student who falls below a 3.0 GPA, with the concurrence of the doctoral faculty in the Humanities Consortium, may be declared ineligible for further study. A student receiving the grade of F in any graduate course during the program of study will not normally be retained in the program.

**Comprehensive Examination Guidelines**

The School of Graduate Studies guidelines for the comprehensive examination can be found here (p. 1234).

Before advancing to Ph.D. candidacy, students in the Humanities Consortium will take a comprehensive examination that includes both written and oral components. Each student’s dissertation committee will be charged, in accordance with SGS guidelines, with setting the requirements for the comprehensive examination and for evaluating the results of this exam.

**Interdisciplinarity**

Students in the Humanities Consortium will be expected to devise a program of study that demonstrates a commitment to interdisciplinary work and to develop a dissertation that illustrates interdisciplinary practices.
Mathematics

Discipline Coordinator
Noah Rhee, (816) 235-2854, rheen@umkc.edu

Mathematics is a discipline in the Interdisciplinary Ph.D. Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

In order to complete the Interdisciplinary Ph.D. with Mathematics as the primary discipline, students are expected to complete the following requirements:

1. Qualifying Coursework
A student who is admitted to the Interdisciplinary Ph.D. program while having not completed all of the qualifying coursework as described below must complete the missing courses with a GPA of 3.0 or better in order to be deemed qualified to continue in the Interdisciplinary Ph.D. program in the Department of Mathematics and Statistics. A student who has a Bachelor’s degree in Mathematics or Statistics must complete the qualifying courses for his or her emphasis with a GPA of 3.0 or better in order to be deemed qualified.

The qualifying courses for the Interdisciplinary Ph.D. are as follows:

**Mathematics Emphasis**
- MATH 5509 General Algebra I
- MATH 5513 Real Variables I
- MATH 5532 Advanced Numerical Analysis I
- MATH 5510 Complex Variables I
- MATH 5521 Differential Equations
- MATH 5545 Mathematical Methods In Science And Engineering

**Statistics Emphasis**
- STAT 5501 Statistical Design Of Experiments
- MATH 5513 Real Variables I
- STAT 5537 Mathematical Statistics I
- STAT 5547 Mathematical Statistics II
- STAT 5551 Applied Statistical Analysis
- STAT 5565 Regression Analysis
- STAT 5572 Multivariate Analysis

2. Doctoral Course Work
Following the completion of Qualifying Coursework, the student needs to complete the Doctoral Coursework described below:

**Mathematics Emphasis**
- MATH 5519 General Algebra II
- MATH 5523 Real Variables II
- MATH 5542 Advanced Numerical Analysis II
- Any one of STAT 5576, STAT 5578, or STAT 5588

**Statistics Emphasis**
- STAT 5576 Probability
- STAT 5578 Advanced Mathematical Statistics
Additional elective courses may be required at the discretion of the Interdisciplinary Ph.D. Supervisory Committee.

3. Qualifying Exams
Within a year of completing the doctoral Core Coursework, the student is required to complete the Interdisciplinary Ph.D. qualifying examinations. The written examinations under either emphasis are based on two of the three doctoral core courses.

- For the Mathematics emphasis, the written examinations are based on two of the following Doctoral Core Courses: MATH 5519, MATH 5523, and MATH 5542.
- For the Statistics emphasis, the written examinations are based on two of the following Doctoral Core Courses: STAT 5576, STAT 5578, and STAT 5588.
- The student may take one written examination from the opposite emphasis if his or her supervisory committee deems it in the best interest of the student’s Plan of Study, provided the student has taken the course on which the examination is based.
- If a student fails either one or more qualifying exams on the first attempt, he or she may retake the failed parts from the first attempt after a period of 12 weeks. If the student fails the qualifying examination(s) a second time, he or she is terminated from the Interdisciplinary Ph.D. program in Mathematics.

4. The Interdisciplinary Ph.D. Comprehensive Examination
Following the completion of the qualifying examinations, the student is deemed fully qualified to carry out doctoral-level research. At this stage, the student begins his or her doctoral research. Within two years of successful completion of the qualifying examination, the student is required to complete the Interdisciplinary Ph.D. Comprehensive Examination. This examination consists of both a written and an oral portion. The written portion is developed by the student’s Supervisory Committee, and it consists of questions related to the student's research and possible avenues for future work. The student is allotted two weeks to complete the written portion of the examination. Following the completion of the written portion, the student shall submit his or her answers to each member of the Supervisory Committee. The oral portion of the examination is a two-hour session with the student and the Supervisory Committee members in which the student describes his or her research and fields questions and comments about the responses provided in the written portion of the examination. Following the successful completion of the Comprehensive Examination, the student is admitted to Candidacy. Following admission to Candidacy, the student is required to complete twelve Research and Thesis credit hours. If a student fails either the written or the oral portion of the comprehensive exam one time, he or she may retake it after a period of 12 weeks, per School of Graduate Studies regulations. If the student fails either part of the examination a second time, he or she is automatically terminated from the Interdisciplinary Ph.D. program.

5. Dissertation and Final Oral Examination
Within two years of admission to Candidacy, the student is required to have completed the necessary research and writing to form the Dissertation. Once this is complete, the student must complete the Final Oral Examination. This is a two-hour discussion with the student and the supervisory committee. The student must prepare a presentation that outlines the content of the dissertation. The presentation is a public event, so anyone is free to attend. Following the completion of the presentation is a closed-door session with the student and the Supervisory Committee in which the Candidate fields questions and comments regarding the content of the Dissertation. Following successful completion of the Final Oral Examination, the committee will make recommendations for revisions to the dissertation, and the Candidate is required to address these recommendations in order to complete the Interdisciplinary Ph.D.

6. Other Requirements
- In addition to the requirements listed above, the student must satisfy the co-discipline coursework requirements.
- All Interdisciplinary Ph.D. students with mathematics as the primary discipline are required to attend the department graduate seminar at least five times per semester. Those who cannot fulfill this requirement must contact the graduate seminar coordinator.
- The student must satisfy all requirements set forth by the School of Graduate Studies.

Mathematics as a Co-discipline
To get full admission, an applicant should have a Bachelor’s degree in mathematics/statistics from an accredited college or university, or a Bachelor’s degree in another subject including evidence of a strong performance in at least three mathematics courses beyond Calculus I, II, and III. An applicant with mathematics as Co-discipline may get a provisional admission if the above conditions are not fully satisfied at the time of application.

The number of hours required in mathematics for a student who chooses mathematics as a co-discipline will be at least 9 graduate credit hours. Up to three of these credit hours may be at the 400-level.
Suggested Compatible Co-disciplines

Cell biology and biophysics (p. 1245), molecular biology and biochemistry (p. 1284), computer science, (p. 1250) telecommunication and computer networking (p. 1305), electrical and computer engineering (p. 1262), chemistry (p. 1247), curriculum and instruction (p. 1256), physics (p. 1298), geosciences (p. 1274), and engineering (p. 1268).
Molecular Biology and Biochemistry

Discipline Coordinator
Karen Bame, (816) 235-2243, bamek@umkc.edu
Molecular Biology and Biochemistry faculty who are members of the Doctoral Faculty (http://sgs.umkc.edu/for-faculty-and-staff/doctoralgraduate-faculty-lists)

Molecular Biology and Biochemistry is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

Discipline-Specific Admission Requirements
A cumulative GPA of at least 3.0 (on a 4.0 scale) on all college work for bachelor’s degree or post-baccalaureate work. Due to the sequencing of coursework, new students selecting molecular biology and biochemistry as their primary discipline will normally only be admitted in the fall term.

Qualifying Requirements for Full Admission
Minimum of 16 hours of approved graduate coursework at UMKC toward the Ph.D. program with a grade-point average of at least 3.0 on a 4.0 scale. International students must establish English proficiency.

Suggested Compatible Co-disciplines
Chemistry, cell biology and biophysics, pharmaceutical sciences, pharmacology, oral and craniofacial sciences and physics.

Core Program Requirements

Molecular Biology and Biochemistry as a Primary Discipline
Minimum core requirement is 33 course credit hours and 15 dissertation research credits in molecular biology and biochemistry for a total of 48 post-baccalaureate credit hours, distributed as indicated below:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS-MBB 5561</td>
<td>General Biochemistry I</td>
<td>3</td>
</tr>
<tr>
<td>LS-MBB 5562</td>
<td>General Biochemistry II</td>
<td>3</td>
</tr>
<tr>
<td>LS-MBB 5596</td>
<td>Advanced Experimental Molecular Biology I</td>
<td>2</td>
</tr>
<tr>
<td>or LS-MBB 5597</td>
<td>Advanced Experimental Molecular Biology II</td>
<td>2</td>
</tr>
<tr>
<td>LS-MBB 5611</td>
<td>Seminar in Molecular Biology and Biochemistry (2 x 1 cr. hr.)</td>
<td>2</td>
</tr>
<tr>
<td>LS-MBB 5690</td>
<td>Analytical Methods in Molecular Biology and Biochemistry</td>
<td>1-4</td>
</tr>
<tr>
<td>or LS-CBB 5690</td>
<td>Analytical Methods in Cell Biology and Biophysics</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 5501</td>
<td>Proposal Writing</td>
<td>1</td>
</tr>
</tbody>
</table>

7 cr. hr. in discipline or related discipline courses (LS-CBB, LS-MBB, BIOL, PHARM, etc.) 15 cr. hr. LS-MBB 5699 Dissertation Research.

Related Discipline Courses Required
Ten additional course credit hours in one related discipline or combination of disciplines. Related disciplines are defined as cell biology and biophysics, chemistry, pharmaceutical sciences, pharmacology, oral biology or other. Seminar courses may be part of this component of required courses, up to a maximum of three for the program, as are two additional credits of advanced experimental molecular or cell biology.

Electives
Each student’s supervisory committee may require additional courses in any University-approved doctoral discipline as preparation for specific areas of research. These additional requirements may not exceed nine credit hours beyond the 33 credits required for the basic course core. These electives may be taken at any time during enrollment as a graduate student, up to the semester prior to that in which the dissertation defense will occur. No more than seven course credit hours of 5500-level courses, or their equivalent, can be taken at institutions outside UMKC. Remember that 5700-level courses may not be used to satisfy course requirements for the program.

Molecular Biology and Biochemistry as a Co-discipline

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LS-MBB 5561</td>
<td>General Biochemistry I</td>
<td>3</td>
</tr>
<tr>
<td>LS-MBB 5562</td>
<td>General Biochemistry II</td>
<td>3</td>
</tr>
<tr>
<td>LS-MBB 5611</td>
<td>Seminar in Molecular Biology and Biochemistry</td>
<td>1</td>
</tr>
</tbody>
</table>
Additional SBS graduate courses (LS-CBB, LS-MBB or BIOL) for a minimum of 10 cr. hr.

**Other Discipline-Specific Special Requirements**

**Research**
The School of Biological Sciences offers research opportunities in many areas of modern life sciences that address problems of basic life processes at the cellular, subcellular and molecular levels. Graduate studies offered with primary participation of the faculty in the Division of Molecular Biology and Biochemistry are based on the belief that training for research can be best accomplished by having an appropriate breadth of background coursework, combined with a depth of specialization in a particular research area. The faculty have established guidelines that have a minimum of formal requirements so that students have the flexibility to advance at a pace consistent with development of the individual. Diligence, creativity and independent thinking are the qualities desired in the candidate’s dissertation work.

**Teaching**
As part of their graduate training, all Ph.D. students with molecular biology and biochemistry as the primary discipline participate in the teaching program of the School of Biological Sciences. This is an important component of preparation for a career in academia or other institutions and aids in the development of effective communication skills.

**Seminars**
Students will participate in seminars in which current developments in various areas of life sciences will be discussed and explored. Students also will present seminars on their own work or on work in the current scientific literature. The latter is taken as part of the core of graduate-level courses in the primary or co-disciplines.

**Course Restrictions**
5700-level courses may not be used to satisfy molecular biology and biochemistry discipline-specific course requirements.

**Dissertation**
The dissertation abstract and proposal must be submitted to and approved by the supervisory committee prior to beginning the third academic year of study after enrollment in the Ph.D. program.

**Retention in Program**
For students with this discipline as their primary discipline, no more than one C grade in a core course or two C grades in any course, and no D or F grades, are permitted. A student who receives more than two C grades will be recommended for termination from the doctoral program. A student who receives a D or F grade will be dropped from the program.

The doctoral faculty in molecular biology and biochemistry meets formally at the end of each academic year to discuss and evaluate the progress of all graduate students. Each student’s committee also meets with the student at least once a year. After the annual doctoral faculty meeting, all students receive written evaluations of their status and a report is placed in each student’s file.

**Requirements for Comprehensive Examinations**
To become a Ph.D. candidate, the student must pass a comprehensive exam that may be taken on completion of essentially all of the coursework specified in the student’s study plan and on satisfactorily fulfilling the requirements for full admission. This must be done before the beginning of the third academic year after admission to UMKC with graduate student status, or (for part-time students) immediately after completion of 25 credit hours approved by the discipline-doctoral program at UMKC. This exam will be administered by the student’s supervisory committee and will test the student’s knowledge of background material, as well as the student’s ability to analyze and interpret information and solve problems.

**Written Portion**
The written examination for students who have molecular biology and biochemistry as their primary discipline consists of an NIH-style grant proposal that the student will prepare. The topic of the research proposal will be determined by the student in consultation with the student’s supervisory committee.

**Oral Portion**
The oral examination also has two aspects: (1) questions covering the grant proposal prepared by the student for the written examination and (2) other related material in the student’s area of specialization, including fundamental knowledge of the primary and secondary disciplines.
Music Education

Discipline Coordinator
Joseph Parisi, (816) 235-2919, parisijo@umkc.edu

Music Education faculty who are members of the doctoral faculty.

Music Education is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

Discipline-Specific Admission Requirements

In addition to the general criteria, applicants selecting music education as a discipline must:

- Have an aggregate minimum undergraduate GPA of 3.0 and graduate GPA of 3.5 on a 4.0 scale.
- Submit a thesis or equivalent evidence of written scholarship.
- Have minimum scores of 143 on the verbal, 138 on the quantitative and 3.0 on the writing portion of the GRE.
- Have an acceptable on-campus interview with doctoral faculty members from this discipline.
- Demonstrate comprehensive musicianship through videotape, performance, classroom teaching, audition or jury.
- Music Education: Minimum 3 years K-12 teaching experience.
- Music Therapy: Minimum of 3 years fulltime musical therapy clinical experience or the equivalent.
- Comprehensive musicianship and/or clinical effectiveness submitted by videotaped or live demonstrations in solo performance, ensemble performance/conducting, classroom teaching, or clinical applications.
- In most cases, students entering the Interdisciplinary Ph.D. program will have earned at least one degree in Music Education and/or Music Therapy.

Alternate Admission Criteria

Applicants may ask to be considered under the following alternate admission criteria:

- Have an undergraduate GPA of 3.0 or a graduate GPA of 3.5 on a 4.0 scale.
- Submit a thesis or equivalent evidence of written scholarship.
- Score 900 or above on the SAT with both the verbal and math scores above 400; or score 21 or above on the ACT.
- Have an acceptable off-campus interview with at least two UMKC music education/therapy doctoral faculty or have two written recommendations from UMKC doctoral faculty.
- Music Education: Minimum 3 years K-12 teaching experience.
- Music Therapy: Minimum of 3 years fulltime musical therapy clinical experience or the equivalent.
- In most cases, students entering the Interdisciplinary Ph.D. program will have earned at least one degree in Music Education and/or Music Therapy.
- Comprehensive musicianship and/or clinical effectiveness submitted by videotaped or live demonstrations in solo performance, ensemble performance/conducting, classroom teaching, or clinical applications.

Qualifying Requirements for Full Admission

- Have a GPA of at least 3.5 in courses to be counted for the degree.
- Have an acceptable interview with members of the student's supervisory committee.
- Have acceptable scores on designated tests covering music history, music theory and music education/therapy.

Suggested Compatible Co-disciplines

Curriculum and instruction is the primary co-discipline. Other potential co-disciplines can be considered by students in consultation with primary discipline coordinator and faculty.

Core Program Requirements

Music education will function only as a primary discipline in the UMKC Interdisciplinary Ph.D. program. Because of this, the following minimum standards apply only to students with music education as their primary discipline.
Research
Two important goals for students with music education as their primary discipline and education as a co-discipline will be to develop research skills and increase their awareness of important research literature. Through introductory courses at the Conservatory, students will become acquainted with research techniques, problems and literature in music education/therapy. Additional research courses in the School of Education and other academic units will provide more tools for structuring research designs and analyzing data. Students in the program will assist their faculty mentors in research while developing a research agenda of their own. The number and nature of research classes placed on each student’s program of study will be determined by the background, goals and interests of the student.

Teaching Techniques and Philosophies
While students may have widely divergent career goals, ranging from becoming a district music supervisor in a K-12 program, training undergraduate music therapists or being a college choral conductor, all will be actively involved in the education process in some form. To develop a comprehensive acquaintance with education at all levels, Ph.D. students will enroll in methods classes, will be assigned to observe and teach undergraduate classes at UMKC and will observe and help supervise student teachers in local K-12 schools. Courses in the Conservatory, the School of Education and other academic units will help students efficiently interpret the techniques and philosophies they observe in the classroom, determine their own goals and philosophies, and consequently, become better teachers.

Seminars and Core Courses
While research and teaching are areas of great importance, it is anticipated that most students will need theoretical information to structure their teaching and research endeavors. Courses in theories of learning in general and in music, as well as seminars on the latest teaching techniques and methodologies, will give students a knowledge base to better facilitate their own teaching and to prepare future students to teach. Particular attention will be given to cultivating critical thinking skills in students and nurturing multicultural values.

Program Requirements
It is anticipated that most students selecting music education and education as their disciplines will have completed a master’s degree in music education or a related field. Students with backgrounds in music therapy are also encouraged to apply.

While total degree-hour requirements for the Ph.D. will vary depending on each student’s career goals, previous experience and training, it is anticipated that for most students, course requirements will include 35 to 45 pre-dissertation hours. If a student has completed a bachelor’s or master’s degree in some area other than music education/therapy, additional work beyond this approximate range will probably be required. No specific course requirements are designated. Depending on the previous work of the individual and the career direction sought, each program of study, including foreign language requirements, will be considered on an individual basis.

Co-discipline Requirements
Curriculum and instruction is the most common co-discipline for music education in the Interdisciplinary Ph.D. program. It is anticipated there will be many permutations which are a product of this combination. Within the spirit of flexibility, which is the essence of the Interdisciplinary Ph.D. program, students are allowed to enroll in other fields of study such as history, philosophy, psychology, art and non-music education/therapy Conservatory classes. The primary area of study outside music education and/or music therapy will constitute from 15 to 50 percent of pre-dissertation hours in the planned program of study.

Comprehensive Examination Guidelines
Written and oral comprehensive examinations will be taken during the semester when the student completes all, or (in some special cases) nearly all, of the classes outlined in the planned program of study or the semester immediately following the completion of classes. The exams must be scheduled with the supervisory committee no later than four weeks before they are to occur. The comprehensive exam will include a total of 18-24 hours of written and oral questions. The hours will be divided between the coordinating unit of music education/therapy (not to exceed 60 percent of the total number of hours on the exam) and the co-discipline (15-40 percent of the hours) so as to reflect the student’s planned program. Exams in the coordinating area will include 12-18 hours of written questions in the student’s major area.

An Interdisciplinary Ph.D. student may elect to substitute written research projects previously approved by the supervisory committee for this portion of the exam. In addition, a two-hour oral exam pertaining to research projects and courses completed by the student, a three-hour written exam relating to general knowledge of music research techniques and procedures, and a one-hour written exam pertaining to music education or music therapy history and philosophy will be required.
Oral and Craniofacial Sciences

**Discipline Coordinator**

Mary P. Walker, Director of Graduate Programs (816) 235-2825, walkermp@umkc.edu

Oral and Craniofacial Sciences faculty who are members of the doctoral faculty (http://sgs.umkc.edu/for-faculty-and-staff/doctoralgraduate-faculty-lists).

Oral and Craniofacial Sciences is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

**Note:** The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

**Overview**

In concert with the School of Graduate studies, the Department of Oral and Craniofacial Sciences offers a doctoral program that must include the in-depth study of at least two disciplines. Students in the Oral and Craniofacial Sciences program can choose to participate in any of the department's three areas of research focus:

- **Biomaterials/Bioengineering of Biological Tissues and Replacements**
  The overall goal of this program is to apply an integrated approach involving innovative computer modeling and organic synthesis, novel biocompatibility evaluation, comprehensive materials characterization, and mechanistic development of improved dental biomaterials. One component of this program is an engineering component that emphasizes micro- and nano-structure/property characterization of natural biomaterials such as bone, dentin, and enamel as a tissue engineering approach to the development of replacement materials.

- **Mineralized Tissue Biology**
  This program is aimed at determining basic biological mechanisms and the cause and treatment of disease of bone and teeth during development and in the adult. Approaches include the use of basic in vitro methods combined with genomics, proteomics, bioinformatics, and transgenic technology.

- **Translational and Clinical Research**
  Translational and clinical research involves results from clinical observations translating into basic research and incorporates basic research findings into clinical assessment and practice. The identification, characterization and synthesis of materials for clinical use requires the combined efforts and expertise of clinical scientists, materials scientists, biostatisticians, bioengineers, geneticists, chemists, physicists, and computer scientists.

**Program**

The Interdisciplinary Ph.D. program is composed of a significant supervised research effort along with courses in areas such as biomaterials, research design and methodology, statistics, grantsmanship, biochemistry, proteomics, genomics, histology, and pathology. The primary didactic effort will be in oral and craniofacial sciences (biomaterials/bioengineering of biological tissues and replacements, mineralized tissue biology, or translational/clinical research) and the student will select a secondary area of concentration from other Interdisciplinary Ph.D. disciplines.

**Duration**

The length of the program is dependent on the academic background and abilities of the applicant and may vary from three to five years. The program culminates with an Interdisciplinary Ph.D. in Oral and Craniofacial sciences degree and the designated co-discipline or co-disciplines.

**Student Learning Outcomes**

The developed program of study will meet the student's individual needs and research interests, satisfy discipline-specific requirements, and assure upon graduation that students are able to:

1. Demonstrate a deeper understanding of the link between scientific research and clinical health care practice
2. Conduct thorough literature reviews based on an understanding of periodical databases and scholarly journals in the health sciences; have the aptitude to assess the validity of literature and determine how it may be applied in both research and clinical settings
3. Demonstrate the ability to conduct original research projects, drawing on an understanding of the current literature, appropriate study design, methodologies, and data analysis
4. Develop the capability to produce written materials that are clear, well-organized, insightful, and drawn from evidence-based research
5. Employ the communications skills needed to successfully convey important scientific and clinical concepts in oral presentations and communications
6. Apply professional ethics with the highest standards of integrity in all facets of research

**Eligibility**

An applicant must meet the minimum general requirements for admission to Interdisciplinary Ph.D. study at UMKC and must satisfy grade point average requirements as stated in the admission requirements section of the Academic Regulations and Information of Doctor of Philosophy Studies.
at the University of Missouri-Kansas City. To advance to candidate status, the student must successfully complete written and oral comprehensive examinations relevant to their primary and co-discipline(s).

**Discipline-Specific Admission Requirements**

In addition to the general minimum requirements for admission to interdisciplinary Ph.D. study, an applicant must hold either (1) a baccalaureate degree, (2) an M.S. degree, or (3) a D.D.S. or equivalent degree. In general, an applicant will be expected to have a minimum cumulative GPA of 3.0 based on a 4.0 scale for previous education programs, including dental school (if applicable).

Applicants must also meet the following minimum GRE requirements:

<table>
<thead>
<tr>
<th>GRE</th>
<th>Score Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative</td>
<td>150</td>
</tr>
<tr>
<td>Verbal</td>
<td>155</td>
</tr>
<tr>
<td>Analytical Writing</td>
<td>4.0</td>
</tr>
</tbody>
</table>

The TOEFL is required for all international applicants, who must have a score of at least 80. An IELTS score of 6.0 or above may be accepted in place of the TOEFL.

All application materials should be submitted prior to March 1 for students wishing to begin their study in the fall semester; however, applications will be accepted throughout the year. Evaluation criteria include the following:

- Transcripts. Analysis of transcripts from all prior institutions is required.
- Letters of recommendation. Three letters of recommendation are required from current or former teachers who are familiar with the applicant’s past achievements and research ability.
- Personal statement from applicant. The applicant must submit a letter describing why he or she is interested in pursuing an Interdisciplinary Ph.D. study in oral and craniofacial sciences, how the experience of the program may be used by the candidate in the future, and a list of potential research interests.
- Interviews. Interviews are not required; however, interviews are preferred and will be arranged upon the candidate’s request. Successful interviews may enhance the candidate’s chance of acceptance.

**Suggested Compatible Co-disciplines**

Biomedical and Health Informatics (p. 1242), Cell biology and biophysics, entrepreneurship and innovation, molecular biology and biochemistry, pharmacology, chemistry, physics, engineering, computer science, electrical and computer engineering, telecommunication and computer networking, and public affairs and administration (public health emphasis).

**Core Program Requirements**

The required minimum core curriculum for students with oral and craniofacial sciences as a discipline will consist of a minimum of nine credit hours in oral and craniofacial sciences. See minimum course requirements below. The student’s supervisory committee may require additional courses for an Interdisciplinary Ph.D. program which includes the department of oral and craniofacial sciences as the primary discipline or as a co-discipline. Ph.D. students with oral and craniofacial sciences as their primary unit must either complete these courses at UMKC or must have completed equivalent coursework at approved institutions at the time of their admission to the Interdisciplinary Ph.D. program. Students are referred to other sections of the current UMKC general catalog for listings of appropriate graduate-level courses. The curriculum requirements also include a minimum of 3 credit hours of ethics training.

**Minimum Coursework Requirements**

The Discipline Coordinator/OCS Program Director will serve as the student’s academic advisor for oral & craniofacial sciences Interdisciplinary Ph.D. students. In accordance with the general requirements for the Interdisciplinary Ph.D. program, a Ph.D. student must prepare a coursework plan of study in conjunction with the discipline coordinator/program director and co-discipline coordinator. A student’s plan of study must include coursework in oral and craniofacial sciences as well as in at least one other discipline.

Coursework must satisfy all discipline-specific requirements and may include additional courses as appropriate to the student’s research focus. Course selection will be made in conjunction with the Department of Oral and Craniofacial Sciences Director of Graduate Research Programs and the General requirements are listed below:

- The Plan must include coursework from all of the student’s disciplines
- No more than 60 percent of the total coursework taken at UMKC and included on the Ph.D. Plan of Study, exclusive of dissertation hours, may be from any one discipline
- Coursework from disciplines other than the ones to which the student has been admitted may be included on the Coursework Plan of Study and counted in the total percentage
- No more than 25 percent of the total coursework may be from disciplines not formally participating in the Interdisciplinary Ph.D. Program
• The Plan must include at least 30 didactic hours beyond the baccalaureate degree, exclusive of dissertation research hours, in courses taken at UMKC or in courses taken at another institution which are approved for transfer by the Discipline Coordinator/Program Director.
• The Plan must include a minimum of 9 credit hours, exclusive of dissertation research hours, in a co-discipline area to which the student has been admitted.
• The Plan must include at least 12 hours of dissertation credits.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO-SCI 5751</td>
<td>Elements of the Scientific Method</td>
<td>1-2</td>
</tr>
<tr>
<td>BIO-SCI 5752</td>
<td>Research Methods in Oral and Craniofacial Sciences</td>
<td>1-5</td>
</tr>
<tr>
<td>RES-ME 5700</td>
<td>Introduction To Research Methodology</td>
<td>2-3</td>
</tr>
<tr>
<td>RES-ME 5704</td>
<td>Introduction to Biostatistics</td>
<td>2-3</td>
</tr>
<tr>
<td>RES-ME 5706</td>
<td>Dissertation Writing</td>
<td>1</td>
</tr>
</tbody>
</table>

**Dissertation**

No less than 12 credits of the following are required:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR-BIO 5699</td>
<td>Dissertation Research</td>
<td>12</td>
</tr>
</tbody>
</table>

**Applicable Courses**

Examples of additional courses applicable to the program:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO-SCI 5700</td>
<td>Biomaterials Teaching</td>
</tr>
<tr>
<td>BIO-SCI 5706</td>
<td>Growth and Development I</td>
</tr>
<tr>
<td>BIO-SCI 5707</td>
<td>Growth and Development II</td>
</tr>
<tr>
<td>BIO-SCI 5710</td>
<td>Genetics and Biochemistry of Cranial Facial Biology</td>
</tr>
<tr>
<td>BIO-SCI 5739</td>
<td>Biomaterials for the Dental Specialist</td>
</tr>
<tr>
<td>BIO-SCI 5740</td>
<td>Oral Pathology I</td>
</tr>
<tr>
<td>BIO-SCI 5742</td>
<td>Biomaterials for the Restorative and General Dentist</td>
</tr>
<tr>
<td>BIO-SCI 5743</td>
<td>Advanced Seminar in Dental Biomaterials</td>
</tr>
<tr>
<td>BIO-SCI 5747</td>
<td>Research Instrumentation Used in Dental Biomaterials</td>
</tr>
<tr>
<td>BIO-SCI 5750</td>
<td>Special Problems in Dental Biomaterials</td>
</tr>
<tr>
<td>BIO-SCI 5759</td>
<td>Special Problems in Pharmacology</td>
</tr>
<tr>
<td>BIO-SCI 5760</td>
<td>Physiology of Oral Mineralized Tissues</td>
</tr>
<tr>
<td>BIO-SCI 5790</td>
<td>Directed Research In Oral and Craniofacial Sciences</td>
</tr>
<tr>
<td>BIO-SCI 5801</td>
<td>Readings in Immunology</td>
</tr>
<tr>
<td>BIO-SCI 5802</td>
<td>Immunopathology</td>
</tr>
<tr>
<td>BIO-SCI 5805</td>
<td>Molecular Biology of Oral Microflora</td>
</tr>
<tr>
<td>BIO-SCI 5830</td>
<td>Structural Characterization of Dental Biomaterials</td>
</tr>
<tr>
<td>MEDB 5561</td>
<td>Responsible Conduct of Research</td>
</tr>
</tbody>
</table>

**Departmental Research Orientation**

Enrollment in BIO-SCI 5751 required

• Interdisciplinary Ph.D. students will select and rotate through a minimum of four laboratories in the Department of Oral and Craniofacial Sciences conducting a short research project in each. At the end of the semester, a report is required reviewing the research project and instrumentation in each laboratory. Students are also required to attend the weekly Department of Oral and Craniofacial Sciences Seminar Series and the monthly Professional Development Seminar Series. Research presentations cover a variety of biological, engineering and behavioral science disciplines relevant to oral science education and the oral health care profession. Presentations will be by faculty, students, and invited guest lecturers.

Enrollment in BIO-SCI 5752 required

• As the student identifies a research focus for the dissertation project, they will begin reviewing the literature and relevant instrumentation in conjunction with a selected research advisor.

**Seminar Series**

• Graduate students are expected to attend the weekly Department of Oral and Craniofacial Sciences Seminar Series and the monthly Professional Development Seminar Series.

Information available from Department of Oral and Craniofacial Sciences website at http://dentistry.umkc.edu/oralbio/oralbiologyseminar.shtml
Thesis and Dissertation Defense Exams

- Graduate students are expected to attend all thesis and dissertation defense exams

Other Discipline-Specific Special Requirements

Dissertation Research

In accordance with general Interdisciplinary Ph.D. program requirements, each student with oral and craniofacial sciences as the primary discipline must submit a dissertation proposal, prepared in consultation with the student's dissertation chair, which describes an interdisciplinary program of original research on a significant problem in oral and craniofacial sciences. The proposal will be reviewed by the student's Ph.D. supervisory committee. The student may be required to revise and resubmit the proposal to the supervisory committee. A copy of the accepted proposal will then be forwarded to the dean of the School of Graduate Studies.

The student must provide evidence that a substantial portion of the dissertation will be submitted for publication to refereed journals. Such proof may be in the form of a manuscript in preparation for submission or a submitted manuscript. The student must submit the complete dissertation, in electronic form, to his or her faculty advisor for review and preliminary approval at least eight weeks before the expected date of graduation.

Appeals

In the event of disputes or special requests concerning a student's Ph.D. program, written appeals or documentation must first be submitted to the student's supervisory committee. If a resolution of the problem cannot be affected at that level, the written appeals process must then progress through the following levels:

1. Program Director and Department Chair
2. Associate Dean for Research & Graduate Programs
3. Interdisciplinary Ph.D. Executive Committee.
4. Dean, School of Graduate Studies.

Academic Retention

A 3.0 or better grade-point average is required of all work applicable to the Interdisciplinary Ph.D. program. A Ph.D. student with oral and craniofacial sciences as a discipline is subject to termination from the Interdisciplinary Ph.D. program if: (1) his or her grade-point average falls below 3.0; (2) more than four hours of C (2.0) grades are received; or (3) any grade of D or F is received.

A recommendation for termination from the program will be made by the student's dissertation chair to the program director. The next level of review would be the department chair, associate dean for research and graduate programs, and then the Interdisciplinary Ph.D. executive committee and the dean of the School of Graduate Studies.

Comprehensive Examination Guidelines

A comprehensive examination will be administered to all students enrolled in the Interdisciplinary Ph.D. program whose subject emphasis area is oral and craniofacial sciences. The examination includes both written and oral components. Content of the comprehensive examination will be tailored to the student's field of research interest and prepared with input from all members of the student's supervisory committee.

Oral and Craniofacial Sciences as a Co-discipline

- The Plan of Study must include a minimum of 9 approved credit hours, exclusive of dissertation research hours, in the Oral and Craniofacial Sciences co-discipline area
- At least one member of the Department of Oral and Craniofacial Sciences doctoral faculty must serve on the dissertation committee
- The Department of Oral and Craniofacial Sciences Graduate Program Director will serve as the interim advisor to co-discipline Interdisciplinary Ph.D. students.

Students will select courses applicable to their program from the following list with guidance from the Department of Oral and Craniofacial Sciences Director of Graduate Research Programs.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO-SCI 5751</td>
<td>Elements of the Scientific Method</td>
<td>1-2</td>
</tr>
<tr>
<td>BIO-SCI 5752</td>
<td>Research Methods in Oral and Craniofacial Sciences</td>
<td>1-5</td>
</tr>
<tr>
<td>RES-ME 5700</td>
<td>Introduction To Research Methodology</td>
<td>2-3</td>
</tr>
<tr>
<td>RES-ME 5704</td>
<td>Introduction to Biostatistics</td>
<td>2-3</td>
</tr>
<tr>
<td>BIO-SCI 5710</td>
<td>Genetics and Biochemistry of Cranial Facial Biology</td>
<td>2</td>
</tr>
<tr>
<td>BIO-SCI 5739</td>
<td>Biomaterials for the Dental Specialist</td>
<td>1</td>
</tr>
<tr>
<td>BIO-SCI 5742</td>
<td>Biomaterials for the Restorative and General Dentist</td>
<td>2</td>
</tr>
</tbody>
</table>
### Oral and Craniofacial Sciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO-SCI 5743</td>
<td>Advanced Seminar in Dental Biomaterials</td>
<td>1-2</td>
</tr>
<tr>
<td>BIO-SCI 5760</td>
<td>Physiology of Oral Mineralized Tissues</td>
<td>2</td>
</tr>
<tr>
<td>MEDB 5561</td>
<td>Responsible Conduct of Research</td>
<td>3</td>
</tr>
</tbody>
</table>

UMKC is An Equal Opportunity/Affirmative Action/Pro Disabled & Veteran Employer
Pharmaceutical Sciences

Discipline Coordinator
Ashim Mitra, (816) 235-1615, mitraa@umkc.edu

Pharmaceutical Sciences faculty who are members of the doctoral faculty.

Pharmaceutical Sciences is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

Discipline-Specific Admission Requirements

Due to course sequencing, new students will ordinarily be accepted only in the fall term. Applicants must hold a professional degree in pharmacy (Pharm.D. or B.S.) or a baccalaureate degree in a related field such as chemistry, biology or mathematics with an undergraduate GPA of at least 3.0 on a 4.0 scale. Students who hold a master's degree in an appropriate discipline may be admitted on satisfaction of the general requirements of the School of Graduate Studies.

Qualifying Requirements for Full Admission

Admission depends on agreement of a member of the doctoral faculty in the discipline to serve as research advisor. All students are admitted provisionally except those holding an M.S. in pharmaceutical sciences. Full admission will be granted on satisfactory completion of 16 credit hours of courses recommended by the provisional pharmaceutical sciences faculty advisor during the first calendar year on campus. Students seeking admission to the pharmaceutical sciences discipline of the Interdisciplinary Ph.D. program should have completed coursework in calculus, organic chemistry, physical chemistry, biochemistry, microbiology, human anatomy and physiology where appropriate to their interests. Graduate students will be given a placement examination administered by the primary discipline faculty in order to assess undergraduate preparation for graduate-level study. Deficiencies existing on admission must be discussed with the interim faculty advisor during the first two semesters of graduate work. Course equivalency is determined by the pharmaceutical-science discipline faculty on a case-by-case basis. Students are required to pass the discipline placement exams before appearing for the comprehensive exams administered by the supervisory committee.

On admission, all students are assigned interim faculty advisors as stated in the letter of admission. Graduate students must adhere to the guidelines as stated in the School of Pharmacy Graduate Programs section of this catalog pertaining to selection and changes of faculty advisors.

Suggested Compatible Co-disciplines

Biomedical and Health Informatics (p. 1242), chemistry, cell biology and biophysics, molecular biology and biochemistry, mathematics (p. 1281), and oral and craniofacial sciences (p. 1288), pharmacology.

Core Program Requirements

Pharmaceutical Sciences as the Primary Discipline

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pharmaceutical Sciences Courses</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Co-Discipline Courses</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Other Coursework</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PHARM 5580A Seminar in Pharmaceutical Sciences</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>PHARM 5699 Research and Dissertation</td>
<td>1-16</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td>45</td>
</tr>
</tbody>
</table>

Pharmaceutical Sciences as Co-discipline

The pharmaceutical sciences doctoral faculty member(s) of the supervisory committee will confer regarding the student’s program of study and recommend appropriate courses offered by the co-discipline. Generally, courses in the co-discipline will constitute successful completion of at least 20 percent of the approved course of study. All students choosing pharmaceutical sciences as a co-discipline must complete at least three graduate-level courses in pharmaceutical sciences compatible with research objectives recommended by the supervisory committee.

For provisionally-admitted co-discipline students in Pharmaceutical Sciences in fulfillment of their full-admission requirements must take at least 9 credits of the regular recommended courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Select three of the following:</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>PHARM 5521 Advanced Organic Medicinal Chemistry</td>
<td></td>
</tr>
</tbody>
</table>
and pass with a "B" or better.

Other Discipline-Specific Special Requirements

Requirements for Retention

Students who receive two C grades or one D grade in didactic courses are subject to dismissal from the program. A student who receives one F grade will not be retained. Students will not be allowed to attain more than one C grade in a co-discipline course.

Appeals

Appeals by graduate students on matters pertaining to research or studies in the discipline will be routed initially to the supervisory committee and managed according to the appropriate procedures established for the Division of Pharmaceutical Sciences, School of Pharmacy.

Comprehensive Examination Guidelines

Ph.D. students who choose pharmaceutical sciences as the primary discipline must successfully pass a qualifying examination given by the division prior to applying to take their written and oral comprehensive examinations. Once the qualifying examination has been successfully completed, the comprehensive examinations will be given after the student has completed the majority of didactic coursework requirements but not later than the end of the third year. The examinations will be administered by the student's supervisory committee. The comprehensive examinations (written and oral) must be passed before a doctoral student can be admitted to candidacy. Before the comprehensive examination can be taken, the student must submit and have accepted a research proposal in a form satisfactory to the supervisory committee. The comprehensive examination will be administered by the student's supervisory committee and will consist of both written and oral components.
Pharmacology

Discipline Coordinator
Dr. Anil Kumar, (816) 235-1792, kumaran@umkc.edu

Pharmacology faculty who are members of the Doctoral Faculty.

Pharmacology is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

Discipline-Specific Admission Requirements

Due to course sequencing, new students will ordinarily be accepted only in the fall term. Applicants must hold a professional degree in pharmacy (Pharm.D. or B.S.) or a baccalaureate degree in biological, chemical science or health science. In special situations, baccalaureate degrees in other disciplines will be evaluated for possible admission. For graduates of foreign schools, the applicant must have completed a course of study at least the equivalent of a U.S. baccalaureate degree.

Prospective students must have an aggregate minimum grade-point average of 3.0 on a 4.0 scale for all college work taken prior to the bachelor’s degree, or an aggregate GPA of at least 3.5 on all post-baccalaureate work to date (minimum of nine hours). For graduates of foreign schools, the applicant must have above-average grades in previous college study.

Prospective students must have a minimum aggregate GRE score of 295 for verbal and quantitative and 3.5 out of 6.0 for analytical writing.

For graduates of foreign schools, the applicant must have a minimum score of 550 on written or 213 computer-based or 80 on Internet-based TOEFL exam or alternatively, a minimum score of 6 on the IELTS.

Qualifying Requirements for Full Admission

Students seeking admission to the pharmacology discipline of the Interdisciplinary Ph.D. program should have completed coursework in organic chemistry I and II, biochemistry I and II, calculus, anatomy, microbiology, physiology I and II and a biostatistics course. Deficiencies existing on admission must be satisfied during the first two semesters of graduate work. In addition, during the first year of graduate study, provisional Ph.D. students with pharmacology as a discipline must complete the following courses with a grade of B or better:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHARM 5509</td>
<td>Toxicology</td>
<td>3</td>
</tr>
<tr>
<td>PHARM 5519</td>
<td>Pharmacology I</td>
<td>2</td>
</tr>
<tr>
<td>PHARM 5520</td>
<td>Pharmacology II</td>
<td>4</td>
</tr>
<tr>
<td>PHARM 5530</td>
<td>Pharmacology III</td>
<td>4</td>
</tr>
<tr>
<td>PHARM 5615</td>
<td>Methods In Pharmacology And Toxicology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

Suggested Compatible Co-disciplines

Pharmaceutical sciences, cell biology and biophysics, chemistry, molecular biology and biochemistry or other related fields in health sciences that offer Ph.D. degrees.

Core Program Requirements

Pharmacology as Primary Discipline

Specific course requirements will be determined by the student in consultation with the research advisor and the supervisory committee. Generally, 65 post-baccalaureate credit hours, including 20 hours of research and dissertation and 45 hours of coursework, are required for the Ph.D. degree. No more than 27 credit hours (60 percent) can be obtained from a single discipline (preferably in pharmacology). The remaining 18 credit hours (40 percent) can be obtained from one or more participating disciplines. No more than 25 percent of the coursework (~11 credits) from non-participating disciplines will be counted toward the Ph.D. degree. More co-disciplines will be required. As many as 15 credits may be allowed for courses taken in a master’s degree program at another institution with the concurrence of the student’s supervisory committee.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHARM 5519</td>
<td>Pharmacology I</td>
<td>2</td>
</tr>
<tr>
<td>PHARM 5520</td>
<td>Pharmacology II</td>
<td>4</td>
</tr>
</tbody>
</table>
Additional Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC-R&amp;P 5505</td>
<td>Statistical Methods I</td>
<td>3</td>
</tr>
<tr>
<td>Co-Discipline courses</td>
<td>1 7-11 credit hours in one or a combination co-disciplines, which may include Cell Biology and Biophysics, Chemistry, Molecular Biology and Biochemistry, Oral Biology, Pharmaceutical Sciences or other pertinent areas as approved by the supervisory committee.</td>
<td>7-11</td>
</tr>
<tr>
<td>Advanced courses (5500-level or above)</td>
<td>2 2-6 credit hours of advanced courses (5500 level or above) pharmacology or related areas as approved by the supervisory committee.</td>
<td>3-7</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>35</td>
</tr>
</tbody>
</table>

Other Electives

A supervisory committee may require that additional coursework be taken to prepare the student in a specific research area. This additional requirement may not exceed six credit hours, may be taken in any approved doctoral discipline and must be completed prior to the semester in which the dissertation defense occurs.

Pharmacology as Co-discipline

Students who apply for Pharmacology as a co-discipline should have completed coursework equivalent to LS-PHYS 399 and LS-PHYS 400 and LS-BIOC 365 and LS-BIOC 366, which are offered at UMKC. Deficiencies existing on admission must be satisfied during the first two semesters of graduate work. When pharmacology is chosen as the co-discipline, the minimum course requirements are completion of PHARM 5519, PHARM 5520 and one credit hour of PHARM 5580C, plus sufficient courses constituting the required percentage of their program of study, as approved by the supervisory committee. No C grade in any core course will be permitted. Students who receive more than one C grade on elective courses will be dropped from pharmacology as a co-discipline. Students must take and successfully pass a written and oral comprehensive examination administered by the supervisory committee members from the Division of Pharmacology. Co-discipline students should take the pharmacology comprehensive examination no later than one semester after completing their required co-discipline coursework.

Other Discipline-Specific Special Requirements

Additional Coursework

Students will be expected to complete at least three credit hours of statistics. Students are expected to take sufficient computer courses or training as to be proficient in word processing and the use of spread sheets and data bases.

Retention in Program

Graduate students are required to maintain a cumulative grade-point average of B (3.0 on a 4.0 scale). In any semester when the cumulative GPA falls below 3.0, the graduate student will automatically be placed on probation. The student is allowed one semester to return to good academic standing (cumulative GPA of 3.0). A graduate student should not let the cumulative GPA fall below 3.0 in two semesters throughout the entire program. Students who receive a grade of C in six credit hours or more, or who receive a grade lower than C, or one no-credit grade will be dismissed from the graduate school. Any C grade in courses offered by the pharmacology division should be repeated no more than once.

Appeals

For special requests or disputes concerning a student's Ph.D. program, written appeals with documentation must first be submitted to the student's supervisory committee. If a resolution of the problem cannot be obtained at the supervisory committee level, the written appeals process must then progress through the following levels:

1. Division Chair, pharmacology.
2. Graduate Programs Committee, School of Pharmacy.
3. Interdisciplinary Ph.D. Executive Committee.
4. Dean, School of Graduate Studies.

Comprehensive Examination Guidelines

The graduate school requires that a student demonstrate adequate intellectual mastery of the field of specialization and of appropriate co-discipline fields by passing a comprehensive doctoral qualifying examination before being admitted into candidacy for the Ph.D. degree. To satisfy this requirement the student must pass two parts of the comprehensive examination given by the supervisory committee within 6 months after full admission to the graduate study at UMKC.
The comprehensive examination must be taken before the beginning of the student’s third year after admission to full-time graduate study at UMKC. The comprehensive examination consists of both written and oral components. The format of the comprehensive examination consists of the writing and oral defense of a research proposal in the style of an NIH grant. This topic of the proposal is in an area distinct from the student’s intended dissertation project and approved by the committee in advance of the examination.

**Written Examination**

The written examination will consist of a National Institutes of Health (NIH) grant proposal including Specific Aims, Methods, and Research Design sections; budget pages are unnecessary. The content will integrate fundamental knowledge from both the primary discipline and co-disciplines. The written proposal must be submitted to the supervisory committee at least two weeks in advance of the oral portion of the examination.

**Oral Examination**

The oral examination shall consist of the student’s presentation of their grant to the supervisory committee in order that the committee can evaluate the student’s critical thought process and the student’s ability to develop and defend an original research proposal. The oral examination includes (1) questions covering the grant proposal prepared by the student for the written examination and (2) other related material in the student’s area of specialization, including fundamental knowledge of the primary discipline and co-discipline(s).

On satisfactory completion of the written and oral portions of the comprehensive examination, the student becomes a candidate for the Ph.D. In the event a student does not pass the examination, one additional attempt may be made at a date no sooner than 12 weeks, and within one year, of the original attempt. A student who fails either the written or the oral examination a second time will be automatically dropped from the program.

A student must pass the doctoral comprehensive examination and advance to Ph.D. candidacy within four years from the beginning of doctoral coursework (within three years if entering with a master’s degree in the same or closely related field). After the establishment of degree candidacy, a maximum of four years will be allowed for completion of degree requirements (three years for students with a master’s degree). Failure to complete the work within the periods specified will necessitate re-evaluation of the entire program and may result in a notice of termination.
Physics

Discipline Coordinators
Paul Rulis, (816) 235-5945, rulisp@umkc.edu
Mark Brodwin, (816) 235-2508, brodwinm@umkc.edu

Physics faculty who are members of the doctoral faculty.

Physics is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

**Note:** The discipline-specific requirements listed here are *in addition* to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

**Discipline-Specific Admission Requirements**
For admission to the program, an applicant must meet both the Interdisciplinary Ph.D. and specific physics admission requirements. The doctoral studies committee of the Department of Physics will review applications and make admission recommendations to the Interdisciplinary Ph.D. Executive Committee. The basic criterion for admission is the likelihood that an applicant will be successful in the Interdisciplinary Ph.D. program, particularly in the research component of the program. All applicants must satisfy the doctoral studies committee that they meet this criterion through such evidence as transcripts, letters of recommendation, statements of purpose, GRE scores (general and subject), performance on the department written examination, etc. Furthermore, a member of the doctoral faculty must be willing to accept the applicant as a research student. International students are required to have a TOEFL score of at least 550 (213 CBT) for admission and 575 (230 CBT) to be eligible for a teaching assistantship.

**Qualifying Requirements for Full Admission**
In addition to the above requirements, applicants must meet the following minimum requirements for the appropriate category listed below to be considered for full admission with physics as a discipline. The doctoral studies committee may recommend provisional admission for those applicants who fail to meet these requirements.

Applicants for admission to the Interdisciplinary Ph.D. program electing physics as their primary discipline must have a bachelor's or master's degree in physics or the equivalent. Those applicants holding only a bachelor's degree will be expected to provide exceptionally strong evidence of their academic ability and research capability in physics.

Applicants for admission to the Interdisciplinary Ph.D. program electing physics as their co-discipline must hold at least a bachelor's degree in a compatible field. These applicants must have successfully completed coursework in physics beyond a first (general or engineering physics) introductory course and must have mathematical background sufficient for advanced coursework in physics.

**Suggested Compatible Co-disciplines**
Computer science, mathematics, chemistry, geosciences, electrical and computer engineering, telecommunication and computer networking, curriculum and instruction, and engineering

**Core Program Requirements**
The credit hour requirement for Ph.D. students with physics as a discipline will depend on the student's entering status and individual program.

**Physics as a Primary Discipline**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYSICS 5500</td>
<td>Methods Of Mathematical Physics I</td>
<td>6</td>
</tr>
<tr>
<td>&amp; PHYSICS 5501</td>
<td>Methods Of Mathematical Physics II</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 5510</td>
<td>Theoretical Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYSICS 5520</td>
<td>Electromagnetic Theory And Applications I</td>
<td>6</td>
</tr>
<tr>
<td>&amp; PHYSICS 5521</td>
<td>Electromagnetic Theory And Applications II</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 5530</td>
<td>Quantum Mechanics I</td>
<td>6</td>
</tr>
<tr>
<td>&amp; PHYSICS 5531</td>
<td>and Quantum Mechanics II</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 5540</td>
<td>Statistical Physics I</td>
<td>3</td>
</tr>
</tbody>
</table>

Students with physics as their primary discipline must either complete these courses at UMKC or must have already completed equivalent coursework at approved institutions at the time of their admission to the Interdisciplinary Ph.D. program at UMKC.

**Physics as a Co-discipline**
Students are required to complete a minimum of three courses (9 credit hours) at the 300-level or above, from classes offered by the Department of Physics. At least three of these credit hours must be at the ‘5500+ level’. Labs, special topics and research courses do not satisfy any of the above
requirements. Students who receive a grade of B- or less in two or more courses used to satisfy these requirements will be disqualified from using Physics as their co-discipline. Other Discipline-Specific Special Requirements

Retention in Program
Ph.D. students with physics as their primary discipline must maintain a 3.25 grade-point average. Students with physics as a co-discipline must maintain a 3.0 GPA in physics courses. A student's failure to maintain the minimum GPA will result in a probationary status for the following semester. A failure to remove the GPA deficiency during the probationary semester will then result in the student's dismissal from the Interdisciplinary Ph.D. program.

Appeals
Exceptions to any of the discipline-specific regulations must be approved by the student’s supervisory committee and by the physics doctoral studies committee. In the event of disputes or special requests concerning a student's Ph.D. program, written appeals and/or documentation must first be submitted to the student’s supervisory committee. If a resolution of the problem cannot be affected at that level, the written appeals process must then progress through the following levels: (1) Doctoral studies committee of the Physics Department; (2) Interdisciplinary Ph.D. Executive Committee; (3) Dean of the School of Graduate Studies.

Interdisciplinary Ph.D. Examination Guidelines
Physics as Primary Unit

Departmental Written Examination (a.k.a. M.S. Comprehensive Exam, Ph.D. Qualifying Exam)
During January of each year, the Department of Physics and Astronomy will administer a written, M.S. Comprehensive/Ph.D. Qualifying examination of all M.S.-level physics students and Interdisciplinary Ph.D. students with physics as their primary discipline. The two-part examination will be given during two sessions (morning and afternoon) of four hours each on the first Saturday after the start of the Spring Semester. Each part of the examination will contain approximately eight questions at varying levels of difficulty (introductory to advanced undergraduate). The following subject areas will be addressed in the given order by the two examination sessions:

2. Quantum Mechanics and Thermodynamics.

Students may pass the written examination at the following ascending levels of achievement:

1. "M.S. Comprehensive" - necessary for the M.S. degree.
2. "Ph.D. Qualifying" - necessary for invitation to take the comprehensive examination in fulfillment of the Interdisciplinary Ph.D. program requirements.

Students need only pass the written examination once at any given achievement level. But, all graduate students must attempt the exam every year until they pass it at the appropriate level, unless they are granted an exception via a petition to the physics and astronomy faculty.

A maximum of two attempts at each level (M.S. Comprehensive, Ph.D. Qualifying) will be permitted, and any student who does not attempt the examination when required to do so will be deemed to have failed the examination on that attempt, unless they have been given prior permission to delay taking the exam. Students who are required to take this examination are encouraged to consult with the Department of Physics and Astronomy Graduate Advisor (http://cas.umkc.edu/physics/department/contacts.shtml) for detailed information concerning procedures and regulations for the examination.

Ph.D. Comprehensive Exam
Ph.D. seeking students who have passed the Departmental Written Exam at the Ph.D. qualifying level must pass a Ph.D. Comprehensive Exam to advance to Ph.D. Candidacy. The Ph.D. Comprehensive Exam consists of a proposal of the Ph.D. research topic written in the format of a National Science Foundation proposal narrative with an oral presentation to the student’s five-person Ph.D. committee. This exam should be completed within 12 months of completing the coursework and qualifying exam degree requirements. The exact timing and topic of this written and oral comprehensive exam will be determined by the student and their supervisory committee.

Defense of Ph.D. Dissertation
The dissertation defense administered by the student’s supervisory committee can be taken only after the student has passed their Ph.D. comprehensive exam. The defense may be oral, written, or both and it may include the student’s thesis or dissertation proposal and associated background material.

Physics as an Interdisciplinary Ph.D. Co-discipline
There are no formal qualifying or comprehensive examination requirements for students whose co-discipline department is Physics & Astronomy.
Political Science

Discipline Coordinator
Max J. Skidmore, (816) 235-2535, skidmorem@umkc.edu
Political Science faculty who are members of the doctoral faculty.

Note: The political science discipline is accepting applications for the co-discipline only.

Political Science is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

Discipline-Specific Admission Requirements

Political Science only accepts students as a co-discipline in the Interdisciplinary Ph.D. program.

Applicants who designate political science as a co-discipline must have earned at least a 3.0 GPA on a 4.0 scale in 12 or more hours in political science or closely related courses or otherwise demonstrate sufficient background in the discipline. Applicants must also submit samples of written work, including a one- or two-page preliminary proposal for an interdisciplinary plan of study and fulfill other requirements for full admission as determined by the political science doctoral faculty.

The political science doctoral faculty will recommend to the dean of the School of Graduate Studies whether or not an applicant should be admitted. It should be understood that a student who satisfies the criteria of the School of Graduate Studies and the requirements of the Department of Political Science may or may not be granted full admission to the Ph.D. program. Availability of faculty and resources will be among the factors determining admission.

Students who designate political science as a co-discipline but lack adequate preparation in political science may be admitted provisionally, pending completion of designated undergraduate courses in the discipline.

Suggested Compatible Co-disciplines
Economics, history, public affairs and administration, educational leadership, policy and foundations, and English.

Core Program Requirements
In general, students must take whatever specific courses are deemed necessary by their committees.

The amount of work required for the Ph.D. depends on the student's level of preparation. A student entering the Ph.D. program without an M.A. in political science may expect to do significantly more work than that required of a student with such a degree in hand.

Students with political science as their co-discipline must take at least 12 hours in political science as designated by their committees, but must include POL-SCI 5501 Seminar in American Government, POL-SCI 5530 Seminar in International Relations, and POL-SCI 5513 Seminar in Comparative Politics.

Requirements for Comprehensive Examinations
These examinations are given twice a year. Further information is available from the department.
Public Affairs and Administration

Discipline Coordinator
Arif Ahmed, (816) 235-2319, ahmedar@umkc.edu

Note: The Public Affairs and Administration discipline accepts applications for primary discipline admissions effective Fall semesters only and co-discipline admissions effective Fall and Spring semesters.

Public Affairs and Administration is a discipline in the Interdisciplinary Ph.D. Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

Overview

The Public Affairs and Administration (PAA) discipline in the Interdisciplinary Ph.D. program is designed to prepare students for research careers in universities, public and nonprofit agencies, healthcare institutions, or for other roles in which research training is needed. Successful applicants must show evidence of a strong interest and the ability to successfully engage in research and exhibit promise as skillful teachers. The PAA doctoral faculty supports the development of strong research capacities and requires all Ph.D. students to complete a significant supervised empirical research study for the dissertation.

Program

The Interdisciplinary Ph.D. program is comprised of coursework and research in at least two disciplines. The primary didactic effort will be in PAA and the student will select at least one secondary area of concentration (co-discipline) from other Interdisciplinary Ph.D. disciplines.

Duration

Both primary discipline and co-discipline students in PAA must complete all requirements for their degree within six years from the date of admission to the Ph.D. program. PAA primary discipline students must complete all coursework and pass disciplinary area and comprehensive examinations within the first three years of the aforementioned six year period. Under compelling circumstances and on the written recommendation of a majority of the supervisory committee, a single extension for up to one year may be requested for approval by the Dean of the School of Graduate Studies.

PAA primary discipline students may receive financial support (in the form of fellowships or graduate assistantships) from the Department of Public Affairs contingent upon satisfactory progress towards degree completion. Specific conditions of funding, if provided, will be enumerated in the offer letter; however, in most instances, such funding will be available only for the first three years in the program.

Discipline-Specific Admission Requirements

The PAA doctoral faculty will consider applications for admission to the primary discipline from only the applicants willing to pursue doctoral studies with full-time academic load (as defined in the current UMKC catalog).

All applicants (primary and co-discipline) are required to submit official scores for all three sections of the GRE General Test. Applicants must also submit official transcripts of coursework from all colleges and universities attended. Additionally, a narrative statement of interest, a writing sample, three letters of reference, and a résumé are required. Admission is based on an applicant’s overall record of academic achievement and the doctoral faculty’s judgment of the applicant’s likelihood of successfully completing the Ph.D. We expect that those admitted will have scored well on the GRE and have high GPAs.

Applicants should pay particular attention to the narrative statement that accompanies their application. The PAA doctoral faculty gives substantial weight to this statement. It should provide a clear description of the applicant’s intellectual interests, how those interests evolved and the research direction(s) the applicant intends to pursue. A good statement also discusses the fit between the applicant’s interests and the resources available at UMKC (for example, it might identify faculty with whom the applicant hopes to work). Narrative statements need not be limited to one page. Applicants should provide a sample of academic writing (such as an undergraduate or master’s thesis or a paper from a graduate seminar) that illustrates writing skills and the potential for scholarly work. Applicants are also encouraged to seek letters of recommendation from people who can address their potential for engaging in scholarly research.

The PAA doctoral faculty seeks to admit only students whose research interests fit the interests and capabilities of the doctoral faculty. We admit only students for whom a member of the doctoral faculty agrees to serve as interim advisor, and after the student’s plan of study is completed, that faculty member should also be willing to chair (for primary discipline students) or serve on the student’s supervisory committee. This requirement of commitment from a member of the PAA doctoral faculty applies to all applicants seeking admission to PAA as a primary or co-discipline. We strongly recommend that applicants communicate with PAA doctoral faculty about their interests and attempt to secure commitments from faculty to serve as PAA advisor and supervisory committee chair/member. Since applications are reviewed immediately following the respective application deadline, applicants should contact faculty by e-mail, telephone or in person before that time.
The primary discipline applicants should be available to appear (in person or via video conferencing) in front of the PAA PhD admissions panel for interview.

**Suggested Compatible Co-disciplines**

Biomedical and health informatics (p. 1242), entrepreneurship and innovation (p. 1273), educational leadership, policy and foundations, curriculum and instruction, economics, history, political science, social science consortium (p. 1304).

**Core Program Requirements**

The exact amount of coursework will be determined by the student’s level of preparation and as deemed necessary by the supervisory committee. The following are minimum requirements, exclusive of dissertation research credits.

**PAA as Primary Discipline**

The Interdisciplinary Ph.D. in PAA consists of a minimum of 34 credit hours coursework.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory enrollment in Doctoral Seminar in the first semester</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>PUB-ADM 5610</td>
<td>Inquiry In Public Administration And Affairs</td>
<td>3</td>
</tr>
<tr>
<td>PUB-ADM 5620A</td>
<td>Literature Of Public Affairs And Administration: Political Science</td>
<td>3</td>
</tr>
<tr>
<td>PUB-ADM 5620B</td>
<td>Literature Of Public Affairs And Administration:Organizational Theory &amp; Behavior</td>
<td>3</td>
</tr>
<tr>
<td>Two additional graduate courses (approved by the supervisory committee) in statistics and research methods in relation to the student’s likely dissertation topic</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

One or more of the following requirements may be waived or replaced, with the approval of the supervisory committee, by other PUB-ADM or HLTH-ADM courses if a student has previous course work that is substantially equivalent to any of the following courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUB-ADM 5525</td>
<td>Financial Accountability And Policy Development</td>
<td>3</td>
</tr>
<tr>
<td>PUB-ADM 5526</td>
<td>The Politics Of Administration</td>
<td>3</td>
</tr>
<tr>
<td>PUB-ADM 5530</td>
<td>Capstone Seminar In Public Administration</td>
<td>3</td>
</tr>
<tr>
<td>PUB-ADM 5541</td>
<td>Public Policy Development and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>PUB-ADM 5544</td>
<td>Program Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>PUB-ADM 5548</td>
<td>Leadership For Public Service</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>34</strong></td>
</tr>
</tbody>
</table>

**PAA as Co-discipline**

The PAA co-discipline consists of a minimum of 15 credit hours coursework.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Mandatory enrollment in Doctoral Seminar in the first semester</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>PUB-ADM 5610</td>
<td>Inquiry In Public Administration And Affairs</td>
<td>3</td>
</tr>
<tr>
<td>PUB-ADM 5620A</td>
<td>Literature Of Public Affairs And Administration: Political Science</td>
<td>3</td>
</tr>
<tr>
<td>Two additional graduate courses (approved by the supervisory committee) in PUB-ADM or HLTH-ADM</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

**Transfer Credit**

Transfer of graduate credit earned before entering the PhD program, including courses taken toward the Master of Public Administration degree at UMKC, will be evaluated on a case-by-case basis and will be approved at the discretion of the supervisory committee.

**Requirements for Comprehensive Examinations**

**Disciplinary Area and Comprehensive Examinations**

Before taking the comprehensive examination, students with PAA as their primary discipline must pass three “disciplinary area exams”. The exams are developed, administered and evaluated by committees of PAA doctoral faculty in each of the following areas: (1) public administration and policy analysis, (2) organizational studies, and (3) inquiry, research methods and statistics. The comprehensive examination for each PAA primary discipline student is developed, administered and evaluated by the student’s supervisory committee and is customized for the student. Co-discipline comprehensive examinations may be required as well and are determined by the requirements of the particular student’s co-discipline(s).
The comprehensive examination for students with PAA as their co-discipline consists of two areas: (1) public administration and policy analysis and (2) organization studies. The PAA examination is customized for each student and developed, administered and evaluated by the PAA faculty member(s) on the student’s supervisory committee.

**Dissertation**

To successfully complete the Ph.D. program each student must write a dissertation based on empirical research that constitutes a contribution to knowledge in their field of interest. Students with PAA as their primary discipline are expected to write dissertations that include some consideration of public management or public policy issues. The minimum number of hours for a doctoral dissertation with PAA as the primary discipline is 12, though some committees may require more.

Students with PAA as their primary discipline may, at the direction of their dissertation committee, complete a “traditional” dissertation or a “manuscript-based” dissertation. The general guidelines for each dissertation type are provided in the Public Affairs and Administration Doctoral Student Handbook.
Social Science Consortium

Discipline Coordinator
Doug Bowles, (816) 235-1394, bowlesdh@umkc.edu

Social Science Consortium is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

Discipline-Specific Admission Requirements
The Social Science Consortium (SSC) is only available as a co-discipline option, not as a coordinating-unit discipline, and has no discipline-specific admission requirements. It is the general policy of the SSC to admit all students who are admitted by their primary discipline. Newly admitted students are assigned to the SSC Coordinator as their faculty advisor, pending formation of their supervisory committee.

Suggested Compatible Primary Disciplines
Curriculum and instruction, economics, geosciences (p. 1274) (with a geography focus), history, political science, public affairs and administration, and educational leadership, policy and foundations. (p. 1260)

Core Program Requirements
The Social Science Consortium Program of Study requires 12 hours of dedicated coursework.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC-SCI 5610</td>
<td>Philosophy Of Social Science</td>
<td>3</td>
</tr>
<tr>
<td>SOC-SCI 5630</td>
<td>Seminar in Research Methodology</td>
<td>3</td>
</tr>
<tr>
<td>Select two 3-hour electives, to be approved by SSC advisor.</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Disciplinary graduate-level courses are, in general, eligible as electives. The following courses are pre-approved, though others may be approved by the student's SSC advisor: SOCIOL 5501, SOCIOL 5502, ECON 5511, ECON 5588, POL-SCI 5501, POL-SCI 5513, POL-SCI 5530, POL-SCI 5541, SOC-SCI 5521, SOC-SCI 5622, SOC-SCI 5690A

Sequencing is a very important consideration in the program of study listed above, complicated by the constraint that most courses fulfilling the program are offered only in either fall or spring semesters. It is highly recommended that students with the SSC as their co-discipline take SOC-SCI 5610 (offered fall semesters only) as early as possible, preferably in the fall semester of the first year.

SOC-SCI 5630 is designed to assist students with preparation of a defensible dissertation proposal, providing interdisciplinary integration of the SSC program of study with the student’s primary discipline. It is intended to be taken as the conclusion of both primary discipline and SSC program coursework.

Requirements for Comprehensive Examinations
In accordance with the School of Graduate Studies guidelines, comprehensive exams are administered on an individual basis by the members of each student's dissertation committee. Committees are required to have at least one member drawn from the co-discipline. SSC faculty representatives on each student’s committee participate in administration of the comprehensive exam.
Discipline Coordinator
Deep Medhi, (816) 235-2006, dmedhi@umkc.edu
Telecommunication and Computer Networking faculty who are members of the doctoral faculty.

Telecommunication and Computer Networking is a discipline in the Interdisciplinary Ph.D. (p. 1225) Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

Discipline-Specific Admission Requirements
A student who meets the minimum discipline requirements stated below will be considered for regular admission to the Ph.D. program. A student who does not meet some of the requirements but shows high potential for advanced-level work may be considered for provisional admission. Admission also depends on factors such as number of seats available, resources available in the area of student's interest, the quality of previous work, etc. A student not qualifying for admission to the Ph.D. program may be considered for admission to the M.S. computer science or electrical engineering program. Requirements for admission are similar whether the applicant is requesting telecommunication and computer networking as the primary discipline or co-discipline.

Academic Preparation
The applicant must have a bachelor's degree in computer science, computer engineering, electrical engineering, or related field requiring substantial training in at least one of the above fields and in mathematics with a GPA of 3.5 or better on a 4.0 scale, cumulative as well as in the major field. A master's degree is preferred for admission.

Aptitude for Advanced Work
The student must demonstrate an aptitude for advanced-level work through national/international standardized examinations such as the GRE. The expected performance level is the 85th percentile in the quantitative portion of the GRE examination.

Proficiency in English
The student must demonstrate his or her proficiency in oral and written communication in English through national/ international standardized English examinations such as TOEFL, verbal portion of the GRE, etc. The expected proficiency level is the 50th percentile in the verbal portion of the GRE or a TOEFL score of at least 550 on the paper-based test or 213 on the computer-based test. For tests taken after Sept. 26, 2005, the minimum required score is 80. UMKC students may also satisfy this requirement by obtaining an English Proficiency Certification from the English Department. Note: As per University policy, all international students are tested for proficiency in English upon arrival on campus, irrespective of their scores in TOEFL or verbal portion of GRE, or any other test. A student's advisor may also require the student to take the above test, irrespective of the student's native language. As a result of this test, the student may be required to improve his or her oral and written communication in English before enrollment in the courses of the chosen disciplines.

Recommendations
The student must provide at least three recommendation letters from the professors from his or her previous institution(s). If the applicant has been out of school for several years, recommendation letters from his or her supervisors (technical) will be acceptable. However, even in this situation, a recommendation letter from his or her last academic institution is highly recommended. A recommendation from a faculty member in the Computer Science Electrical Engineering (CSEE) Department at UMKC must be provided if the student has taken courses from or worked with the CSEE faculty.

Statement of Goals and Objectives
The applicant must provide a 250- to 500-word essay on his or her goals and objectives of pursuing the Ph.D. in the chosen fields.

Admission at an Advanced Level
An applicant who has already completed significant graduate coursework (15 or more semester hours of the post-master's work or 30 or more hours of the post-bachelor's work) toward a Ph.D. at another institution must provide reasons for changing institutions. The applicant must also provide a letter of endorsement from a doctoral faculty member in telecommunication and computer networking indicating willingness to be the student's research advisor.

Alternate Admission Criteria
The applicant may have received a bachelor's degree or a master's degree in computer science, computer engineering, electrical engineering or electronics or any other related field with substantial training in mathematics. An applicant not meeting the minimum admission requirements, or not having sufficient academic preparation (stated below under prerequisite knowledge) for advanced work in the chosen discipline(s), may be considered for provisional admission by the CSEE Department's Ph.D. committee if the committee sees high potential for advanced work from the rest of the applicant's credentials. Evidence of high potential might be pertinent work experience, published papers or extremely high achievement in related...
areas. In any case, the required GPA (or GPAs) must be at least 3.0. Applicants with an established research or publication record in a quantitative science are encouraged to apply to this discipline.

**Qualifying Requirements for Full Admission**

**Prerequisite Knowledge**

A Ph.D. student selecting telecommunication and computer networking as the primary discipline is expected to have the level of preparation represented by the following courses before attempting advanced study. Every student must have coursework in mathematics at MATH 250 or above level, and at least four of the following course sequences (or their equivalent):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP-SCI 291</td>
<td>Discrete Structures II</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 303</td>
<td>Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 404</td>
<td>Introduction to Algorithms and Complexity</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 330</td>
<td>Electronic Circuits</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 380</td>
<td>Signals and Systems</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 394R</td>
<td>Applied Probability</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 420</td>
<td>Introductory Networking and Applications</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 421A</td>
<td>Foundations of Data Networks</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 477</td>
<td>Introduction to Wireless Networking</td>
<td>3</td>
</tr>
<tr>
<td>COMP-SCI 431</td>
<td>Introduction to Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 474</td>
<td>Introduction to Communication Systems</td>
<td>3</td>
</tr>
<tr>
<td>E&amp;C-ENGR 426</td>
<td>Microcomputer Architecture and Interfacing</td>
<td>3</td>
</tr>
</tbody>
</table>

A Ph.D. student selecting telecommunication and computer networking as a co-discipline is required to have at least three of the CS/ECE courses listed above.

**Length of Time to Complete Qualifying Requirements**

When a student is admitted provisionally, the CSEE Ph.D. committee will specify, and the UMKC Interdisciplinary Executive Committee will confirm, the conditions and length of time available to satisfy conditions to achieve regular-admission status.

**Suggested Compatible Co-disciplines**

Computer Science, electrical and computer engineering, mathematics, physics, engineering (p. 1268) (civil and mechanical focus), geosciences and economics. A co-discipline outside of this list may be considered only in exceptional cases.

**Core Program Requirements**

The amount of work required for the Ph.D. depends on the student's level of preparation. For example, a student entering the Ph.D. program after earning a bachelor’s degree may expect to do significantly more work compared to a student who enters after earning a master's degree.

**Qualifying and Comprehensive Examination Guidelines**

The Qualifying Exam is a written test administered by the CSEE Department's Ph.D. committee. The test questions are from a set of fundamental courses spanning computer science, electrical and computer engineering, and telecommunication and computer networking. The Comprehensive Exam is administered by the doctoral committee of the candidate. A student can either take a written test or opt for an oral presentation covering both primary discipline and co-discipline areas. Discussion with and agreement from the student's doctoral committee is required before choosing the best option.

The candidates should contact the CSEE Division office and the chair of their doctoral committee for more information.

**Telecommunication and Computer Networking as a Co-Discipline**

The number of hours required for a student who chooses telecommunication and computer networking as a co-discipline will be at least 12 graduate credit hours. Up to three of these credit hours may be at the 400-level. Each student is required to take CSEE 5110 as part of the minimum 12 credit hours. Contact the Discipline coordinator for the list of approved courses.

**Financial Aid**

Various forms of financial aids (such as graduate research assistantships, graduate teaching assistantships, graduate fellowships) are available through the Computer Science and Electrical Engineering Department and the School of Graduate Studies. Contact the discipline coordinator for more information.
Honors College

The UMKC Honors College seeks to attract exceptionally motivated and academically talented undergraduates from every school and college at the University to participate in an environment that encourages excellence and challenges students to realize their greatest potential.

The UMKC Honors College is designed to enrich the college experience of the most outstanding students through the integration of traditional and novel approaches to learning from the humanities, the behavioral and social sciences, the natural and physical sciences and other divisions of the University.

Honors Credit

In order to accomplish these goals, all honors students have the opportunity to enroll in a wide variety of honors courses offered each semester. Honors credit may also be earned through:

- Independent study
- Undergraduate research
- Honors contracts
- Honors discussion groups
- Senior Honors Thesis or Project
- Study Abroad

Honors students are encouraged and supported in the conduct of research and the publication and presentation of their work regionally and nationally. As seniors, honors students have the option to complete a six-credit-hour project, the Senior Honors Thesis/Project. Upon graduation, those who complete an honors thesis in addition to the basic honors requirements are designated as Honors Scholars.

Honors College Initiatives

UMKC offers a supportive atmosphere to encourage integrative thinking through an exciting Living-Learning Community and specialized advising with the Honors College Advisor and Honors Faculty Fellows. Leadership skills are honed through unique seminars where students reflect on and
analyze their community service experiences. Finally, with an eye toward giving students a leg up on their graduate school and career goals, honors students are strongly encouraged to conduct innovative individual and collaborative research or artistic activity in the form of the Senior Honors Thesis/Project.

Some of the other advantages that the UMKC Honors College offers students include:

- Priority enrollment during advance registration
- Specially designated general education courses for honors students
- Graduate-level borrowing privileges at Miller Nichols Library
- Individual advising to prepare honors students to compete for prestigious national scholarships (such as the Rhodes, Marshall, Truman and Goldwater Scholarships).

**Admission to the Honors College**

To be considered for admission, a first-year student should:

- minimum ACT composite score of 28 or a combined verbal and math SAT score of 1260, and
- have a minimum cumulative high school GPA of 3.5 in the core (17-unit) curriculum, consisting of English (4 years), math (4 years), science (3 years), social studies (3 years), foreign language (2 years of the same language) and fine arts (1 year).

Students who do not meet these criteria may apply for admission to the Honors College and will be considered on an individual basis. For incoming first-year students, a total of 27 hours of honors credit is required to receive a bachelor’s degree with University Honors.

Transfer students must meet at least one of the following criteria:

- All of the admission criteria for first-year students as stated above; or
- college-level GPA of 3.7 or above; or
- participation in the Honors program at their previous college or university.

Continuing UMKC students are encouraged to apply to the Honors College. Students currently enrolled at UMKC must have a UMKC cumulative GPA of 3.5 or above.

For transfer and continuing students, a total of 24 hours of honors credit is required if the student enters the Honors College with more than 25 credits but less than 50, and a total of 21 hours of honors credit is required if the student enters the Honors College with 50 or more credits. Transfer students may count up to 9 credits of honors coursework completed at their previous college or university in fulfillment of University Honors requirements.

The above-mentioned admission requirements are “target criteria.” While priority consideration will be given to students who meet or exceed the requirements, the Honors College Admissions Committee takes into consideration the totality of each student’s application, with emphasis on academics and civic engagement. UMKC wants Honors College students who will be leaders in the classroom and in all aspects of campus and community life. Accordingly, even if you do not meet these criteria, please feel free to apply for admission to the Honors College. Applications are especially encouraged from students who have a strong record of community engagement and are highly motivated to succeed academically.

The Honors College application may be found at the Honors website: http://honors.umkc.edu/. Priority deadline for applications is March 15 for the fall semester and October 31 for spring semester. Applications submitted after these priority deadlines may also be considered on a space-available basis. The final application deadline is August 1 for fall semester and November 30 for spring semester.

**Continued Participation in the Honors College**

Honors students are required to maintain a minimum cumulative grade-point average of 3.2. Students whose cumulative grade-point average drops below a 3.2 have a one-semester grace period during which time they can remain in the Honors College while they work on bringing their cumulative grade-point average above the 3.2 minimum. If, at the end of the grace period, the student’s grade-point average is still below a 3.2, the student will be dropped from the Honors College.

**Honors Living-Learning Community**

The UMKC Honors College, in collaboration with Residential Life, sponsors the Honors Living-Learning Community. Located in UMKC’s Oak Street Hall, this community of honors students has the opportunity to live and learn together through cohort classes, special programs and events, informal interaction with UMKC faculty, social activities and community service. The Honors Living-Learning Community is designed to build cohesive community among the honors students, promote student and faculty engagement, and provide continuity of the intellectual learning experience beyond the classroom.

**Lucerna, the Honors College Undergraduate Research Journal**

The Honors College produces *Lucerna*, UMKC’s only research journal open to papers written by UMKC undergraduates. The honors student editors oversee all aspects of production of the journal, from soliciting submissions to editing the chosen papers. *Lucerna* is published annually.
Kauffman School Partnership

Beginning in Fall 2011, the UMKC Honors College joined in partnership with a local charter school, the Ewing Marion Kauffman School (http://www.kauffmanschool.org/Home.aspx), to create and develop an opportunity for students from both institutions to engage in intellectual growth and creative collaboration. Students in the Honors College look forward each semester to working with the Kauffman School, promoting the educational and social opportunities available to Kauffman students. The Honors College provides UMKC students with two options: work-study positions for students who are eligible and wish to work extensively (15 to 20 hours per week) at the Kauffman School, and volunteer positions for students who wish to help lead after-school clubs.

Study Abroad

Students in the UMKC Honors College are strongly encouraged to spend a summer, a semester or a year studying in a foreign country. Taking classes and living abroad is one of the most personally and intellectually fulfilling experiences a student can have while an undergraduate. Every summer, the Honors College organizes a summer study abroad program in Ireland, Scotland, or Sweden; however, in consultation with the administration of the Honors College, students can earn honors credit by participating in any study abroad program. Visit International Academic Programs (http://info.umkc.edu/international/study-abroad) for complete information on all study abroad opportunities at UMKC.

SEARCH: Students Engaged in Artistic and Academic Research

Honors students completing the senior honors thesis or undergraduate research project are encouraged to present their findings at the annual SEARCH Symposium for Research and Creative Achievements. The purpose of this symposium is to display and celebrate undergraduate participation in outstanding research and other creative endeavors. Presentations may be in the form of poster presentations or other performance media displaying creative works. For more information, see the SEARCH (http://www.umkc.edu/searchsite) website.

Faculty

James McKusick
Professor of English
Honors College Dean
B.A. (Dartmouth College); M.A., M.Phil., Ph.D. (Yale University)
Contact Information

Gayle A. Levy
Associate Professor of French
Honors College Director
A.B. (University of California-Berkeley); M.A. (Johns Hopkins University); Ph.D. (Duke University)
Contact Information

John Herron
Associate Professor and Chair of History
Honors College Associate Director
B.A., M.A. (Montana State University), Ph.D. (University of New Mexico).
Contact Information

Henrietta Rix Wood
Associate Teaching Professor in the Honors College
B.A. (Southern Methodist University); M.A., Ph.D. (University of Missouri-Kansas City)
Contact Information

Stephen Christ
Assistant Teaching Professor in the Honors College
B.A., M.A. (University of Central Missouri); Ph.D. (University of Missouri)
Contact Information

Jessica Magana
Assistant Teaching Professor in the Honors College
B.A. (Kansas State University); M.S. (Emporia State University); Ph.D. (Oklahoma State University)
Contact Information

2 Members of UMKC Graduate Faculty
3 Members of UMKC Doctoral Faculty
Undergraduate
University Honors Requirements

Students must complete 27 hours of honors coursework to earn the University Honors distinction. Students must earn a grade of "B" or better in an honors course in order for it to count in fulfillment of University Honors requirements. A minimum cumulative grade-point average of 3.2 is required to graduate with University Honors.

Transfer students and currently enrolled UMKC students who enter the Honors College with 25-50 university credits will need 24 hours of honors credit to earn the University Honors distinction. If a student enters the Honors College with more than 50 hours, they will need 21 hours of honors credit to earn the University Honors distinction. Transfer students may count up to 9 credits of honors coursework completed at their previous college or university in fulfillment of University Honors requirements.

The following courses are recommended, but not required, for all Honors College students. In addition to the courses listed below, students can also earn honors credits through honors-only seminars, departmental honors courses, study abroad, honors contracts, graduate courses, and honors discussion groups (in chemistry, biology, French, Spanish, German, accounting, etc.).

Freshman Year (15 hours)

Fall Semester

• Honors Anchor 1 (Reasoning and Values): 3 credits
• Honors Discourse H100 or Honors Focus C (Human Actions, Values and Ethics): 3 credits

Spring Semester

• Honors Anchor 2 (Culture and Diversity): 3 credits
• Honors Discourse H200: 3 credits
• Honors Focus A (Arts and Humanities): 3 credits

Sophomore Year (12 hours)

Fall Semester

• Honors Anchor 3 (Civic/Community Engagement): 3 credits
• Honors Discourse H300: 3 credits
• Honors Elective, such as Honors 391: Special Topics or Honors 490: Special Topics: 3 credits

Spring Semester

• Honors Focus B (Scientific Reasoning and Quantitative Analysis): 3 credits

OR

• Honors Elective, such as Honors 391: Special Topics or Honors 490: Special Topics: 3 credits

Junior and Senior Years (variable credit)

• Beyond the Classroom Experience - recommended but not required
  • The Beyond the Classroom (BTC) Experience could be an internship, practice teaching, undergraduate research, or a community engagement project. Up to 6 academic credits earned in BTC Experiences may be counted in fulfillment of the 27 hours of coursework needed to earn the University Honors distinction.
• Graduate Courses - recommended but not required
  • Up to six credits of graduate-level coursework may be counted toward the University Honors distinction.
• Study Abroad - recommended but not required
  • Two thirds of the credits earned in a non-honors study abroad program may be counted toward the University Honors distinction. Honors College study abroad programs are counted as regular honors credits and do not fall under the two-thirds rule.

Honors Scholar Requirements

All Honors College students are encouraged to undertake a six-credit Senior Honors Thesis in their senior year. The Senior Honors Thesis should be a research paper or project in the student's major discipline that is completed under the supervision of a faculty mentor. Upon graduation, those students who complete an honors thesis in addition to the University Honors requirements are designated as Honors Scholars.

The Senior Honors Thesis is normally completed over three semesters, starting with a preparatory seminar in spring semester of the junior year. Students are invited to select their own thesis topic, which will involve in-depth research with a faculty mentor. All senior honors thesis coursework
must be completed with a course grade of B or better. See the senior honors thesis guidelines (http://honors.umkc.edu/academics/senior-honors-thesis) for additional information.

The Honors Scholar distinction requires a minimum of six credits of honors thesis or independent research project coursework in addition to the 27 credits required for the University Honors distinction. The following course sequence is recommended for Honors College Thesis projects.

**Junior and Senior Years (6 hours)**

- Honors Thesis or Project
  - Junior Year: (Spring) Honors 330 Senior Honors Thesis/Project Practicum (1 credit)
  - Senior Year: (Fall) Honors 495 Senior Thesis independent study (2 credits)
  - Senior Year: (Spring) Honors 499 Senior Thesis/Project Writing Group (1 credit)
  - Senior Year: (Spring) Honors 495 Senior Thesis independent study (2 credits)

**Tools for Planning and Fulfilling Academic Requirements**

The UMKC General Education Core (http://catalog.umkc.edu/undergraduate-academic-regulations-information/general-education-requirements) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (http://catalog.umkc.edu/undergraduate-academic-regulations-information/general-education-requirements) section of the catalog. Honors sections are available for many of these General Education courses.

UMKC’s Major Maps (http://www.umkc.edu/majormaps) are detailed, semester-by-semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the Honors College advisor.

UMKC’s Degree Audit System (http://www.umkc.edu/registrar/majors-degrees/dars.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

**Courses**

**HONORS 100 First Year Seminar Credit: 1**
This course is designed to assist first-year students to be exceptional fellowship and graduate/professional school applicants. Students will hone their communication and critical thinking skills and learn how to create supportive relationships with faculty members. Additionally, students will learn about the academic resources available to them at UMKC.

**HONORS 101 Freshman Honors Colloquium Credit: 1**
This one hour interdisciplinary course is designed to foster a shared intellectual community among the Honors College members. Guest lecturers from UMKC and the greater Kansas City region will speak on a given theme, to change from year to year.
**Prerequisites:** Admission into the Honors College.

**HONORS 102 Freshman Honors Colloquium Credit: 1**
This one hour interdisciplinary course is designed to foster a shared intellectual community among the Honors College members. Guest lecturers from UMKC and the greater Kansas City region will speak on a given theme, to change from year to year.
**Prerequisites:** Admission into the Honors College.

**HONORS 201 Sophomore Honors Colloquium Credit: 1**
This one hour interdisciplinary course is designed to foster a shared intellectual community among the Honors College members. Guest lecturers from UMKC and the greater Kansas City region will speak on a given theme, to change from year to year.
**Prerequisites:** Admission into the Honors College.

**HONORS 202 Sophomore Honors Colloquium Credit: 1**
This one hour interdisciplinary course is designed to foster a shared intellectual community among the Honors College members. Guest lecturers from UMKC and the greater Kansas City region will speak on a given theme, to change from year to year.
**Prerequisites:** Admission into the Honors College.

**HONORS 210 Reading the World Credits: 3**
An intensive reading, research and writing course surveying world literature from 500 BCE to 1600 CE. The course will cover a range of authors, genres, and cultural traditions, which may include epic, lyric poetry, prose, drama, and historical, political, and religious writing.
**Prerequisites:** Honors College Student, or a 3.5 GPA or higher, or a 28 ACT score or higher.

**HONORS 215 Researching Kansas City Credits: 3**
Researching Kansas City is an interdisciplinary undergraduate research course open to honors and other high-achieving students. It will introduce students to scholarly research and analysis through the exploration of important issues of the past and present in Kansas City.
**Prerequisites:** Honors College Student, or a 3.5 GPA or higher, or a 28 ACT score or higher.
HONORS 230 Honors American Government Credit: 3
This course will analyze the structure and operation of American government. Major topic areas include the historical development of American democracy, mass political behavior, political institutions, public policy, and their connections. The US and Missouri Constitutions provide a framework for the course and are examined in-depth throughout the class.
Prerequisites: Honors student, or a 3.5 GPA or higher, or a 28 ACT score or higher.

HONORS 301 Junior Honors Colloquium Credit: 1
This one hour interdisciplinary course is designed to foster a shared intellectual community among the Honors College members. Guest lecturers from UMKC and the greater Kansas City region will speak on a given theme, to change from year to year.
Prerequisites: Admission into the Honors College.

HONORS 302 Junior Honors Colloquium Credit: 1
This one hour interdisciplinary course is designed to foster a shared intellectual community among the Honors College members. Guest lecturers from UMKC and the greater Kansas City region will speak on a given theme, to change from year to year.
Prerequisites: Admission into the Honors College.

HONORS 330 Senior Honors Thesis/Project Practicum Credit: 1
This one hour interdisciplinary course is designed to foster a shared intellectual community among the Honors College members. Guest lecturers from UMKC and the greater Kansas City region will speak on a given theme, to change from year to year.
Prerequisites: Admission into the Honors College.

HONORS 350 Honors Tutorial Credit: 3
A particular subject normally not offered through regular courses. May be repeated for credit when the topic changes. Open to members of the Honors College and students who meet Honors College admissions criteria and/or with permission of instructor.
Prerequisites: Admission to the Honors College.

HONORS 391 Special Topics Credit: 1-3
A particular subject normally not offered through regular courses. May be repeated for credit when the topic changes. Open to members of the Honors College and students who meet Honors College admissions criteria and/or with permission of instructor.

HONORS 401 Senior Honors Colloquium Credit: 1
This one hour interdisciplinary course is designed to foster a shared intellectual community among the Honors College members. Guest lecturers from UMKC and the greater Kansas City region will speak on a given theme, to change from year to year.
Prerequisites: Admission into the Honors College.

HONORS 402 Senior Honors Colloquium Credit: 1
This one hour interdisciplinary course is designed to foster a shared intellectual community among the Honors College members. Guest lecturers from UMKC and the greater Kansas City region will speak on a given theme, to change from year to year.
Prerequisites: Admission into the Honors College.

HONORS 490 Special Topics Credit: 1-3
A particular subject normally not offered through regular courses. May be repeated for credit when the topic changes. Open to members of the Honors College and students who meet Honors College admissions criteria and/or with permission of instructor.
Prerequisites: Admission into Honors College.

HONORS 495A Senior Thesis-Criminal Justice and Criminology Credit: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495AA Senior Thesis Anthropology Credit: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495B Senior Thesis-Art History Credit: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495C Senior Thesis Biology Credit: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.
HONORS 495D Senior Thesis-Chemistry Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495E Senior Thesis-Communication Studies Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisite: Departmental consent.

HONORS 495EE Senior Thesis-Electrical and Computer Engineering Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495F Senior Thesis-Economics Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495G Senior Thesis-English Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495H Senior Thesis-Foreign Languages Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495I Senior Thesis-Geosciences Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495J Senior Thesis-History Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495L Senior Thesis-Mathematics Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495M Senior Thesis - Business Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495ME Senior Thesis-Medicine Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495N Senior Thesis-Philosophy Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495NH Senior Thesis-Health Sciences Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.
HONORS 495 NN Senior Thesis-Nursing Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495 O Senior Thesis-Political Science Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495 P Senior Thesis-Psychology Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495 Q Senior Thesis-Sociology Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495 R Senior Thesis-Theatre Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495 S Senior Thesis-Education Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495 U Senior Thesis-Classics/Ancient Studies Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495 V Senior Thesis-Physics Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495 X Senior Thesis-Music Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 496 Honors Internship Credits: 1-6
This course is an academic internship that requires written assignments in addition to the work performed in a professional workplace. Internships are individually arranged with the sponsoring organization, which may be a business, school, nonprofit agency or government office. Academic credit may range from 1 to 6 credit hours (for 0 credit hours see HONORS 496 A). There will be a Learning Agreement established in the first week of the semester that states the contractual responsibilities of the student, the workplace supervisor and the internship coordinator.

HONORS 496 A Honors Internship Credits: 0
This course is an academic internship that requires written assignments in addition to the work performed in a professional workplace. Internships are individually arranged with the sponsoring organization, which may be a business, school, nonprofit agency or government office. Academic credit for this course is 0 credit hours (for variable 1-6 credit hours see Honors 496). There will be a Learning Agreement established in the first week of the semester that states the contractual responsibilities of the student, the workplace supervisor and the internship coordinator. This Learning Agreement will outline the job responsibilities, workload expectations, assignments and anticipated learning outcomes of the internship experience.

HONORS 499 Senior Thesis/Project Writing Group Credit: 1
This course is open to honors students and high-achieving students who are working on senior theses, projects, or capstone papers. The group meets twice a month to offer peer response to the work of members, who set goals and deadlines for producing their theses or projects. A faculty member of the Honors College advises the group. Non-honors students who meet the Honors College admission criteria may receive permission to enroll.
School of Law

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This catalog covers the academic programs of the School of Law. Prospective students should be aware that the School reserves the right to make changes in admission requirements and other specifications in the catalog. All statements in this publication are announcements of present policies only and are subject to change at any time without prior notice. They are not to be regarded as offers to contract.

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1 Associate or Adjunct Graduate Faculty
2 Members of UMKC Graduate Faculty
3 Members of UMKC Doctoral Faculty
4 Located at UM-St. Louis campus

Courses

LAW 8501 Contracts I Credits: 3
Formation and performance of simple contracts; consideration; express and constructive conditions, excuse of conditions; remedies for breach; contracts for benefit of third parties; assignment; impossibility of performance and discharge.

LAW 8502 Contracts II Credits: 3
Prerequisites: LAW 8501.

LAW 8511 Torts Credits: 3
Wrongs to the person and to property; legal remedies through which compensation or other relief may be obtained.

LAW 8513 Defamation, Privacy, Relational & Emotional Torts Credits: 2-3
A focus on word torts, emotional injuries, and torts stemming from relational duties of care. Defamation topics covered will include private and public official and public figure plaintiffs, as well as tactical aspects of defamation actions and privileges. Privacy torts explored will be false light, public disclosure of private facts, intrusion and seclusion, and appropriation of name or likeness. The majority of the course will involve coverage of special or limited duties of care arising from contractual or professional relationships (such as medical and legal malpractice), landowner liability, sexual harassment in employment, familial and governmental immunities, prenatal injuries, negligent infliction of emotional distress, as well as theories of vicarious liability for the torts of others.
LAW 8521 Civil Procedure I Credits: 3
Pleading; joinder of parties and claims; pre-trial motions; discovery; summary judgment; pre-trial and trial procedure; post trial motions.

LAW 8522 Civil Procedure II Credits: 2-3
Court systems; personal jurisdiction and venue; federal jurisdiction; choice of law; preclusion; appellate procedure

LAW 8522D Discovery Practice in Civil Litigation Credits: 1-3
This course focuses on the various discovery techniques which are commonly used in federal civil practice, and also compares state procedures. General topics include the uses of discovery, informal discovery, building the discovery plan, ethical issues, privileges and protections, the discovery tools, electronic discovery, experts, motions to compel discovery, and sanctions.

LAW 8522E Electronic Discovery Credits: 1-2
Discovery practice and laws related to electronically stored information in litigation.
Prerequisites: Civil Procedure I II.

LAW 8522L Civil Procedure Skills Lab Credits: 1-3
Students are trained in practical skills necessary for pre-trial litigation, including client interviewing and drafting pre-trial documents such as pleadings.
Prerequisites: LAW 8521 (or co-requisite).

LAW 8531 Lawyering Skills I Credits: 3
Introduction to legal reasoning; case analysis and synthesis; case research; structure and style in legal writing with emphasis on expository writing, including office memoranda.

LAW 8531I Common Law, Legal Analysis & Writing Credits: 3
Introduction to legal reasoning; case analysis and synthesis; case research; structure and style in legal writing with emphasis on expository writing, including office memoranda.

LAW 8532 Lawyering Skills II Credits: 2-3
Introduction to advocacy; introduction to interviewing, counseling and negotiation; statutory and computerized research; writing to and on behalf of a client, including a trial or appellate brief; oral advocacy.

LAW 8532I Introduction to American Legal Skills Credits: 2-3
Introduction to oral and written advocacy; interviewing, counseling and negotiation; and alternative dispute resolution.
Prerequisites: LL.M. students.

LAW 8532R American Legal Research Credit: 1
Introduction to research resources in the U.S. and techniques to systematically process and solve basic research problems found in law practice.

LAW 8541 Property I Credits: 3
Introduction to the nature of property; basic personal property law; adverse possession; possessory estates; basic future interests; marital and concurrent interests; landlord-tenant relationships.

LAW 8542 Property II Credits: 3
Licenses, easements, real covenants, equitable servitudes; nuisances; basic water law; brokerage; financing, mortgages, deeds of trust; contract of sale, deeds, closing; title insurance, warranties; recording; eminent domain; zoning.

LAW 8552 Federal Taxation Credits: 3
Theory, history, and principles of federal income taxation; basic concepts of income, classification of income and deductions.

LAW 8590 Special Topics Credits: 1-6
The study of a contemporary topic of interest. This course is designed to facilitate one of two purposes: an initial offering of a new course (prior to formal approval) or an initial and possible only offering of new topics.

LAW 8601 Business Organizations Credits: 3
Partnership, limited liability company and corporation law; choice of business forms, formation of partnerships, limited liability companies and corporations; rights, duties, and powers of partners, members, shareholders, directors, and officers; closely held corporations; proxy regulation; derivative suits; dividends and stock redemptions; introduction to the Securities Act of 1933 and Securities Exchange Act of 1934.

LAW 8601C International Criminal Tribunals Credit: 1
This course will examine the types of international criminal tribunals available for the prosecution of individuals accused of war crimes, the crime of aggression, crimes against humanity, and genocide. The course will begin with an introduction to the history of international criminal law and a comparative examination of various international criminal tribunals, including the Nuremberg trials, ad hoc criminal tribunals (ICTY and ICTR), the permanent International Criminal Court in The Hague, and hybrid criminal tribunals (Cambodia, Lebanon, and Sierra Leone). The course will then focus more specifically on the International Criminal Court (ICC), including the ICC’s formation and jurisdiction and examples of individuals and situations investigated and prosecuted thus far by the court.
Prerequisites: Part of the Ireland Law Program.
LAW 8601L Transactional Lawyering Skills Lab Credits: 1-2
Students are trained in counseling clients and negotiating business formation, dissolution, and liability issues as well as drafting appropriate documents.
Co-requisites: LAW 8601.

LAW 8601R Doing Business In Ireland, Part I Credit: 1
A survey of International Trade Law and European and American Competition Law that impact on American multinational companies operating in the Republic of Ireland.

LAW 8601S Doing Business in Ireland, Part II Credits: 0.5
A survey of the Ireland Company Law and comparative United States Corporate Law and a survey of United States corporate taxation of multinational companies operating in Ireland.

LAW 8602 International Field Experience Credits: 1-2
In connection with relevant coursework, this limited international field experience will permit students to visit a foreign country to see the application of their coursework in a comparative perspective, including tours of legal facilities, visits with experts from the host country, and service learning opportunities.
Prerequisites: Permission of instructor and designated accompanying coursework.

LAW 8603 Taxation Of Business Organization Credits: 2-3
Survey course of the taxation of business enterprises, particularly partnerships, corporations and subchapter S corporations.
Prerequisites: LAW 8552, LAW 8601.

LAW 8605 Antitrust And Fair Competition Law Credits: 2-3
This course examines fair competition law as a body of law designed to protect consumers. Understanding fair competition law requires looking at Supreme Court case law but also lower court decisions, economic analysis, and government enforcement guidelines and policy statements.

LAW 8609 Ethical Issues In Family Law Representation Credits: 1-2
Advanced study of the ethical obligations of public and private attorneys in estate, family, and juvenile law representation. Topics may include identification of the client, ethical and legal obligations of confidentiality and disclosure, competence and client communication, respect for third persons (particularly obligations toward children of clients) and other related subjects. Paper and presentation required. When offered for 2 credit hours, the course fulfills the Schools Professional Responsibility graduation requirement.
Prerequisites: (or concurrent) LAW 8611, LAW 8751.

LAW 8611 Estates And Trusts Credits: 3-4
Intestate succession; testamentary dispositions; execution, modification, and revocation of wills; will contests; advancements, ademption, and exoneration; family allowances; rights of estate creditors; express, implied, resulting, and constructive trusts; basic tax aspects of estates and trusts; rule against perpetuities; will substitutes.

LAW 8611L Estates and Trusts Lab Credits: 1-3
This experiential course applies the knowledge acquired in the basic Estates and Trusts course to the process of gathering, evaluating, planning, drafting, and executing an estate plan in a non-tax environment.
Prerequisites: LAW 8611 Estates and Trusts; Law 8541 Property I; Law 8542 Property II.

LAW 8613I Estate Planning Internship Credits: 1-4
Students are assigned to attorneys at law firms or trust departments and will work on estate planning projects assigned by the supervising attorney. Exams may include drafting will and trust instruments, researching legal issues, and drafting memos.
Prerequisites: LAW 8611, LAW 8552.

LAW 8614 Estate Planning and Drafting Credits: 1-4
Continuation of Estates Trusts I using problems and cases as a basis for class discussion. Working in teams, students engage in the planning of estates for actual clients, proceeding through the entire process and culminating in the execution of wills, trusts or other appropriate instruments. Course is not open to students who have taken Estate Planning.
Prerequisites: LAW 8611.

LAW 8614R Estate Planning For Retirement Plan Benefits Credit: 1
The income, gift, estate and generation-skipping transfer tax consequences and rules related to the ownership, distribution and withdrawal of retirement plan benefits, including minimum required distributions, designating beneficiaries, spousal rights and rollover options

LAW 8615 Estate Planning and Practice Credits: 3-4
Tax-oriented examination of contemporary estate planning problems for the larger estates, with emphasis on issues of direct concern to practitioners. This course is designed for LL.M. students.

LAW 8615R Estate Planning For Charitable Giving Credit: 1
Survey of federal income tax and transfer tax laws governing gifts to charitable organizations, charitable remainder trusts and charitable lead trusts; procedural requirements to assure deductibility; and planning and drafting considerations.
LAW 8617R Elder Law For Estate Planners Credit: 1
An examination of the legal tools available for the elderly client for decision-making, both health care and financial, in the event of incapacity, and asset preservation, including Medicare and Medicaid qualification. The course will cover the use of trust; durable powers of attorney, and advance directives for health care and living wills and the relationship to court guardianship.

LAW 8621 Evidence Credits: 3
General principles relating to proof of facts in civil and criminal trials; presumptions; order of proof; relevancy; judicial notice; real and demonstrative evidence; authentication; best evidence rule; hearsay; competency; impeachment; rehabilitation.

LAW 8631 Constitutional Law Credits: 4
Core issues relating to the U.S. Constitution, including the doctrine of judicial review, the powers of Congress and the President, limitations on state power, and judicial protection of individual rights.

LAW 8633 First Amendment Law Credits: 2-3
Basic themes and advanced problems relating to the law of the First Amendment to the United States Constitution, including exploration of the values behind the protection, persuasive advocacy, regulation of speech in the public forum, access to the media, regulation of the press, symbolic expression, libel, obscenity, commercial speech, picketing, right of association, loyalty oaths, legislative investigations and government demands for information, separation of church and state, free exercise of religion, state aid to the religious schools, regulation of religion-based conduct.

LAW 8633R Law and Religion Credits: 1-2
Explores the interaction of the legal system with religious beliefs and institutions. The course examines issues such as the establishment and free exercise clauses of the United States Constitution, the influence of religion in law making, and religion issues presented in famous trials.

LAW 8634 Criminal Law Credits: 3
Introduction to substantive criminal law, its role and purpose in our society; principles of liability, common law and statutory offenses; defenses; punishment.

LAW 8634I International Criminal Law Credits: 1-2
An introductory course in International Criminal Law focusing on the criminal prosecution of individuals under international law, primarily by international tribunals (or "hybrid" international/national tribunals) and secondarily by national tribunals applying international law. The course will include a consideration of aspects of criminal law that are common to most criminal legal systems, with a particular focus on those crimes that are "international;" will revisit the concept of criminal jurisdiction, how it is acquired, and its limitations, such as immunity for heads of state and diplomats; and will examine the elements of war crimes, crimes against humanity, and genocide, as well as a few other crimes of international concern; and excuses or justifications under international law, such as self-defense and insanity.

LAW 8634K International Contract Law under the CISG Credit: 1
A study of the United Nations Convention on Contracts for the International Sale of Goods (the CISG), which provides a uniform system of contract principles for international sales transactions among the approximately 70 countries that have ratified the treaty. The class focuses on the applicability of the CISG, identifying for students how to avoid applicability by default; it also examines the basic contracting principles of formation, interpretation, and enforcement of contracts as governed by the CISG, utilizing both the treaty language as well as important recent decisions applying the CISG provisions.

LAW 8635 Criminal Procedure I Credits: 3
Introduction to the administration of criminal justice; constitutional rights of the accused; due process; privilege against self-incrimination; right to counsel; arrest, search, and seizure; wire-tapping; police interrogation and confessions; pre-trial identification procedures.

LAW 8635S Wrongful Convictions Credits: 2-3
An examination of the causes of wrongful convictions, a consideration of systemic reforms that might minimize convicting the innocent and a focus on recurring ethical issues that confront prosecutors and criminal defense lawyers. Students also will work with The Midwestern Innocence Project on cases of possible actual innocence. This course provides an insider’s look into the operation of the criminal justice system and is designed to help students gain insight into features of the criminal justice system that have a tendency to produce wrongful convictions. It should be of particular interest to any student interested in working in a prosecutor’s office, public defender’s office or for a firm doing defense work. It is a prerequisite for any student wishing to enroll in the Innocence Project clinic. Limited enrollment (normally, up to 16 students)

LAW 8635T Wrongful Convictions II Credits: 2-3
A follow-up class to Wrongful Convictions I, open only to students who have completed Wrongful Convictions I. The course will involve "hands on" work with cases that have passed through the first level of screening in Wrongful Convictions I with students receiving the transcripts and case documents in addition to the briefs and opinion in the case. Students will receive these documents and report on the likelihood that an inmate is innocent and the strategies available for pursuing the claim of innocence.

LAW 8636 Criminal Procedure II Credits: 2-3
Continuation of the study of the administration of criminal justice; exclusionary rules; bail; prosecutor’s discretion; grand jury; preliminary hearing; jurisdiction, venue; joinder and severance of offenses and defendants; right to speedy trial; pleas of guilty; discovery; trial by jury; publicity; double jeopardy.
LAW 8636A Federal Trial Practice Credits: 2-3
A practical skills course involving consideration and application of the rules of procedure and evidence to civil and criminal cases brought in federal court, including, but not limited to the legal requirements of federal jury instructions, motions in limine, pretrial preparation, pretrial conferences, notice requirements, voir dire, opening statements, direct and cross, evidentiary foundations for exhibits, computerized and computer-related evidence, character and related evidence, witnesses (lay, lay opinion, summary, character, experts), and closing arguments.

LAW 8637R U.S. Attorney's Office Law Internship Credits: 1-6
Up to four students, under supervision of an Assistant United States Attorney, are selected as interns to work in the United States Attorney's Office for the Western District of Missouri with members of the Strike Force, Narcotic Unit, General Crimes Unit or Civil Division. Activities include, legal research and writing, consisting of memoranda, motions and briefs; observations and participation in trials, pre-trial hearings and motions, as appropriate; and assistance with litigation. Students are expected to work a pre-approved schedule of six hours a week for fourteen weeks with a minimum of eighty hours a semester and to attend regular conferences with their supervising attorney and faculty supervisor.

LAW 8638R Entrepreneurial Lawyering: Solo And Small Firm Practice Credits: 3
Course will focus on law practice management for solo and small firms. Topics include organizational structure, firm management, fee setting and allocation, and effective and ethical marketing. Course includes attendance at the Missouri Bar Solo and Small Firm Conference.

LAW 8639 Legal Practice Technology Skills Credits: 1-3
This course will facilitate technology competencies for students for use in practice settings, regardless of the size or setting of the law firm, business, or agency. The course will familiarize students with the basic legal technologies necessary for the twenty-first century lawyer, but will also include word-processing, spreadsheet and database skills appropriate for the legal setting. More advanced portions of the course include computer-assisted drafting, file architecture design, security protocols, and client communications.

LAW 8639D Legal Document Assembly Credits: 1-3
Document automation and assembly can help attorneys more efficiently and accurately deliver legal services to the public and their employer—thus helping attorneys be more competitive in the legal services market place. This two-credit hour course will teach students the skills necessary for document automation and familiarize them with HotDocs, the predominant provider of document assembly applications. Students will produce programmed documents, interviews, and systems for estate planning, businesses planning, or such other projects as are suitable for document assembly. The course may be taught over an eight week period or a summer term. No computer programming experience is required.

LAW 8639L Practice Management Technology Lab Credits: 2-3
Building on theory of the role technology in law practices, students will learn how to use document assembly software and learn to be proficient with other software with hands on exercises and work.

LAW 8641R Legislation Credits: 2-3
This course explores a variety of topics under the broad heading of "Legislation." Included among them are: electoral and representational structures, legislative drafting, canons of statutory interpretation, identifying and utilizing legislative history, the role of referendums and initiatives as a supplement to representative institutions, public choice theory, and other theories of legislation. The course also includes an opportunity for students to participate in the drafting of legislation for the Kansas for Missouri State legislatures. Paper optional.

LAW 8643F Advanced Legal Research: Foreign, Comparative and International Law Credit: 1
The course is designed to familiarize students with the basic resources of international law by taking an in-depth look at foreign and comparative law resources, teaching students how to utilize and think systematically about those resources and instructing students in the strategies and processes necessary to conduct scholarly research and practice international law. Students taking the course will improve their research competency in authorizing scholarly papers with a comparative or international perspective.

LAW 8643L Advanced Legal Research-Litigation Credit: 1
Prepares students who wish to focus on advocacy and litigation (including students in litigation with respect to Family Law and Urban, Land Use and Environmental law). The course is also intended to facilitate research for the student's legal research and writing requirement. the course will refresh and refine research skills, help students to think systemically about legal research, and familiarize students with applicable resources. As the final project, students will have the opportunity to develop an in-depth research "path finder" or guide for an approved topic of their own choosing.

LAW 8643T Advanced Legal Research: Transactional Law Credits: 1-2
Prepares students who wish to focus on transactional law. The course is also intended to facilitate research for the student's legal research and writing requirement, although it does not satisfy the writing requirement. The course will refresh and refine research skills, help students to think systemically about legal research, and familiarize students with applicable resources relevant to transactional law including business organizations, tax, pension, labor and employment, competitive business intelligence, real estate, securities, sale of businesses, etc. As the final project, students will have the opportunity to develop an in-depth research "path finder" or guide for an approved topic of their own choosing.

LAW 8650 Race and the Law Seminar Credits: 1-3
In-depth examination of the role that race plays in American society as a whole and in judicial decision-making in particular. Course will examine the effect of race on representative democracy, employment, education, housing, hate crimes, the legal profession, sex, popular culture, and other aspects of the law. Research paper.
LAW 8656 Public Defender Trials Internship Credits: 1-6
As permitted by Missouri Supreme Court Rule 13, senior law students, under supervision, handle cases referred from the Public Defender. Students enrol for two semesters and apply lawyering skills to represent client, conduct weekly conferences, and attend lectures on criminal defense law and practice.
**Prerequisites:** LAW 8634.
**Co-requisites:** LAW 8635, LAW 8621, LAW 8731.

LAW 8656A Missouri Attorney General’s Office Internship Credits: 1-3
As permitted by Missouri Supreme Court Rule 13, second and third year law students, under supervision, work at the Attorney General’s Office in Kansas City assisting with the duties and functions of the office provides the community. The internship provides formalized instruction, and individual mentoring and supervision from assistant attorney generals. Limited enrollment.
**Prerequisites:** Rule 13 certification.

LAW 8656C Jackson County Prosecutor Internship-Family Law Prosecution Credits: 1-3
As permitted by Missouri Supreme Court Rule 13, senior law students, under supervision, appear in court and assist the Jackson County Prosecutors Office, Child Support Division, in prosecuting cases involving paternity establishment and child support. Support services are provided without charge to custodial parents living in Jackson County. The internship provides formalized instruction, and individual mentoring and supervision from assistant prosecutors. Limited enrollment.
**Prerequisites:** LAW 8621, LAW 8635, LAW 8731, LAW 8751, Rule 13 certification.

LAW 8656F Federal Public Defender Internship Credits: 1-6
Students work in the Federal Public Defender’s Office, under the supervision of the Federal Public Defender. Students prepare pleadings and represent federal indigent criminal defendants. Students will be expected to perform legal research, to write memoranda, motions and briefs, to observe and to appropriately participate in trials, pre-trial hearings, motion hearings and, in general, to assist in litigation. Students must meet eligibility requirements and be certified in compliance with the Local Federal Rules of Court. Students must have completed three semesters of law school and must be in the upper half of their class. Ungraded. Pass/Fail.

LAW 8656P Jackson County Prosecutor Internship Credits: 1-6
As permitted by Missouri Supreme Court Rule 13, senior law students, under supervision, appear in court and assist the Jackson County Prosecutor’s Office with the duties and functions the office provides the community. Internship includes formalized instruction, and individual mentoring and supervision from assistant prosecutors. Limited enrollment.
**Prerequisites:** Rule 13 certification.

LAW 8662 Federal Court Internship Credits: 1-6
Second or third-year students serve in a clerkship with a judge or magistrate of the U.S. District Court for the Western District of Missouri, or the U.S. Court of Appeals for the Eighth Circuit. Students work at least 70 hours at the court, and attend review conferences over the course of the semester.

LAW 8662F Family Court Internship Credits: 1-6
Second or third-year students will serve as law clerks to judges and commissioners in the family court of Jackson County. Internship involves required observational experiences, research and writing, and participation in the regular functioning of the court’s processes.

LAW 8662M Missouri Court of Appeals Internship Credits: 1-6
Second or third-year students with a GPA of at least 3.0 serve in a clerkship with a judge of the Missouri Court of Appeals. Students work at least 70 hours at the court, and attend review conferences over the course of the semester. Ungraded. Pass/Fail.

LAW 8665A Animal Law Credits: 2
This course will begin with a brief overview of the philosophical and cultural issues underlying human/animal relationships, including basic theories of the legal systems’s responses to social change. Legal issues relating to food animals, companion animals, laboratory animals, wild animals, and performing animals will be examined with reference to: (1) federal statues (Animal Welfare Act, Endangered Species Act, Marine Mammal Protection Act, Wild Horses and Burros Act, Animal Damage Control Act, National Wildlife Refuge System Administration Act, Refuge Recreation Act, National Environment Police Act, and Humane Slaughter Act); (2) state statues (anti-cruelty, wills and trusts, hunting, racing and fighting statues); (3) local animal control regulations; and (4) extensive common law (standing, rights, free exercise of religion, property, landlord-tenant disputes, torts, marital dissolution and custody, and bailment).

LAW 8700 Trial Advocacy I Credits: 2
A practical skills course in advocacy which introduces students to the fundamental components of a typical civil and criminal trial and requires students to perform exercises involving each component and try a mock civil or criminal case from provided problem materials.
**Co-requisites:** LAW 8621.

LAW 8701 International Study Exchange Credits: 1-15
Semester study at foreign law school.
**Prerequisites:** by permission.
LAW 8702 Conflict of Laws Credits: 1-3
Domicile; jurisdiction and limitations on the exercise of jurisdiction; judgments; full faith and credit; choice of law; conflicts problems in federal and international settings; conflicts problems in selected areas.
**Prerequisites:** LAW 8521.

LAW 8703 Trial Advocacy II Credits: 2-3
A practical skills course in the art of trial advocacy with an emphasis on technique, style, and methods of persuasion. During class sessions, students perform exercises involving the various stages of a lawsuit, and are critiqued on their performances. Following performance of the exercises, students are divided into teams and try a mock case in a trial competition, from which the Law School’s National Trial Competition Teams are selected. The trials are evaluated by trial lawyers and federal or state judges. Limited enrollment.
**Prerequisites:** LAW 8700.

LAW 8704A Lawyering Skills Competition-Appellate Credits: 1-4
This course is limited to students who represent the law school in faculty supervised regional, national or international lawyering skills competitions. These competitions require application of lawyering skills in a range of substantive law areas and intensive practice of lawyering skills, judged by faculty and practitioners in the field. Students enrolled in this course will be representing the school in various moot court appellate advocacy competitions. Students will research and draft briefs or equivalent advocacy documents, develop oral arguments, conduct practice oral arguments before a range of student, faculty, and practitioner judges, and represent the law school in regional national or international competitions.

LAW 8704C Lawyering Skills Competition-Client Counseling Team Credits: 1-2
The course is limited to students who represent the law school in faculty supervised regional, national or international lawyering skills competitions. Students enrolled in this course will be representing the school in the client counseling competitions. Students will research a problem from a range of areas of law and develop problem solving and client counseling strategies and documents and conduct mock client interviews.

LAW 8704I Lawyering Skills Competition Credits: 1-2
This course provides an overview of international commercial arbitration and focuses with more specifically on international investment protection law and bilateral investment treaty provisions. The course will provide preparation for the International LL.M. Commercial Arbitration Competition, but it is open to J.D. students.

LAW 8704N Lawyer Skills Competition-Negotiation Team Credits: 1-2
The course is limited to students who represent the law school in faculty supervised regional, national and international lawyering skills competitions, Students enrolled in this course will be representing the school in various negotiation competitions. Students will research a problem from a range of law and develop negotiation strategies and documents and conduct mock negotiations.

LAW 8704T Lawyer Skills Competition-Transactional Practice Teams Credits: 1-2
The course is limited to students who represent the law school in faculty supervised regional, national or international lawyering skills competition. Students enrolled in this course will be representing the school in various negotiation competitions and meets, Students will research a problem involving business transactions or tax and prepare analysis and problem solving strategies.

LAW 8705 Trial Advocacy III Credits: 2
Students, under the supervision of trial advocacy faculty, participate in trial competitions. Enrollment by invitation only.
**Prerequisites:** LAW 8700, LAW 8703.

LAW 8705I Comparative Advocacy in Ireland Credit: 1
This course will look into the comparative role of Advocacy both in the courtroom and the boardroom for European and U.S. systems. The course will introduce students to a comparative look at the basic structure and legal systems in Ireland and the US. The field of Advocacy is rapidly expanding as evidenced by the adoption of affirmative advocacy programs in Ireland as well as the U.S. An example of the topics covered include: A comparative overview of the Barrister/Solicitor and U.S. systems of justice. The students will be introduced to “access to justice” which is a comparative look at European and US approaches. The course will also focus on the prosecutions under both the European and US systems as well as a discussion of the influence of crimes on international trade, business and a comparative look at the role of advocacy in those systems. Students will be exposed to advocacy for persons with disabilities that include a comparative look at the Ireland and US systems with resulting effects on business and trade. Finally the course will involve review and discussion of the global considerations for Advocacy.
**Prerequisites:** Part of the Ireland Law Program.

LAW 8706 Complex Litigation Credits: 2-3
As related to litigation of complex cases, study of special issues of party joinder and intervention, class action requirements and limitations, discovery, case management, and estoppel by verdict or judgment.
**Prerequisites:** LAW 8521, LAW 8522.

LAW 8707A Advanced Legal Writing: Practical Skills Development Credits: 2-3
Preparation of students for writing problems commonly encountered in the first two years of law practice: jury instructions, general correspondence, opinion letters, simple contracts, litigation motions and pleadings including a complaint, answer and some discovery documents. Individual feedback provided.
LAW 8707B Advanced Legal Writing: Business Contract Drafting Credits: 2-3
Preparation of transactional documents including, for example, confidentiality agreements, consulting agreements, employment agreements, technology licensing agreements.
Prerequisites: LAW 8501, LAW 8502, LAW 8601.

LAW 8707C Advanced Legal Writing: Litigation Drafting Credits: 2-3
Preparation of litigation documents and pleadings, including complaint or petition; cross-claim, counterclaim or third-party petition; answer; discovery documents such as a set of interrogatories or requests to admit; dispositive motions; and settlement agreements.
Prerequisites: LAW 8521, LAW 8522.

LAW 8707E Advanced Legal Writing: Scholarly Writing Credit: 1
Preparation of students for scholarly writing including independent study, law review, and seminar papers. Focus will be on topic identification and refinement; developing a thesis; research strategies including reiterative and mediated searching, systemic evaluation of resources, problem typing and solving, and resources for specific topics in the law; proper attribution and use of authority; developing a working draft; and creating a balanced, thorough, and carefully reasoned and supported analysis.

LAW 8707F Advanced Legal Writing: Appellate Brief Writing Credit: 1
Preparation of federal and state court appellate briefs, including the jurisdictional statement; statement of the case; statement of facts; points relied on; statement of the issues presented; summary of the argument; argument; and responses and replies to arguments. Prepares students to outline and organize arguments; edit and revise written work; and finalize an appellate brief.

LAW 8707R Advanced Legal Research Administrative Regulations/Legislative History Credit: 1

LAW 8708 Master Clinical Advocacy Course Credits: 3-4
This semester-long intensive course will introduce students to the law, advocacy and execution of trial strategy in active litigation. The course will function as a unique clinical course, with a law school professor and local counsel serving as the supervising attorneys. The professor will select an active case in local litigation, preferably in its early stages. The students will be responsible, with supervision, for all areas of the litigation process from drafting pleadings, motions, discovery and taking and attending depositions and trial.

LAW 8710 Lawyerly Skills Teaching Assistant Methods Credits: 1-3
Legal analysis, research and writing; instruction and discussion of the research and writing process and related topics in legal method and legal education; supervised production of an expository writing, advocacy writing and scholarly writing; development of research and writing exercises for use in the first-year Legal Writing Program and service as Teaching Assistants in the Program; limited enrollment.

LAW 8710B Legal Analysis & Methods Credits: 2
Preparation of students for the bar review and exam process with a focus on improving analytical skills to approach and do well on practice bar exam questions, including essay, multiple-choice, and performance questions. The course will cover specific topics tested on the bar exam with additional emphasis on refining memorization skills and learning how to self-assess understanding of concepts.

LAW 8711 Remedies Credits: 2-3
Remedies for violation of legally protected interests; history and development of equity jurisdiction and modern equity practice; injunctions; declaratory judgments; rescission; reformation; restitution; contempt; damages.
Prerequisites: LAW 8521.

LAW 8712 Problems And Issues In The Death Penalty Credits: 1-2
Issues and problems in the administration of the death penalty; the Missouri capital sentencing scheme; constitutional limitations, statutory schemes, state review systems, procedural matters and collateral review of death sentences.

LAW 8713 Death Penalty Clinic Credits: 1-2
The post-conviction process of collateral review in death penalty cases; training in legal representation of the postconviction petitioner.
Co-requisites: LAW 8712.

LAW 8713C Capital Punishment in the Modern World: Constitutional & Human Rights Perspectives Credit: 1
A consideration of problems and issues in the death penalty, including the following topics: the historical and constitutional perspectives on the death penalty; the practical application of the death penalty in the United States; capital punishment and human dignity; and the future of capital punishment

LAW 8713P Wrongful Convictions Clinic Credits: 1-6
Students, under supervision, provide investigate and legal assistance to prisoners with persuasive actual innocence claims. Students meet weekly with the director of the program for training and evaluation. Assigned tasks depend on the needs of the Innocence Project, and may include interviewing potential clients, gathering records, investigating actual innocence claims, consulting with experts, drafting post-conviction and/or clemency pleadings, and appearing at court hearings. Clinical students work in conjunction with law and journalism students enrolled at the University of Missouri-Columbia. Limited enrollment (normally, 8 students).
Prerequisites: LAW 8634, LAW 8635, LAW 8635S.
LAW 8714 Gender and Justice Credits: 2-3
Students will examine and discuss legal issues of special importance to women. Topics will include (among others) sexual discrimination, sexual harassment, domestic violence, reproductive autonomy, and pornography. The course seeks to present each topic in its social context by supplementing legal readings with materials drawn from the social sciences, literature, and film. Paper required. Enrollment limited to fifteen students.

LAW 8714C Gender and Justice: Selected Topics Credit: 1
Students examine and discuss, from a comparative perspective, legal issues that have a substantial impact on the construction of gender, paying particular attention to the laws of Ireland and the United States. Topics will include selected portions of some of the following issues: sex discrimination from an historical perspective in each country the constitutional standards for evaluation of sex discrimination; sexual harassment; domestic violence; reproductive rights; familial rights (same-sex marriage, divorce, and custody); feminist theory (equal treatment theory, cultural feminism, radical feminism, lesbian theory, racial essentialism, and theories of global gender equality); and depictions of gender in popular culture. The course seeks to present each topic in its social context by supplementing legal readings with materials drawn from the social sciences and literature.

LAW 8716 Cybercrime Credits: 1-4
Cyber threats are a global problem challenging all areas of business, and attorneys must be able to advise and defend clients from these threats. Criminal lawyers must be fluent in how new technologies work and how they impact investigations. In this course, students will learn how these new cyber threats and emerging technologies are challenging attorneys across the country. The course will prepare students to think as lawyers when confronting these threats. Course topics will include computer hacking, spamming, spear phishing, Internet fraud and social engineering, cyberstalking, and the rising use of computers and social media in violent crimes.

LAW 8720 Secured Transactions Credits: 3
Secured Transactions in personal property under Article 9 of the Uniform Commercial Code, function and form of a security agreement, process of perfecting a security interest, priority among unsecured parties; secured sales of goods under Article 2 of the Uniform Commercial Code.

LAW 8721 Commercial Transactions Credits: 3
Law of negotiable instruments; bank collections; Articles 3 and 4 of the Uniform Commercial Code; electronic funds transfers.

LAW 8722 Banking Law Seminar Credits: 2
Federal and state law governing banking activities; regulation of bank holding companies; formation of banks; the FDIC and FSLIC; interstate banking; deregulation of banking transactions; banking activities by non-banks; regulation of securities activities of banks. Paper required. 
Prerequisites: LAW 8721.

LAW 8725 Water Law Credits: 2-3
Private acquisition of water rights through riparian ownership and prior appropriation; public rights to water existent in bed ownership easements and trusts; ground water management; water distribution organizations; federal allocation and control of water resources; interstate allocation.

LAW 8725E Energy Law Credits: 3
The course will deal with the legal, economic and environmental issues of energy production on federal lands and/or under federal jurisdiction. It will focus on a number of energy sources including: oil, coal, natural gas, oil shale, coal bed methane, geothermal, water, wind, and solar. It will also cover the special problems of hydraulic fracturing, air and water pollution, climate change spills, collapses, meltdowns and other disasters as well as liability for cleanup and reclamation.

LAW 8728 Law And The American Indian Credits: 2-3
An anthropological, historical and legal study of the American Indian, including a focus on American Indian traditional law and values, federal policy and current legal issues.

LAW 8729 Preservation Law Credits: 2-3
An exploration of the legal and economic issues impacting preservation of land, wilderness, buildings and archeological and historical sites, including a study of various federal and state preservation legislation, and private land use preservation measures.
LAW 8729C Cultural Preservation Law Credits: 3
This course will focus on Federal, State, and Local Law, directed at the preservation of Prehistoric, Historic, and Modern Culture. It will include sections on: The Values and Philosophy of Preservation, Archaeological Protection Law, the Native American Grave Protection and Reparation Law, Sacred Site Protection, Historic Protection in State and Local Government, the Takings Clause, Land trusts and Conservation Easements, Public-Private Partnerships and Modern Ethnic and Socio-economic Communities.

LAW 8730I Introduction to American Law & Culture Credits: 2-3
Introduction to the American legal system, including government structure, sources of law, common law development, and core substantive areas. Available to LL.M. International students only.

LAW 8731 Professional Responsibility Credits: 2
Code of Professional Responsibility and the Model Rules of Conduct; role of the lawyer as a professional; confidentiality; conflict of interest; zeal within the bounds of the law; competency; providing legal services.

LAW 8732C Cross-Cultural Dispute Resolution Credits: 2-3
This course examines the impact of culture on the dispute resolution process. Cultural differences are most pronounced in the international arena, but are also seen in the domestic setting, especially in the US jurisdiction. Students will begin to develop a "cultural fluency" in their law and dispute resolution practice. The subject is timely, and discussion thereof will benefit especially international LLM students, and J.D. students with interests in alternative dispute resolution or international practice. Cross-cultural Dispute Resolution is a blend of both a "course" and a "seminar," as it includes lecture, skills discussion, small-group exercises, independent research and intensive writing. Successful completion of the required research paper will satisfy the research and writing requirement.

LAW 8732I Cross-cultural Business Negotiation Credits: 1-3
This course will introduce students to the foundations of negotiation with several opportunities to participate in negotiation simulations. Negotiation exercises will focus on international business transactions. To create opportunities for cross-cultural interaction and work experience, negotiation teams will, to the extent possible, pair American J.D. students with an international LL.M. students.

LAW 8732R Intro to the Resolution of International Commercial Disputes Credit: 1
This course will introduce students to international commercial dispute resolution. While all forms of dispute resolution will be considered, the course will focus on introducing the fundamentals of arbitration, the use of arbitration between European Union members to resolve commercial disputes, and the use of arbitration between EU members and non-member states to resolve commercial disputes.

LAW 8733 Children In The Law Credits: 2-3
The ways in which the legal system treats children differently from adults and the justifications for such treatment, who should make decisions for the child, decisional authority that should be granted to parents, children and the state in various contexts (e.g., abuse and neglect, health care for the child, foster care, adoption and education).

LAW 8733E Elder Law Credits: 2-3
A course providing a basic foundation for legal practice with older persons, including the following substantive topics: The Older Americans Act, the delivery of legal services to the elderly, ethical considerations, consumer protection, discrimination, Social Security and Supplementary Security Income, Medicare, Medicaid, capacity issues, guardianship and alternatives to guardianship, elder abuse and neglect, adult protective services, nursing homes, long term care, housing, healthcare decisions, end-of-life decisions, estate planning and grandparents' rights.

LAW 8733R Juvenile Offenders & The Law Credits: 2-3
An examination of our justice systems's historical treatment of juvenile delinquent and status offenders, and how the goals and objectives of the past have evolved into today's juvenile offender laws, the rights of juvenile offenders in contrast to those of adult criminals; pre-trial and trial procedural issues under the juvenile code, certification of the juvenile offender as an adult, dispositional/treatment alternatives for juvenile offenders; schools and the juvenile offender.

LAW 8734 Mediation Credits: 2
The process in which a neutral third party assists others in resolving a dispute or planning a transaction; introduction to the nature of the process, its possibilities and limitations, its current and future uses, and how lawyers can and should be involved in it; public policy and political issues surrounding the mediation movement; professional responsibility and malpractice.

LAW 8735 Seminar In Famous Trials Credits: 2-3
This seminar will explore six or seven of the most famous trials from ancient times to the end of the nineteenth century. The trials covered will vary from year to year, but will be taken from a list that includes the trials of Socrates, Jesus, Joan of Arc, Sir Thomas More, Galileo, the Salem witches, John Peter Zenger, the British soldiers charged in connection with the Boston Massacre, Aaron Burr, the slaves of the Amistad, John Brown, the Lincoln Assassination conspirators, Susan B. Anthony, the Haymarket rioters, Lizzie Borden, and Oscar Wilde. Each trial will be examined from many perspectives, both with an eye to deepening students' appreciation for history and their understanding of the tactical and ethical questions faced by attorneys involved in these famous cases. Materials for the seminar can be found on the Famous Trials website. Grades for the seminar will be based both on an in-class objective examination and a short paper addressing an issue raised in a famous pre-twentieth century trial.
LAW 8735R Law Of The European Union (Part I) Credit: 1
An in-depth study of the legal and political framework and institutions of the European Union; the Commission, Council of Ministers, Court of Justice, Court of Auditors, and the European Parliament. Course will examine the interlocking web of European treaties, the expansion of the European Union, the European Union as a trade block and Ireland as a gateway to the European Union for non-bloc nations.

LAW 8736 Debtor-Creditor Rights Credits: 2-3
Creditors’ remedies and debtors’ rights; provisional remedies; secured transactions (Article 9 of the Uniform Commercial Code); liens and exemptions; overview of bankruptcy law.

LAW 8737B Bioethics and Assisted Reproduction Credit: 1
This course will examine the regulation of assisted reproduction, focusing, in particular, on the determination of legal parenthood. The course will consider the legal determination of the status and disposition of embryos, the possibilities of transfer or donation, use of donor gametes, surrogacy, nuclear transfer, and interjurisdictional conflicts. In addressing these topics, the course will compare Ireland, a relatively conservative country on reproductive issues, with the UK with a mix of liberal and conservative approaches in the United States.

LAW 8737R Law Of The European Union (Part II) Credits: 2
An examination of the substantive and procedural law governing the member states of the European Community including such topics as the nature and application of European Union Law, the relationship between European Union and national laws, remedies in national courts, enforcement actions, damages and money claims, free movement of goods and workers competition laws, intellectual property, equal treatment of women and men, and non-discrimination.

LAW 8738 Immigration Law And Process Credits: 2-3
Admission, exclusion, deportation, and naturalization of aliens; structure and powers of relevant federal agencies; categories of immigrant and non-immigrant visas and visa application procedures; asylum, extradition, and refugee status; rights of aliens; public policy issues and proposals for reform; practical problems in immigration.

LAW 8738C Employer Immigration Compliance Plans, Policies & Procedures Credits: 1-2
A practical lawyering skills course in which students learn how to help employers comply with employer immigration compliance requirements in order to avoid possible non-compliance fines, forfeiture of business and personal assets, and jail terms. This course includes an overview of the applicable immigration law and instructs in such matters as corporate client interviewing; Form I-9 Employment Eligibility Form; E-Verify and FAR E-Verify for federal contractors; ICE Best Employment Practices, drafting employer immigration compliance plan, policies and procedures; I-9 Self-Audits, and defending a corporate client in I-9 inspections/investigations by ICE/DHS.

LAW 8738R Chinese Law Credits: 4.5

LAW 8738V Immigration Law & The Violence Against Women Act Credit: 1
A practical lawyering skills course in which students learn how to help abused immigrant women and children to apply for permanent residence in the United States, and how to help victims of violent crimes to apply for legal status. The course includes a short overview of the applicable immigration law and instructs in such matters as client interviewing; analysis of cases; working with victim advocates and experts; drafting affidavits, evidence indexes, petitions, motions and supporting documents; preparation of checklists for clients, case flowcharts, and case timelines; the review and development of evidence; and the drafting of letters to clients and the government.

LAW 8740A Missouri Appellate Procedure Credits: 1-2
Practical application of Missouri appellate procedure rules: appellate jurisdiction, what is appealable and when, appellate case process and the interplay between statutes, Missouri Court Rules and Missouri case law with regard to appellate issues.

Prerequisites: Law 8522 Civil Procedure II.

LAW 8740M Missouri Civil Procedure Credits: 2-3
Selected problems in Missouri civil procedure under Missouri statute and rules. Topics may include venue and personal jurisdiction, pleading and motion practice rules on joinder of parties and claims, statutes of limitation, trial procedure, post-trial motions appellate procedure, discovery, and preclusion.

LAW 8742 International Law Study Trip Credits: 0.5-2
Study field trip series which provides supplementary field experience supporting classroom international and comparative law coursework. Nature of field experience will vary depending on the companion course.

Prerequisites: by permission.

LAW 8743 Global Legal Systems Credits: 1-3
A study of different legal traditions and systems, mainly within the Civil and the Common Law traditions, focusing on each tradition's history, legal structures, legal actors, procedures, and sources of law. Non-Western Legal traditions such as Islamic, Jewish, Hindu and Indigenous Law may also be considered, time permitting.
LAW 8743C Comparative Criminal Law Credit: 1
A comparative analysis of criminal law jurisprudence in the United States and Europe (especially Ireland and the United Kingdom) with respect to the exclusionary rule, the death penalty, the jury system and the reintegration of ex-offenders into society.

LAW 8743I Ireland Program: Selected Topics in Comparative Law Credits: 1-2
This course addresses a focused area of law from a comparative perspectives of United States, Ireland, and/or EU legal systems. **Prerequisites:** part of Ireland Study Abroad Program

LAW 8743L Comparative Health Law Credit: 1
An examination of how the legal systems of several other nations address particular aspects of health law. Specifically, the focus of this course is on patent rights with respect to the health care they receive. This will include, for example, consideration of patient rights when the care received has caused injury due to professional negligence. If time permits, it will also look at how other legal systems address the controversial issues surrounding the "right to die" as well as assisted suicide and euthanasia.

LAW 8745 Law Review Credits: 1-4
Editorial work in connection with the "UMKC Law Review." Open to students selected on basis of scholarship. Ungraded.

LAW 8745R Law Review Board Credits: 1-5
The members of the Law Review Editorial Board edit articles and student notes and comments for publication in the University of Missouri Kansas City Law Review; and shepherd the articles and student pieces through the production process.

LAW 8745S UMKC All Journal Staff Credits: 1-4
Staff members of all UMKC School of Law journals (The Urban Lawyer, Law Review, Journal of the Academy of Matrimonial Lawyers, etc.) received credit for writing case notes, annotations, and statutory developments, for editing articles, for editing comments and book reviews, and for participation. Ungraded.

LAW 8746 Research & Writing Requirement Credits: 2
Completion of a paper of publishable quality, demonstrating intensive research and analysis under faculty supervision.

LAW 8746C Court Internship Credits: 1-6
Second or third-year students serve in a clerkship with a judge, magistrate, commissioner, or other judicial officer in individually arranged internships.

LAW 8746I Internship Credits: 1-6
Second or third-year students serve in an unpaid internship with a supervising attorney in a government or non-profit practice in individually arranged internships. Students reflect on their experience and provide samples of work product for review by supervising faculty. **Prerequisites:** 28 J.D. credit hours completed

LAW 8746R Independent Study Credits: 0.5-3
Independent study, including research and writing projects, under faculty supervision.

LAW 8746W Introduction to Workers' Compensation Law and Practice Credits: 1-2
An introduction to the general history and purpose of the workers' compensation laws with a particular emphasis on Missouri law. Students will be presented with and guided through actual workers' compensation problems which will introduce them to the practical aspects of the practice in this specialized area. With permission from Jefferson City and the Department of Labor and Industrial Relations, the students will be exposed to actual workers' compensation hearings, mediations and other courtroom practices held at the law school and presided over by an Administrative Law Judge.

LAW 8747 Introduction to Appellate Advocacy Credit: 1
Preparation of memorandum (points relied on and summary of argument); presentation of two arguments before practicing attorneys.

LAW 8748 Appellate Advocacy - Ellison Moot Court Competition Credits: 2
Ellison Moot Court Competition; preparation of an appellate brief and presentation of two oral arguments before federal and state judges. Open to the 16 finalists from Appellate Advocacy II. Ungraded. **Prerequisites:** 8747 Intro to Appellate Advocacy.

LAW 8749 Field Placement Seminar: Learning from Practice Credits: 1-2
Learning from Practice is a seminar (tied to a field placement) devoted to the development of lawyering skills and professional judgment. Seminar activities are designed to build professional and lawyering skills that will assist students as they perform fieldwork and observe a live practice environment. The seminar will explore dimensions of professional development of an effective lawyer, including the capacity for reflection, deliberate skill acquisition, and ability to form meaningful professional relationships. **Prerequisites:** 30 credit hours toward JD. **Co-requisites:** Concurrent enrollment in a field placement course or instructor permission.

LAW 8750B Urban Lawyer Board Credits: 1-5
Members of the Urban Lawyer Editorial Board, articles that are submitted and coordinates student written case digests and comments for publication in The Urban Lawyer. The members of the board ensure the articles and student pieces conform to publication standards and work the articles through the production process. Board members must take at least one credit in the fall semester and can carry over the remaining allocated credits to the winter semester. Ungraded.
LAW 8750C Municipal Internship Credits: 1-6
Second or third-year students serve in internship in a department of city government providing legal or regulatory functions. Students reflect on their experience and produce written work product for review by supervising faculty.
Prerequisites: by selection

LAW 8751 Family Law Credits: 2-3
Pre-marital contracts; marriage; annulment; paternity; parent and child; divorce; alimony; division of property; separation agreements; adoption.

LAW 8751D Divorce Procedure and Practice Credits: 1-3
This course will focus on basic doctrine and procedure of divorce, child custody and related financial issues using Missouri law as the template. Students will perform a simulation of a divorce from initial client interview to judgement, including trial and mediation of the issues. Course includes attendance at the Missouri Bar Family Law Conference.

LAW 8751F Family Law & Film Credit: 1
An exploration of the function of family law and lawyers in society by examining legal decisions, statutes and legal commentaries in the context of films, including classic, contemporary mainstream, foreign, documentary and independent films. The seminar entails participants viewing a film followed by discussion. During the discussion session students will critique the film in light of assigned reading materials. Using films as analytical tools, the seminar examines the ways in which pop culture products (such as film and television) both reflect and change the social views about family law and lawyers. A pass/fail course.

LAW 8751S Family Violence Credits: 2-3
An in-depth examination of family violence from a legal perspective. Course topics will include interdisciplinary study of the dynamics and psychology of family violence, of historical and social policies, specialized problems of family violence (including intimate partner violence, child abuse and neglect, gay and lesbian battering, and elder abuse) and legal responses. Students will receive practical training in safety planning, intake, review of community resources, case logistics, and advocacy for temporary orders.

LAW 8752G Guardian Ad Litem Workshop Credits: 1-2
Advanced study of guardian ad litem practice. (GAL). Topics may include adult and child orders of protection, requirements for guardian ad litem appointments, role of the GAL, ethical considerations, working with social workers and other professionals, and best practices in investigation, recommendation, and representation. Students will partner with volunteer attorneys to act as guardians ad litem in order of protection cases.
Prerequisites: Rule 13 certification.

LAW 8752R Family Law Practice Credits: 2
A practical skills course in family law in which students participate in all phases of family law practice, including the initial client interview; the drafting of questionnaires, pleadings, motions custody and discovery plans, support and maintenance proposals, orders and other documents; negotiation, and preparation for litigation. Students work in teams and perform exercises which simulate "real world" situations.
Prerequisites: LAW 8751.

LAW 8752S Child & Family Services Clinic Credits: 1-6
Students represent the clients in obtaining legal rights to custody of children who are currently in foster care or otherwise under the authority of the Department. Students work under the supervision and direction of clinic faculty and faculty directors, receiving classroom instruction in the substantive law and procedure governing juvenile court actions.
Prerequisites: Rule 13 certification.

LAW 8753 International Law Credits: 2-3
Survey of international legal studies; nature and role of international law, its effectiveness in dealing with international problems and its application in domestic jurisdictions.

LAW 8754 International Business Transactions Credits: 2-3
Legal problems encountered in international business; jurisdiction and choice of law; enforcement of judgments; methods of protecting foreign investments; extra-territorial application of United States regulations, e.g. anti-trust law.

LAW 8757 Business Planning Credits: 2-3
Problem-method study of choice of entity and various other legal issues and planning challenges in forming a closely held business entity and in private and public financing of an existing enterprise. The course includes practical training from drafting organizational documents to conducting simulated client interviews and providing written advice concerning hypothetical transaction. Limited enrollment.

LAW 8757L Special Topics In Entrepreneurial Lawyering Credits: 2
Examination of issues related to ethical and effective management and marketing of law practice, emphasizing solo and small firm practice. Topics will vary from year to year, but will generally address issues such as forms of practice, dissolution of practice, practice management systems (including technology assistance), human resources management, advertisement and solicitation, insurance and malpractice.
LAW 8757N Entrepreneurship & New Venture Creation Credits: 3
Jointly-taught by Law School and Bloch (Business) School faculty, this interdisciplinary course provides education in entrepreneurship to a combined class of students from law, business, engineering and perhaps other graduate-level disciplines. Using a combination of readings, lectures, electronic blackboard discussions, team business planning projects and presentations, and individual presentations on selected topics, the Course is designed, from a law student's perspective, to both (1) familiarize the student with substantive knowledge of issues from multiple disciplines involved in creating a new venture to commercialize technology and (2) train law students in techniques designed to effectively communicate and resolve legal issues inherent in such projects in a collaborative manner with clients and their advisors from other disciplines.

LAW 8757R Entrepreneurial Law & Practice Clinic Credits: 2-3
Under faculty supervision, students will counsel start-up companies and their owners and implement business planning advice by drafting articles of incorporation and organization, by-laws, partnership agreements and other business contracts. Other business-related matters ranging from regulatory, consumer, licensing, and taxation requirements; copyrights, trademark, and patent creation; and 501(C)(3) applications for non-profits may also be covered in this course. Clinic students will also receive classroom instruction in the areas of client counseling and business planning and drafting of business documents.

Prerequisites: LAW 8721, Rule 13 certification.

Co-requisites: LAW 8731.

LAW 8757V Social Entrepreneurship Ventures Credit: 1

LAW 8758S Securities Regulation Credits: 2-3
Problem and policy method study of the Securities Act of 1933 and selected aspects of the Securities Exchange Act of 1934; financing of an enterprise; reorganizations; tender offers; proxy regulation; and securities fraud claims.

LAW 8760 Insurance Credits: 2
Life, fire, accident, and liability insurance; nature of insurance; nature of insurance contract; special rules of construction; standard policy provisions; regulation of insurance industry.

LAW 8762 Personal Injury Tort Practice And Procedure Credits: 1-3
Advanced treatment of law of negligence; right of recovery and defenses; practice and procedure in negligence cases, including case intake, pre-discovery investigation, settlement demand packages and other communications with opposing counsel, injury petitions, initial discovery, depositions, retention of experts, pre-trial motions, and mediation.

Prerequisites: LAW 8521 Civil Procedure I, Law 8522 Civil Procedure II, Law 8511 Torts, Law 8531 8532 Lawyering Skills I II.

LAW 8763 Labor Law Credits: 2-3
Regulation of labor relations pursuant to the national Labor Relations Act, focusing on the establishment of collective bargaining relationships, unfair labor practices, collective bargaining, strikes, picketing and pre-emption.

LAW 8764 Administrative Law Credits: 1-3
Introduction to the administrative process; role, function, and processes of administrative agencies; policy issues of administrative government; judicial review.

LAW 8765 Federal Jurisdiction Credits: 2-3
Federal court system and jurisdiction of the federal courts; diversity of citizenship; removal of cases from state to federal courts; conflicts between state and federal judicial systems; original and appellate jurisdiction of the Supreme Court.

Prerequisites: LAW 8521.

LAW 8766 Land Use Law Credits: 2-3
Legal and administrative aspects of land use and the problems and techniques of urban planning; statutory anti-nuisance devices; controlling land use by private methods (restrictive covenants, easements, and servitudes); zoning; subdivision controls; public acquisition of land; building and housing; urban renewal and redevelopment; environmental quality control (air, water, and conservation); relationship of lawyers, planners, private builders, and owners to governmental policies.

LAW 8767 Land Title Clinic Credits: 1-6
Under supervision, students provide legal assistance to The Land Bank to bring quiet title actions and pursue other legal strategies necessary to return vacant and abandoned properties to productive use.

Prerequisites: Rule 13 eligibility.

LAW 8768 National Labor Relations Board Internship Credits: 1-3
One-semester clinic in which students will be assigned to the Kansas City Office of the National Labor Relations Board. Under the direction and supervision of the Regional Director, the students will participate in the investigation and prosecution of unfair labor practice charges filed by employers, unions and employees. The students may participate in conducting elections to determine whether employees shall be represented by a union. The students will also assist in Federal District Court litigation to obtain injunctions against NLRA violations. Tasks will include document review, witness interviewing, research and case preparation. Bi-weekly conferences with faculty supervisor and log of clinic activities also required.

Prerequisites: LAW 8763.
LAW 8768R Department Of Labor Internship Credits: 1-6
Students work with the solicitor’s Office of the United States Department of Labor assisting attorneys enforcing federal labor statues, including the Fair Labor Standards Act, OSHA, ERISA, and the Davis-Bacon Act. Under the supervision of the Deputy Regional Solicitor, students perform legal research relating to enforcement actions, draft discovery requests review documents, participate in client and staff conferences, and assist in the investigation of violations. Clinic participants maintain a log of their activities and have bi-weekly conferences with the faculty supervisor to review and evaluate their clinic experiences and research work product.

LAW 8769 Law & Poverty Credits: 1-3
Selected problems arising out of the relation of the law to the poor and its effect upon the individual and the family structure; income maintenance (e.g., welfare, social security); discrimination in employment and housing; delivery of professional services (legal, health); administrative and judicial remedies.

LAW 8770 State And Local Government Law Credits: 2-3
Structure, powers, and divisions of local governments in metropolitan areas; role and powers of cities, counties, towns, school and special districts; decentralized and neighborhood governmental units and other local governmental units; legislative, home-rule, and constitutional sources of power; sovereign immunity; boundary adjustments; public employee relations; citizen participation; reapportionment; licensing and permits; ethics and public access to records; regional governance; intergovernmental cooperation; interstate compacts and authorities; function of local government with reference to solution of problems created by urban growth; role of judicial, administrative, and political processes.

LAW 8771 Public Finance Credits: 2-3
Fiscal, economic, and taxation problems and powers of local government in metropolitan areas; constitutional limitations; spending and public finance; property taxes; special assessments and exactions; interstate tax acts; local income taxes; debt financing; debt adjustment; public expenditures and contracts; financing education.

LAW 8773 Environmental Law Credits: 2-3
This course covers law developed to control pollution and to protect our country's physical environment. The course provides introductions to ecological theories and to early common law efforts to protect the environment. But the course mainly focuses on current environmental statues (for instance, the Superfund Act, the Resource Conservation and Recovery Act, the Clean Air Act, and the Clean Water Act) and on current federal constitutional issues involving the environment. (Priorities in this mix may vary from year to year, depending on current events and related course offerings). Enforcement policies, citizen activism the needs of private industry, and the administrative process are also considered.

LAW 8773C Environmental Compliance Auditing and Permitting Credits: 3
This course provides students with an overview of the key federal environmental statutes and their inter-relationships, including consideration of the Clean Water Act, the Clean Air Act, the Emergency Planning and Community Right to Know Act and the Resource Conservation and Recovery Act. Students will learn about inspections, enforcement and liability; environmental management systems and auditing; and generally, how Congress and the EPA formulate environmental laws and regulations and about the roles in the process of the legislature, the regulators, the regulated communities, citizens and public interest groups.

LAW 8773N Negotiating SuperFund Settlements Credits: 1-2
This course will engage students in the simulated resolution of one or more Superfund cases, with a particular focus on the skills required for negotiated resolution of these matters.

LAW 8773R Environmental Law Internship Credits: 1-6
Students perform clinic activities at the United States Army Environmental Office, including performing legal research, writing position papers, attending state and federal regulatory hearings, participating in planning conferences and assisting with litigation. Students are supervised by the Central Regional Environmental Chief Coordinating Attorney and attend regular conferences with a faculty supervisor who reviews copies of all clinic written work that may be so reviewed under the United States Army Environmental Office rules.

Prerequisites: LAW 8773 (or LAW 8764).

LAW 8774 Citizen Suits under the Endangered Species Act Credit: 1
This course will cover the citizen suit provision of the federal Endangered Species Act, walk-through an example case from initiation to settlement, and consider possible reform to meet the goals of the statute.

Prerequisites: Civil Procedure I II.

LAW 8775 Appellate Advocacy National Moot Court Competition Credits: 1-2
Participation on National Moot Court competition team. Ungraded.

Prerequisites: LAW 8748, Ellison Moot Court Competition.

LAW 8778 American Academy Matrimonial Lawyers Board Credits: 2
Under direction of professor, students provide editorial assistance in publishing Journal of the American Academy of Matrimonial Lawyers, write a paper on selected topics and prepare summaries and bibliography of current works. Limited enrollment.
This course examines several key topics related to the protection of visual arts, including copyright and moral rights and their intersection with First Amendment protection.
LAW 8800 Legal Research Thesis Credits: 1-8
Research for LL.M. thesis.

LAW 8808 Intellectual Property Law Credits: 2-3
Substantive and procedural law of intellectual property. Coverage includes copyrights and patents and other areas at the option of the instructor.

LAW 8808I International Intellectual Property Credit: 1
This course focuses on the main principles of protection and obligations of the signatories to the World Trade Organization Trade Related Intellectual Property Agreement (GATT/TRIP’s) - in particular focusing on the main intellectual property and industrial property rights, including (1) Copyright, (2) Performers Rights, (3) Patents, (4) Trade Marks, and (5) Related rights such as unfair competition and the protection of geographical indications; and addresses what the obligations are that are imposed on signatories in respect of protection and enforcement of these rights.

LAW 8808L Intellectual Property Licensing Credits: 2-3
This course provides for advanced engagement with intellectual property concepts while also providing training in practical skills. The course will first entail reminding students of the differences among the three essential areas of intellectual property law (copyright, patent, and trademark) and indentifying how these differences translate into different standard license agreements. Additionally, students will consider the challenges in drafting a consolidated license agreement that transfers interests in multiple types of intellectual property. Second, the course will include considerable practice for students in drafting contract language.

LAW 8808S Intellectual Property Remedies Credits: 2-3
This course will explore the remedies available to intellectual property owners and the protections available to those accused of infringing copyrights, trademarks, trade secrets and patents. The course will delve into issues of how rapidly advancing technology has made it more difficult to apply the current remedies and explore whether they go too far or not far enough in protecting owners of intellectual property. It will also help students recognize that case evaluation does not end after analyzing whether liability exists.

LAW 8813 Employment Discrimination Law Credits: 2

LAW 8813E Equal Employment Opportunity Commission Internship Credits: 1-4
Under the supervision of EEOC Regional Attorneys, students will work in the Legal Department at the Equal Employment Opportunity Commission’s Kansas City, Kansas office. Students will conduct research and draft legal documents and observe and participate in the commission’s dispute resolution processes.
Prerequisites: 45 credit hours 2.8 GPA

LAW 8814E Unemployment Compensation Clinic - Appellate Practice Credits: 2
Students represent applicants before the western district court of appeals in their appeals from denial of unemployment compensation. Students attend training sessions to learn relevant substantive and procedural law of unemployment compensation, and then assist in reviewing files to select cases for appeal and contacting potential clients, review records and transcripts of the selected cases, meet with the clients, research and write the brief and reply briefs, and argue the cases on appeal.
Prerequisites: LAW 8747, Rule 13 certification.

LAW 8814R Employment Law Credits: 2-3
Survey of legal doctrines regulating the employment relationship, including the regulation of wages, hours and benefits; privacy in the workplace; workers' compensation; suits for unjust dismissal; drug and polygraph testing; and sexual harassment. May be offered as a seminar.

LAW 8814U Unemployment Compensation Clinic - Hearings Practice Credits: 1-3
Students represent claimants in administrative hearings appealing denials of their unemployment compensation claims. Students interview and counsel clients, investigate their cases, prepare evidence, and advocate for the clients in these hearings.

LAW 8815 Products Liability Credits: 2-3
Theory and practice in products liability cases; negligence; misrepresentation; strict liability; theories of product defect; applicability of the Uniform Commercial Code including warranties and disclaimers; actions among members of the distribution chain.

LAW 8815R Disabilities And The Law Credits: 2-3
An interdisciplinary study of the law relating to disabled persons in the areas of employment, education, and access to transportation, health, welfare and social services to provide an understanding of how the law affects individuals with disabilities and public and private entities. Legislation considered include the American with Disabilities Act, Section 504 of the Rehabilitation Act of 1973, the individuals with Disabilities Education Act, the Family and Medical leave Act, the Fair Housing Act, the Voting Accessibility for the Elderly and Handicapped Act, and the Title VII of the Civil Rights Act of 1964. The enrollment of graduate students from other disciplines, such as education, business, and health sciences is encouraged to allow for interdisciplinary discussion of the topics involved.

LAW 8815S Leadership In Disability Studies: A Multidisciplinary Approach Credits: 3-4
An overview of the history of disability issues, some individualized perspectives of persons with disabilities, the rationale for interdisciplinary approaches regarding disability studies, and opportunities for leadership development with regard to disability issues. The students will participate in a forum that encourages reflection, exchange of ideas, interaction with persons with disabilities and persons from various fields of study, and case analysis. After an orientation to the study of disabilities, various aspects of community membership for persons with disabilities will be addressed, particularly with regard to the workplace, the neighborhood, and the home. Emphasis with placed on vital leadership roles that facilitate community membership and contribution of persons with disabilities to society.
LAW 8820 Criminal Trial Techniques Credits: 2
Strategy and tactics in handling a criminal case; effective representation of the accused at various stages of the criminal process; securing pre-trial release; plea bargaining; motion practice; discovery; voir dire; opening and closing statements; examination of witnesses; use of the expert; sentencing; appeal; collateral attack.

LAW 8821 Sentencing Mitigation Clinic Credits: 1-6
Students will work in conjunction with practicing attorneys, paralegals, social workers, and investigators serving clients of the Federal Public Defender Offices in the District of Kansas and the Western District of Missouri. The focus of the client representation will be geared towards investigation, development and presentation of mitigating evidence to impact sentencing outcomes.

Prerequisites: Mental Health Investigations.

LAW 8822 Post Conviction Remedies Credits: 2-3
Federal and state remedies for collateral attacks on criminal convictions; vacation of sentences and convictions; federal habeas corpus and similar devices. Paper required when course is offered as a seminar.

Prerequisites: LAW 8635.

LAW 8826 Seminar in Constitutional Interpretation Credits: 2-3
Current issues in constitutional law. Paper required.

Prerequisites: LAW 8631.

LAW 8831R International Human Rights Law Credits: 1-3
Study of the law protecting individuals and groups against governmental violations of internationally guaranteed rights; historical antecedents and theoretical underpinnings; human rights in national law (the United States); post World War II developments; principal international human rights instruments; regional human rights arrangements; human rights of women, refugees, ethnic minorities; implementation of rights; international obligations of the United States; selected civil, political, economic and social rights.

LAW 8832 Law Of International Trade And Finance Credits: 3
Study of the World Trading System, focusing on policy and application, including the WTO, the NAFTA, U.S. trade remedies, foreign direct investments controls, and export controls.

LAW 8832I Introduction to International Trade Credits: 1-3
An examination of the structure and workings of the major global trade regimes, including the World Trade Organization ("WTO") and the North American Free Trade Agreement (the "NAFTA"). The role of international trade in such areas as the environment, labor rights, national security, the developing world, and non-market economies will also be considered. The course will also focus in depth on United States domestic trade remedies, including antidumping, countervailing duties, section 301 and 337 actions as well as on other international trade restricting practices.

LAW 8834 Tax Procedure Credits: 2
Problem-method study of procedures and taxpayers' rights when deficiencies are assessed by the Internal Revenue Service; tax liens; commencement of litigation in Tax Court, Federal District Court, and Court of Claims.

LAW 8834R Tax Clinic Credits: 1-4
Practical skills training in the sources and methods of tax research (including electronic database sources) using problem method approaches; analytical and planning skills are developed through in-depth case study research.

LAW 8837 Negotiating Mergers And Acquisitions Credits: 2-3
Problem-method study of corporate, tax, securities, and business problems entailed in buying and selling a corporation; fundamental corporate changes: recapitalizations, mergers, sale of assets, sale of stock, and tender offers; corporate finance and rehabilitation of financially distressed corporations.

LAW 8838L Legal Accounting Credit: 1
Accounting as it relates to the work of a lawyer. Understanding financial statements (balance sheet, income statement, cash flow, shareholder's equity), analysis of financial statements; deferral concepts (inventory, depreciation, prepaid expenses), understanding accounting principles, valuation (present value, future value.).

LAW 8838R Tax Practicum I Credits: 1-3
Practical skills training in the sources and methods of tax research (including electronic database sources) using problem method approaches; analytical and planning skills are developed through in-depth case study research.

LAW 8843 Federal Income Taxation Of Estates And Trusts Credits: 2
Income tax problems of the fiduciary; grantor's trusts; income, estate, and gift tax problems relating to optional or discretionary acts of the fiduciary in retention and/or distribution of income or corpus.

LAW 8845 Deferred Compensation Credits: 2-3
Problem-method study of deferred compensation arrangements; qualified pension and profit sharing plans; individual retirement accounts; qualified stock option plans; other methods of deferred compensation.
LAW 8847 Personal Injury Tort Litigation Credits: 1-2
Introduction to the fundamentals of personal injury litigation, including case intake, pre-discovery investigation, settlement demand packages and other communications with opposing counsel, injury petitions, initial discovery, depositions, retention of experts, pre-trial motions, and mediation.

LAW 8848R State And Local Taxation Credits: 2-3
State and local taxation of income, sales and property, including the apportionment of tax obligations to multiple states. Restrictions imposed by constitutional doctrines such as the uniformity and equality requirement and the prohibition on interfering with interstate commerce.

LAW 8850 Applied Evidence Credits: 1-3
Problems and simulations in evidence; application of the rules of evidence in many of the following topic areas: objections to the form of the question; hearsay; lay and expert opinion; authentication, the introduction of real and demonstrative evidence, rules of relevance, cross-examination and impeachment.

LAW 8858 Consumer Protection Credits: 2-3
Protection of consumers from false advertising, unfair sales practices, and consumer credit and debt collection abuse. Topics which may be covered are Truth-in-Lending Act, Uniform Consumer Credit Code, Fair Debt Collection Practices Act; Interstate Land Sales Disclosure Act, Federal Trade Commission and Missouri Attorney General activity, Missouri consumer credit legislation, consumer warranties, consumer class actions, abusive collection practices.

LAW 8858L Consumer Protection Lab Credit: 1
This course provides students with skills needed for reviewing and investigating consumer complaints; developing problem solving strategies and drafting Attorney General letters, pleadings, and other documents necessary for the enforcement of the complaint. Students work with the Missouri Attorney General’s office to screen consumer complaints and recommend actions.
Prerequisites: LAW 8858.

LAW 8861 Real Estate Finance Credits: 2-4
Real estate investment and development; basic financing instruments (e.g., mortgages, deeds of trusts, contracts for deed); foreclosure remedies; home finance, national housing market; financing of commercial and industrial properties; construction financing; mechanic’s liens; priority disputes; bankruptcy issues affecting real estate security interests.

LAW 8863 Fair and Affordable Housing Seminar Credits: 1-3
This seminar course will explore issues of fair and affordable domestic housing law through a real property lens. It will be unique in its approach to housing law from an advanced property perspective. Through a mixture of classroom lectures and discussions, experiential exercises and scholarly writing, housing issues will be examined from many perspectives including that of residential and commercial owners, developers, homeowner associations, landlords, tenants, and government regulators.
Prerequisites: LAW 8541 Property I; LAW 8542 Property II.

LAW 8867R Social Security Administration Court Internship Credits: 1-3
Students assist an Administrative Law Judge in performing duties handled by the Social Security Administration, including reviewing files of pending cases; conducting legal research; attending hearings and participating in conferences, as assigned; preparing recommendations for the disposition of motions and for on the record decisions; and preparing draft decisions. Students are supervised by an attorney advisor and attend regular conferences with a supervising faculty member who reviews copies of all clinic written work that may be reviewed under Social Security Administration rules.
Prerequisites: LAW 8764.

LAW 8868 Trusts: Planning, Drafting, Administering & Litigating Credits: 2-3
Focus on advanced planning and drafting of inter vivos private express trusts for individuals, including proper use of readily available forms (tax-related drafting limited to marital and charitable deduction forms), consideration of trustee’s duties, powers and liabilities pursuant to the Missouri Trust Code and related cases, and special emphasis on the recently-adopted Uniform Investor Act and the significant changes it has introduced to Missouri trust investment law.
Prerequisites: LAW 8611.

LAW 8870 Seminar in Educational Equality and the Law Credits: 1-3
This seminar will explore the legal aspects of providing educational equality in a nation of diverse ethnicities, cultures, religions, sexual identities, and socio-economic conditions. Through the lenses of legal scholarship and primary legal authorities, students will examine past and current attempts to address the inequities that have long plagued U.S. public education in the K-12 setting. In addition, the course will include extensive instruction in scholarly research, writing, and publication skills.

LAW 8870R Education Law: Government & Legal Aspects Of Education Credits: 2-3
This course is designed to give students an introduction to the major legal doctrines that affect K-12 schools, as well as the policies that underlie or are changing those doctrines. Students should gain a working understanding of the impact of federal and state law on the operation of schools, the rights and responsibilities of teachers and administrators, and the rights of the students who attend those schools.

LAW 8874 Tax-Exempt Organizations Credits: 2
An in-depth examination of the state and federal laws that govern the formation and operation of tax-exempt organizations, with emphasis on Sec. 501 (c) (3) charities; criteria for tax-exempt status; IRS application and reporting procedures; unrelated business income tax issues.
LAW 8875 Real Estate Transactions Credits: 2-3
Practice-oriented course, including the development of drafting skills, in which questions involving basic residential and commercial real estate sales and civil and leasing transactions are considered, such as title, title insurance, contract conditions, contract remedies, commercial leasing (office and shopping center issues) and issues concerning and confronting brokers; special emphasis on Missouri and Kansas law.

LAW 8875L Legal Context of Real Estate Decision Making Credits: 1-3
A study of fundamental matters involved in real estate decision making, including an understanding of basic real estate terms of art; the unique attributes of commercial real estate the distinction between office, retail and industrial property leases; the significant business and legal issues that arise in lease negotiations; financing issues, including the negotiation of construction and permanent loan documents; loan application/brokerage agreements; the impact of bankruptcy on real estate transactions; an explanation of different types of insurance coverage applicable to commercial real estate; and construction issues, including how buildings are constructed and the "green" movement impact on current construction practices.

LAW 8876 Sales and Leasing Credits: 1-3
This course is a survey course on the law of sales leasing. The course will examine the sale of goods under Article 2 of the Uniform Commercial Code (UCC), studying the rights, duties, and liabilities of parties to modern sales transactions. The course will also analyze Article 2A (leasing) of the UCC and explore the rights, duties, and liabilities of parties to modern lease transactions. The course will also consider the United Nations Convention on Contracts for the International Sale of Goods (CISG). Topics encompassed will include sale and lease contract formation, establishment of express and implied contract terms,

LAW 8877 Bankruptcy Court Internship Credits: 1-3
The United States Bankruptcy Courts have jurisdiction over claims arising under federal bankruptcy law. Cases in these courts present issues arising not only under the Bankruptcy Code, but also in many other areas, such as secured transactions, contract law, labor law, and tax law. Students will, among other duties, observe court proceedings, assist in writing legal memoranda, and draft opinions. Enrollment in the Bankruptcy Court Clerkship Program is limited to students who have completed both Secured Transactions and Debtors Creditor’s Rights. Students work at least 70 hours at the court; and attend monthly conferences with the professor in charge of the program’s ove site.

LAW 8881 Seminar on the Supreme Court Credits: 2-3
Students simulate the work of the Supreme Court on nine cases presently pending before that court. The student justices study the briefs and related material filed in each case, discuss and vote on the cases, and write majority and dissenting opinions. Enrollment in the seminar is limited, fittingly, to nine justices.

LAW 8881P Seminar in Presidential Power Credits: 2
In this course students will examine unsettled and often controversial questions regarding the extent of presidential power in sensitive contexts. Emphasis is placed on how these issues are implicated in current national life. Students will examine and will be expected to actively discuss during class sessions-issues such as the president's authority to decline enforcing federal law, the extent of the president's authority to engage in overseas military action without congressional approval (and, assuming approval is required, what form that "approval" must constitutionally take), presidential authority to indefinitely detain "enemy combatants" at Guantanamo Bay, Cuba (or similar locations), the legal effect of presidential signing statements, the extent of presidential oversight authority over administrative agencies and the propriety of the Court's invocation of the "political question doctrine" when confronted with sensitive questions regarding presidential power.

LAW 8882 Patent Law Credits: 2-3
This course will focus primarily on substantive U.S. patent law, including the laws governing the patentability of particular inventions, the patent procurement process, the rights granted by a patent, and patent enforcement and litigation. As time permits, the course will explore policy issues raised by the current patent system, discuss proposals for reform and international harmonization, and consider alternatives to patent protection such as trade secret and regulatory exclusivity.

LAW 8882R Patent Prosecution Credits: 2-3
This course will focus primarily on the practical application of substantive U.S. patent law, including the laws governing the patentability of particular inventions, the patent procurement process, the rights granted by a patent, and patent enforcement and litigation. In particular, this class will focus on teaching students how to draft a patent application and how to prosecute the application in the U.S. Patent and Trademark office. This class will be designed to mirror the substantive patent law being taught in the Patent Law course. For example, the Patent Law course will present the law and theory of obviousness or novelty; the Patent Prosecution course will instruct in how to deal with and respond to an obviousness or novelty rejection from the U.S. Patent and Trademark Office.

Co-requisites: LAW 8882.

LAW 8884 White Collar Crime Credits: 2-3
Examines substantive federal law in the areas of fraud, public corruption, financial crimes and conspiracy; it also includes examination of procedural and policy issues related to business and white-collar investigations.

Prerequisites: LAW 8634.

LAW 8885 Seminar in Philosophy And Law Credits: 2
An examination from a philosophical perspective of the historical and conceptual relationships present in the evolution, development and analysis of law, including natural law theory, legal positivism and legal realism, and focusing on a specific area of controversy in the law.
LAW 8885H The Quest for a Satisfying Career in Law Credits: 1-2
An examination of what research suggests about the likelihood that a career in law will prove satisfying, including an exploration of the specific types of firms and work environments that are most likely to produce happy lawyers; a consideration of what studies from the fields of neuroscience and psychology suggest about steps that lawyers, law firms, and law schools can take to improve prospects for career satisfaction; and a consideration of how high happiness should rank among life’s goals.

LAW 8886 Corporate Taxation I Credits: 2-3
Tax treatment of corporations and shareholders with respect to formation, non-liquidating distributions, stock dividends, redemptions and liquidations. The course may also cover the personal holding company tax, the accumulated earnings tax, collapsible corporations, multiple corporations and tax consequences of corporate reorganizations; survival of tax attributes; acquisition of loss corporations; and a survey of consolidated return reporting.

Prerequisites: LAW 8886.

LAW 8888A Partnership Taxation II Credits: 1-3
A study of selected topics in tax planning and in negotiating and drafting organizational documents (e.g. partnership agreements and operating agreements) for entities that will be classified as partnerships for tax purposes, including advanced exploration of issues relating to special allocations and book/tax disparities, optional adjustments to basis, payment to retiring and deceased partners, the impact of I.R.C. Section 751 on partnership distributions and on sales and exchanges of partnership interests, partnership mergers and divisions, partnerships with tax-exempt partners, and tiered partnerships.

Prerequisites: LAW 8888R.

LAW 8888R Partnership Taxation I Credits: 2-3
An in depth examination of the tax principles governing partnerships limited liability companies and other unincorporated organizations classified as partnerships for tax purposes, including questions involving the tax consequences of the formation of such organizations, operating distributions, basis computations, liquidating distributions, and sales of ownership interests.

LAW 8890A Sports Law I, Amateur Sports Law Credits: 2-3
Coverage of various amateur sports law issues with a focus on the regulation of interscholastic, intercollegiate sports, Olympic and international sports, and sports broadcasting; including such topics as constitutional law, tort law, contract law, and Title IX gender discrimination; and a consideration of federal disability discrimination laws, the status of collegiate athletes who participate in big time sports programs, the regulatory authority of the National Collegiate Athletics Association, The National High School Athletic Association, international and Olympic sports organizations.

LAW 8890B Sports Law II, Professional Sports Law Credits: 2-3
A focus upon the multitude of legal issues and unique relationships in the sports industry, including, among other issues, professional team sports, other professional sports, facilities management in professional sports, legal implications and the practical realities of the unique labor-management relationships in professional sports. The most significant areas to be studied in the context are antitrust, labor, communications, taxation, contracts law, and intellectual property law.

LAW 8890C The Emergence and Transformation of Concussion Litigation Credits: 1-2
This course will examine the emergence, transformation and development of concussion litigation. Concussion litigation spans multiple areas of the legal landscape – from torts, civil procedure, sports law, labor and employment law and, inter alia, medical-legal aspects. We will begin with the theoretical underpinnings of the emergence of concussion litigation. We will then look at how society, the legislature and the courts have responded to sports concussions. This will require us to analyze what the concussion litigation landscape looks like currently and how it will be shaped in the future.

LAW 8890D Sports Concussion Litigation Credits: 1
This course introduces students to the basic structure and techniques of dispute resolution utilized in international sports law. The field of international sports law is an ever-expanding area of the law and the term “international sports law” refers to an emerging and distinctive body of rules that govern transnational sports and sporting activities. Distinct bodies of international sports law have developed under the aegis of the Olympic Charter that applies to international sports competition well beyond Olympic competition itself, and encompasses both traditional Olympic sports and non-Olympic sports. Many international sports law disputes are now resolved in the Court of Arbitration For Sport (CAS), a body that may rightly be referred to as a Supreme Court for a very wide array of international sports disputes involving such matters as doping, eligibility, cheating, violence, discrimination, commercialization and intellectual property.

LAW 8890R Entertainment Law Credits: 2-3
An examination of the legal issues affecting the print and broadcast media. Topics covered may include copyright, antitrust, spectrum allocation, right of privacy, first amendment issues (prior restraint, obscenity, commercial speech, defamation and access to both information and judicial proceedings), licensing and new technologies including and beyond cable television.
LAW 8890X Sports Law Internship Credits: 2
Through internship in not-for-profit and for-profit sectors of the sports industry, students will learn about the legal and business aspects of various organizations within the amateur and professional sports industries. Students will observe and assist legal counsel with such activities as providing legal research, planning and conducting negotiations, and drafting contracts and other legal documents. Students will complete a significant legal research memorandum on an issue related to their internship. Faculty and Legal Aid attorney supervision. Limited enrollment.

Co-requisites: LAW 8890A (or LAW 8890B).

LAW 8892R Taxation Of Estates, Gifts And Trusts Credits: 2-3
Problem method study of estate, gift and generation skipping transfer taxes and the income taxation of estates and trusts. Emphasis on lifetime and post-mortem planning as well as compliance requirements.

LAW 8893 International Taxation Credits: 2-3
An introduction to the taxation of income of U.S. citizens, residents and corporations from foreign sources and the income of foreign residents and non-residents from U.S. sources. Topics may include sources of income rules, foreign tax credit provisions, the earned income exclusion for foreign source income, income tax treaties and a survey of the tax treatment of U.S. investments made offshore.

LAW 8893R Taxation Of Property Transactions Credits: 2-3
Income taxation of property transactions. Detailed study of capital gains and losses, passive losses, the at-risk rules, and the alternative minimum tax.

LAW 8895S Jury Selection Credit: 1
Students study the purpose of voir dire and the law pertaining to jury selection and receive hands-on experience in selecting a jury role-playing as lawyers; jurors, and presiding judge in a concluding 2 1/2 hour courtroom simulation (where a jury is selected after making challenges for cause and exercising preemptory strikes); and learn that jury selection is an art not a science-which needs to be tailored to the facts of the case and the witnesses the attorney expects to present. An actual case involving a badly injured young plaintiff and a large corporate defendant-where liability is questionable-is used for the simulation. Students learn active listening skills and how to interpret non-verbal behavior. Examples form prominent, practicing lawyers are presented. The course is graded on a pass/fail basis.

LAW 8897 Seminar In Analytical Strategies Credits: 1-2
Pedagogical philosophy of legal education; common themes in first-year legal education; techniques of cooperative learning of legal materials. Students may act as study group leaders for various first-year course subjects. Ungraded.

LAW 8897E Introduction to Law Study Credits: 0
This course is designed to help incoming law students navigate the challenging transition to law study. The course is a rigorous, five-day introduction to law school. Each day focuses on a "stage" of law school learning: orientation, class preparation, class, after class review, exam preparation, and exam taking. The course addresses the skills of reading, writing, and thinking at each of these stages through simulated classes, direct teaching of study skills, written and oral exercises, and individual meetings with faculty.

LAW 8897R Governmental and Legal Aspects of Education Credits: 2-3
Study of legal issues within higher education. Focus is on state and federal law and regulations as they pertain to issues from academic freedom to governance and administration. Focus on strategies for preventive law is a major component of the course.

LAW 8898 Construction Law Credits: 2
The Construction Law course would emphasize state and federal construction law and would provide the students with practical experience in drafting contracts, negotiating disputes, and conducting a mock arbitration. The course would cover the contract responsibilities and remedies of contractors, subcontractors, design professionals, sureties and owners, including the United States Government. The course would emphasize the controlling state and federal statutes and regulations, as well as case law which illustrates the application of the statutes and other areas of law not covered by statute. The classroom sessions will include discussion of the practical aspects of legal practice in the construction industry, with instruction and examples regarding the drafting of documents and contracts, negotiation of disputes, and decision-making regarding the type of dispute resolution forum to recommend to a client.

LAW 8900 Takings Law Credits: 1-2
An examination of all aspects of takings law including the historical and constitutional basis for eminent domain, the public use requirement, regulatory takings, development exactions, and alternatives to takings. Comparisons between U.S. and state regimes and comparative takings law.

LAW 8901 Advising Life Sciences and Technology Entrepreneurs Credits: 1-2
A condensed study of the key legal issues for the entire cradle-to-grave (founding-to-exit transaction) life cycle of high-growth technology and life sciences ventures, focusing on these critical phases: structuring and organizing the high-growth venture; relationships with key constituencies; acquiring, protecting and licensing intellectual property assets; financing transactions and realizing wealth through exit transactions.

Prerequisites: LAW 8601.

LAW 8902 Topics and Cases Related to In-House Counsel Credit: 1
This course surveys a wide range of legal issues from the in-house counsel perspective, including those related to professional responsibility, corporate governance, transactions, compliance, risk management, intellectual property and litigation. Through the use of case studies, students will use legal principles and business judgement to analyze scenarios in various corporate settings.

Prerequisites: LAW 8601.
LAW 8903 Fundamentals of Legal Investigations Credits: 2
This course focuses on skills and methods needed to fully obtain facts so as to determine strategies and analyze possible outcomes for all stages of litigation, both criminal and civil. Detailed information on searching public records, Internet sites, and other document retrieval, as well as methods to locate and interview people, will be provided to students through an interactive format. Using an investigation on parallel tracks approach, i.e., paper and people, students will learn the relationship between documents/physical evidence and thorough, reliable interviewing of clients and witnesses.

LAW 8904 Multicultural Lawyering and Spanish for Lawyers Credits: 1-2
In this course, students acquire skills and knowledge needed to represent Spanish speaking clients, including mastering selected Spanish legal vocabulary, working with translators, conducting initial client interviews, and identifying cultural impacts on communication. Ethical dimensions of cross-linguistic and cross-cultural counseling are examined and students receive training in counseling skills.

Prerequisites: Audition with professor to determine minimum Spanish language ability.

LAW 8905 Intellectual Property Litigation Credits: 2
Advanced engagement with intellectual property concepts and practical skills in litigation of these cases. The course will address the three essential areas of intellectual property law concept (copyright, patent, and trademark) and explore how these differences translate into different procedural and substantive considerations in litigation. Simulations of various stages of litigation will focus on litigation strategy and drafting skills.

LAW 8907 Seminar in Advanced Trademark Credits: 2-3
This course examines advanced substantive topics in various trademark areas, some of which are not covered in prior classes and some of which explore areas of controversy in greater depth. Students will also be exposed to the trademark administrative process in greater depth.

LAW 8908 Family Tax Law Credit: 1
The study of federal tax issues relevant to attorneys who practice family law.

Prerequisites: LAW 8552.

LAW 8909 State and Local Government Law in a Nutshell Credit: 1
This course will examine the laws and structures through which Kansas City local government operates. Topics will include the context for local government functions, the city charter and structure of local government, and examination of the particular topics such as economic development tools, property tax abatement, and local agency interactions.

LAW 8910 Intellectual Property Clinic Credits: 2-3
Under the supervision of faculty who are licensed attorneys, students will counsel start-up companies and their owners and assist with intellectual property matters related to Trade Secrets, Copyright Trademark, Patent and planning in connection with concepts related to Business Torts. Students will conduct patentability and trademark searches, prepare patent landscape reports, trademark registrations, opposition and cancellation responses and assist Clinic clients in identifying trade secrets and potential patentable inventions and preparing intervention disclosures as well as provide general intellectual property information and advice to Clinic clients.

LAW 8911 Winning Voir Dire Credit: 1
LAW 8912 Client Interviewing Credits: 1-3
Basics of client interviewing. Training will include the following components: a) Passive vs. Active Listening b) Forms of Questions c) Preliminary Problem Identification d) Techniques for conducting Initial Interviews e) Providing Information the Supervising Attorney Wants/Needs”

LAW 8913 Mental Health Investigation 1 Credits: 1-2
This is a one-week, one or two-credit hour practical skills course which focuses on skills and methods needed to identify and understand mental health issues and phenomena that every lawyer will encounter. Students will examine what mental illness is, how it affects sufferers, and how it presents to lay observers so that it can be understood and explored in relevant legal contexts. This course is offered in connection with the Mitigation Skills Workshop, which trains lawyers representing capital clients how to interview clients and witnesses for information relevant to developmental, cognitive and mental health issues; students will participate in role-playing an practical skills exercises with Workshop participants.

LAW 8913B Mental Health Investigations II Credits: 1-2
This is the second half of a practical skills course which focuses on skills and methods needed to identify and understand mental health issues and phenomena that every lawyer will encounter. This course is offered in connection with the Mitigation Skills Workshop, which trains lawyers representing capital clients how to interview clients and witnesses for information relevant to developmental, cognitive and mental health issues; students will participate in role-playing an practical skills exercises with Workshop participants.

LAW 8914 Selected Reading in Legal Scholarship Credit: 1
Students and faculty will read and discuss a substantial book by a legal scholar examining a contemporary issue in law and society from a historical, comparative, or jurisprudential perspective. The course will include discussions with the author and students will complete a short project related to the book topic.

LAW 8914F Law and Film Credits: 1-3
Exploration of the function of law and lawyers in society by examining legal decisions, statutes, and legal commentaries in the context of films, including classic, contemporary mainstream, foreign, documentary, and independent films. Students will view and critique films in light of assigned reading materials. Using films as analytical tools, the seminar examines the ways in which popular culture products (such as films and television) both reflect and change the social views about law and lawyers.
LAW 8915 Social Venture Creation Credit: 1

LAW 8917 Law and Human Trafficking Credits: 1-2
Theory and legal structures relating to human trafficking, including practical skills in representing victims.

LAW 8919 The Insanity Defense Credit: 1
This course will review several aspects of the insanity defense: its history, how it works, and the public perception of the defense. The course will focus on the trial of John Hinckley Jr. for attempted murder of President Ronald Reagan as a vehicle for discussing how the defense is presented, the changes in the defense that the verdict in that trial brought about, recent significant cases and possible future changes in the defense.

LAW 8920 Introduction to Islamic Law Credits: 1-2
This course will provide a basic overview of Islamic law from its origins to the present. Students will study both primary and secondary sources of Islamic law. The course will also compare Islamic legal concepts to those in common law countries.

LAW 8921 Selected Projects in Law, Technology and Public Policy Credits: 1-6
This “studio” course involves the creation of interdisciplinary teams of law and graduate students from UMKC and other graduate and law schools and their media laboratories to work on cutting edge projects at intersections of law, technology and public policy.

LAW 8922 Access to Justice (A2J) Workshop Credits: 1-6
Students will identify an area of law or law process that can be made more accessible with the application of a technology solution. Specifically the students, after analyzing the area of law, will use the CALI A2J-Author guided interview software and document assembly software to create the forms and directions to assist self-represented litigants.

LAW 8923 Interdisciplinary Perspectives on Counseling an Aging Population Credits: 1-2
Study and practice of interdisciplinary perspectives of aging and core competencies in active listening, narrative translation, and service opportunity identification. Using a combination of readings, simulations, skills trainings, team preparations and presentations of case studies and individual reflective papers, the course is designed to engage professional students in understanding each discipline’s approach to describing the problem, interacting with patients/clients in identifying the problem and sharing perspectives on developing plans to prevent and address the problem with and on behalf of these patients/clients.

LAW 8925 Entrepreneurial Urban Development Credits: 1-4
The projects-based Entrepreneurial Urban Development course will feature interdisciplinary teams of faculty and graduate or upper-level undergraduate students providing analysis on real estate-based projects relating to the development or redevelopment of properties in urban areas, with a particular focus in, but not necessarily limited to, Kansas City, MO and Kansas City, KS. Students enrolled in the course will receive classroom instruction through modules related to development, land use controls and entitlement processes, affordable housing law and policy, cost analysis, market analysis, feasibility analysis, investment analysis, finance, incentives, design, urban planning, and community engagement.

LAW 9740A Missouri Appellate Practice Credit: 1
Basic rules and procedures for preparing an appeal in Missouri.
Academic Rules and Regulations for Juris Doctor Degree Program

• Attendance
• Examinations and Grades
• Credit in Lieu of Grade Option
• Appeal of Grades
• Withdrawal from Courses
• Scholastic Probation and Dismissal
• Latin Honors
• Dean's Honor List
• Employment by Juris Doctor Degree Candidates
• Plagiarism Policy and Guidelines
• Honor Code
Attendance

Preamble

All ABA-accredited law schools are required to abide by the Standards for Approval of Law Schools of the American Bar Association, including the rule that, "A law school shall require regular and punctual class attendance". This provision carries with it a clear, affirmative duty on the part of each institution:

- A law school shall demonstrate that it has adopted and enforces policies insuring that individual students satisfy the requirements of this Standard, including the implementation of policies relating to class scheduling, attendance and limitation on employment.

Consistent with these directives, the UMKC School of Law faculty believes that dependability is an essential characteristic of a good lawyer. The Law School’s objective is not only to ensure academic success, of which attendance is a major component, but also the development of good professional habits.

Over the years the Law School faculty has experimented with different attendance policies and has found that, without such a policy, attendance becomes noticeably lax, which in turn can contribute to poor performance on the bar examination.

Moreover, the faculty recognizes that sound academic reasons exist for adopting a uniform attendance policy that allows some classes to require even more stringent attendance requirements.

Finally, the faculty recognizes that, if it imposes a mandatory attendance policy on students, the faculty also needs to impose compulsory attendance-taking on itself, using a standardized system, to ensure uniformity, fairness and predictability in the implementation of its attendance policy.

Procedures

1. Every faculty member shall take attendance each day of class by distributing a sign-in sheet consisting of a current class roster, or a suitable alternative. If a sign-in sheet is used, each student in attendance must sign the roster next to his or her name. The faculty member or her administrative assistant shall deliver completed attendance sheets or the results of the suitable alternative method of taking attendance to the Director of Student Services promptly.

2. Each student shall be allowed absences up to, but not exceeding, two times the number of credit hours in a course. (For example, a student in a three-hour class that meets in two 75-minute sessions each week may miss a total of four such sessions. A student in a three-hour class that meets in three 50-minute sessions may miss a total of six such sessions.) In their discretion, faculty members may require fewer, but may not allow more, absences. If a faculty member intends to impose a more stringent attendance policy, he/she must notify students of the policy by announcement in class or in writing or by electronic posting during the first week of the semester.

3. Each absence exceeding the limitation imposed by paragraph 2, above, shall result in a one-step letter grade reduction for the course to be assessed by the Dean's Office, e.g., from "B" to "B-", or from "A-" to "B+". (For example, a student who misses five classes in a three hour class that meets in two 75-minute sessions will be assessed a one-step grade penalty. If that student misses a sixth class, he or she will be assessed an additional one-step grade penalty.) A faculty member may in his or her discretion in consultation with the Associate Dean impose other academic requirements in lieu of the grade reduction.

4. Accumulated absences exceeding three times the number of credit hours in a course shall result in the student's administrative withdrawal from the course provided the student is in good standing at that time, i.e., provided the student has not earned the grade of "F" for work completed at the time of withdrawal. Students who are not in good standing will receive a grade of "WF" for the course.

5. Students may appeal a grade-assessment or involuntary course withdrawal to the Associate Dean in writing within one week of notification of the assessment/withdrawal.

6. This policy does not affect a faculty member’s guidelines for the turning in of out-of-class assignments and papers. The individual faculty member, not the Dean's office, has the sole discretion to award late penalties for failing to turn in an assignment or paper on time or to excuse the late handing in of assignments and papers. For this reason, the Dean's office only oversees student absences from class.

7. Students and faculty will be responsible for monitoring their own compliance with this policy.

8. Falsification of attendance records constitutes a violation of the UMKC School of Law Honor Code.
Examinations and Grades

In most courses, the final grade is based largely on the student's achievement on an examination or final paper given at the end of the semester. In the first year of law school, examinations are anonymous, and papers are identified solely by number unless the circumstances of the assessment make this inappropriate. Each student is expected to take examinations at the scheduled times. For failure to do so, a grade of F is assigned.

Grading of student work is on a 4.0 system:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.3</td>
</tr>
<tr>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
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<td>B-</td>
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<td>C+</td>
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<td>D-</td>
<td>0.7</td>
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<tr>
<td>F</td>
<td>0</td>
</tr>
</tbody>
</table>

Some courses are graded on a pass/fail basis.

A student receiving a grade of F in a required course must repeat and pass the course. Grades of F remain on a student's transcript and count toward a student's grade-point average even if a course for which an F is given is repeated and passed.

The temporary grade of I (incomplete) is recorded when the student has not completed the work required for the course. It may only be entered with the written permission of the professor teaching the course. If the work is not completed and a permanent grade not submitted to the school's records office by the end of the following semester, the I grade will be replaced with a grade of F.

Exam Tardiness:

Students are expected to be in their seats five (5) minutes prior to the start of the exam. Absent exigent circumstances, students who arrive after the exam has started must begin their exams immediately and WILL NOT receive additional time (this also applies to time used to set up examsoft).

Final Examination Rescheduling Policy

A student may request that one or more final examinations be rescheduled under the following circumstances:

- Two final examinations in the same calendar day.
- An evening final examination followed by a morning final examination the next calendar day.
- Three final examinations on three consecutive days (in the first week of examinations only).
- Four final examinations in five days (in the first week of examinations only).
- An emergency warrants rescheduling (request must be documented).

The policy with respect to take-home final examinations is as follows:

- If the take-home final examination is "floating," (e.g. the student may choose when to take it within a defined timeframe) the student may not create a conflict by opting to take it during an interval conflicting with another final examination.
- A take-home final examination does not conflict with the preceding final examination(s) under the first or third rules above (two exams in the same calendar day or three exams on three consecutive days), if it may be checked out at least four hours after the prior examination is scheduled to conclude.
- A take-home final examination does not conflict with the preceding final examination(s) under the fourth rule above (four exams in five days), if it may be checked out on Friday, at least four hours after the prior final examination is scheduled to conclude.
• Perceived conflicts involving take-home final examinations of greater than 48 hours in length will be dealt with on a case-by-case basis. Requests to reschedule a final examination should be directed to the School’s Director of Student Support Services.

Once a conflict has been identified, the director will determine which final examination(s) to move, and to what day and time, in order to eliminate the conflict.

Requests to reschedule a final examination on short notice because of severe illness or an emergency must be documented, and will be considered on a case-by-case basis. All such requests must be presented to the Director of Student Support Services for the School of Law immediately (See Student Support Services (Law) (http://www.umkc.edu/umkc/catalog/html/stu-aff/0740.html)).

The policy with respect to requests to reschedule based upon disability is as follows:

• All disability-based requests must be approved by the Assistant Director for Student Disability Services (See http://www.umkc.edu/disability and Non-Discrimination Policy (http://www.umkc.edu/umkc/catalog-grad/html/law/0180.html), above).
• The Director of Student Support Services will reschedule a final examination because of disability only on request of the Assistant Director for Student Disability Services.
Credit in Lieu of Grade Option

After completion of the first year, a student may take one elective course ordinarily graded (except a 4-credit-hour class) on an ungraded basis. For a "pass" to be posted on the student’s record, work done for the course must be equivalent to a grade of C- or better; otherwise, the actual grade received will be posted. If students are taking a graded course that is required for an emphasis, the student may not exercise this ungraded option and also have the course count toward the emphasis.

The student must make this election before the beginning of the semester by completing and filing the appropriate form (available at the Law School) in person at Registration and Records (Administrative Center (http://www.umkc.edu/virtualtour/admincenter.asp), Room 115, 5115 Oak).
Appeal of Grades

Students are responsible for meeting the standards of academic performance established for each course in which they are enrolled. The establishment of the criteria for grades and the evaluation of student academic performance are the responsibilities of the professor.

The school's grade appeal procedure is available only for the review of allegedly capricious grading, and not for review of a professor's evaluation of a student's academic performance.

Capricious grading, for grade appeal purposes, consists only of any of the following:

- The assignment of a grade to a particular student on some basis other than the performance in the course.
- The assignment of a grade to a particular student by resort to more exacting or demanding standards than were applied to other students in the course.
- The assignment of a grade by a substantial departure from the professor's previously announced standards.

1. **Step 1:** The student should first discuss the course grade fully with the professor. This must be done within six weeks after the professor turns in the grade or the beginning of the succeeding regular academic semester, whichever is later.

2. **Step 2:** If the matter is not resolved through consultation with the professor, the student may appeal to the dean. This must be done within 10 days after notification of the decision of the professor. The appeal to the dean shall be in writing, and shall state which of the three charges of capricious grading is alleged to have been violated and shall specify such facts as are relied upon to support the charge.

3. **Step 3:** The dean shall review the appeal and, if found to be without merit, shall dismiss it. If it is determined that the appeal may have merit, the dean shall appoint an ad hoc faculty committee to review the record and provide advice on the matter. The grade in any course that is based on an anonymously-graded examination shall be presumed not to be capricious.

4. **Step 4:** If the dean believes a change in the grade to be warranted, he or she shall present a report to the faculty of the Law School in order that the faculty may act on the matter.

5. **Step 5:** If the student is dissatisfied with the action of the dean or the faculty, the student, within 10 calendar days of the decision of the dean, may appeal to the provost in accordance with the University of Missouri-Kansas City Procedure for the Appeal of Grades.
 Withdrawal from Courses

A student enrolled in a course cannot unilaterally withdraw from it but must secure permission from the associate dean to do so, and must follow prescribed withdrawal procedures. A student who is not in good standing in the course at the time of withdrawal (has earned a grade of F at that point) will receive a grade of F for the course.
Scholastic Probation and Dismissal

A student who obtains a GPA below 1.8 after completing twelve credit hours will be automatically dismissed from law school. Such student may apply for readmission in the summer of that academic year as under then existing standards and procedures for readmission, and may apply for admission, as a new student to the law school beginning no earlier than the following fall semester. Only under extraordinary circumstances beyond the student’s control will the Student Affairs Committee consider a student’s petition prior to that summer. If extraordinary circumstances exist, at least one faculty member of the committee and its chair must grant permission for early consideration.

A student will be placed on academic probation if his/her cumulative GPA falls below 2.0. Any student on probation will have one semester to raise the cumulative grade-point average to the required level (2.0) or be dismissed for academic deficiency. A student on academic probation may not work or engage in significant law school extracurricular activities.

Students readmitted to the School after dismissal on the grounds of academic deficiency will have one semester to raise the academic average to the required level, unless the faculty decides that a longer period is warranted.

If a probationary student successfully raises his or her average to the required level at the end of the probationary period and subsequently falls below the required level, unless the faculty decides that a longer period is warranted.

Readmissions Policy Guidelines

1. Readmissions Committee
   The Faculty Readmissions Committee considers all petitions for readmission in the first instance. Petitioners are afforded the opportunity for a personal interview with the Readmissions Committee.

2. Criteria for Petitions for Readmission
   a. No petition for readmission will be granted unless the petitioner establishes to the satisfaction of the Readmissions Committee in the first instance or the faculty upon appeal under 3.(b.) that:
      i. there is a substantial likelihood that the student will be able to make up his or her grade deficiency within an appropriate time and manner in accordance with a plan approved by the Readmissions Committee or the faculty, and
      ii. the grade deficiency is substantially attributable to circumstances or events which do not reflect on the student’s abilities to perform in law school and which do not reflect the absence of qualities which bear on the ability of a person to successfully deliver legal services. Circumstances that may meet this test are:
         1. serious personal illness or other medical problems, or
         2. the occurrence of an event or series of events causing severe emotional stress (e.g., death of a family member, divorce or separation from a longstanding partner, assault), or
         3. documented disability that can be, but has not previously been, reasonably accommodated, or
         4. any other serious problem significantly affecting law school performance.

   b. Any situation which the student feels contributed to his or her academic difficulties should be clearly stated in the petition for readmission and documented to the extent practicable. Remedies the student wishes to see taken should also be addressed in the petition. The petitioner must certify the truthfulness of all statements provided in the petition.

3. Decisions to Admit or Deny Readmission
   a. Decisions to Admit
      i. If the decision of the Readmissions Committee is to readmit, that decision is final.
      ii. Upon a decision to readmit, the Readmissions Committee or the faculty shall construct a plan and specify conditions for remedying the grade deficiency. Ordinarily, the student will be required to raise his or her cumulative grade point average to a 2.0 within one semester. In appropriate cases, the Readmissions Committee or the faculty may specify additional conditions for remedying the grade deficiency.

   b. Decisions to Deny
      i. If the decision of the Readmissions Committee is to deny readmission and that decision is unanimous, there is no appeal permitted, except as detailed in B(iii.) below.
      ii. If the decision to deny readmission is not unanimous, the student has a right of appeal to the full faculty. [Automatic right to appeal]. If the faculty votes to deny readmission, that decision is final and no possibility of appeal within the Law School, campus, or university exists.
      iii. If there is no entitlement to appeal in accordance with the above provisions, then the Dean or his or her designee may, in that person’s discretion but only in extraordinary circumstances, refer an appeal from a Readmissions Committee decision to the faculty. Such referral shall be accompanied by a written explanation for the granting of the appeal. [Discretionary appeal]. A student must request the Dean’s review within ten days of notification of the committee’s decision. If the Dean or his or her designee decides not to refer to the faculty, that decision is final.

4. Notification of Decision of the Committee
a. After the Readmissions Committee deliberates, the petitioning student shall be notified either that
   i. the student is readmitted, or
   ii. the student is denied readmission and the decision is final, but that the student may seek leave to appeal from the Dean upon a showing of extraordinary circumstances or
   iii. the student is denied readmission but has the right to appeal to the faculty.

b. The full faculty shall constitute the appellate body for petitions after the fall semester. The executive committee of the faculty shall constitute the appellate body for petitions after the spring semester. Faculty may participate at their request in the faculty deliberations by teleconference.

5. **Attendance in Classes Pending Petition**
   a. Initial Petition
      Students may continue in their classes until either the dean makes a determination to deny referral to the faculty under 3.(b.)(iii.) or the faculty makes a determination under 3.(b.)(i) -(iii.). At that time, the student must cease attending classes if the decision is to deny readmission.
   b. Subsequent Petitions
      Students may not attend classes until the Readmissions Committee has made a decision to readmit under II(A) or the faculty has made a decision to readmit under 3.(b.)(ii)-(iii).
   c. Dismissal after completing twelve credit hours
      A student dismissed from the Law School for achieving a grade point average under 1.8 after completing twelve credit hours must cease attending classes immediately upon notification. The dismissed student may make an initial petition for readmission in the summer immediately following dismissal if the student started in the summer or fall. If the dismissed student started in the spring, the student may petition for readmission in the spring following dismissal. Dismissed students do not have the right to enroll or continue in any classes during the pendency of the readmission petition.

6. **Subsequent Petitions**
   a. Re-Petitions After Denial
      A subsequent petition is a petition that has previously been denied. A subsequent petition may be considered by the Readmissions Committee only if it presents new evidence. New evidence is evidence not available or not reasonably discoverable with a prior petition. Subsequent petitions shall be determined by the same process and standard of review as petitions for readmission.
   b. Petitions By Persons Who Have Previously Been Readmitted.
      Only in exceptional circumstances will a student who has previously been readmitted and subsequently dismissed be readmitted again.
Latin Honors

Three types of Latin honors are awarded to those UMKC School of Law graduates who have achieved academic distinction, they are:

- Summa Cum Laude ("with highest honor")
- Magna Cum Laude ("with great honor")
- Cum Laude ("with honor")

While the University's degree regulations provide some restrictions on the number of graduates in each class that may receive Latin honors which may reduce the percentage of students graduating with Latin honors in each category, in general, Latin honors are awarded as follows:

1. Summa: A student with at least a 3.7 GPA who is also ranked in the top 5 percent of the graduating class.
2. Magna: A student with at least a 3.5 GPA who is also ranked in the top 10 percent of the graduating class.
3. Cum Laude: A student who is in the top 20 percent of the graduating class.
Dean's Honor List

The Dean's Honor List recognizes students who have demonstrated academic excellence in a semester. To be so recognized, a student must have achieved at least a 3.0 GPA for the semester while taking at least 8 credit hours of law school courses, with at least 2 graded law school courses and at least 4 graded law school credit hours. A student will not be on the Dean’s Honor List if the student has any incomplete grades in graded courses that semester. The names of the students on the Dean's Honor List will be announced after each Fall and Spring semester.
Employment by Juris Doctor Degree Candidates

Full advantage of the opportunity for a sound legal education only can be gained by devotion of sufficient energy and attention to legal studies. The excessive diversion of time and energy to employment can seriously impair success in law school and preparation for law practice. For this reason, full-time first-year law students should not engage in any outside work, and upper-class students should not engage in excessive outside work. UMKC School of Law defines “excessive outside work” as work in excess of 20 hours per week during the academic term. Full-time students on academic probation may not have outside work.
Activities and Services

- Professional and Social Activities (p. 1356)
- Financial Aid (p. 1355)
- Student Services
- Admission to the Bar (p. 1364)
- Internal Communication
- Career Services (p. 1365)
Fee Information

Educational fees and student program/use fees are set by the University of Missouri Board of Curators. For the most current fee schedule, contact the Cashier's Office at (816) 235-1365 or visit their Web site at http://www.umkc.edu/adminfinance/finance/cashiers/.
Financial Aid

For information on financial aid, contact the UMKC Financial Aid and Scholarships Office at (816) 235-1154 or visit their Web site at http://www.sfa.umkc.edu.
Professional and Social Activities

Student Organizations
At UMKC, the law school experience extends far beyond the classroom. We offer many ways for students to get involved through organizations matching a variety of interests within the law school and the larger university community. These organizations are listed at the law school’s website. (http://law.umkc.edu/prospective-students/life-at-umkc/student-organizations)

Scholarly Publications
The UMKC School of Law offers several opportunities for students to develop research, writing and editorial skills through membership on the staff of one of the law school’s three journals: (http://law.umkc.edu/academics/journals) the UMKC Law Review, the Urban Lawyer, and the Journal of the American Academy of Matrimonial Lawyers.

Competitions
UMKC Law School has established a strong tradition of excellence in national and regional skills competitions. Students may participate as a member of one of the law school’s various lawyering skills competition teams.

Clinics and Internships
Through its various clinical opportunities the law school serves the urban community and provides important opportunities for students to gain valuable experience. More information can be found at the law school’s website. (http://law.umkc.edu/academics/clinical-programs)

International Programs
Through its study-abroad opportunities (http://law.umkc.edu/academics/international-programs), students at the law school can gain valuable global perspectives on the law. Summer study programs permit students to visit China or Ireland and Wales while semester-long study abroad programs are available for students desiring more in-depth experiences abroad.
General Information

- History, Vision, Mission & Values (p. 1358)
- Accreditation
- Fee Information (p. 1354)
- Nondiscrimination Policy
History

HISTORY

In 1895, three young lawyers with energy and vision, William P. Borland, Edward D. Ellison and Elmer N. Powell, founded the Kansas City School of Law with the active assistance of leading members of the bench and bar. Borland, the first dean of the school, was elected to Congress in 1910 and was succeeded by Ellison, who served as dean until the School of Law merged with the University of Kansas City in 1938. After affiliation with the University of Missouri System in 1963, the school assumed its present name as the University of Missouri-Kansas City School of Law.

VISION

To be a model urban public law school for the 21st century that economically and efficiently delivers excellent legal education, serves as an intellectual leader in law, and increases access to justice for our community

MISSION

To prepare students to practice law with the competencies needed to integrate academic theory and practical skills to become expert problem-solvers and trusted advisors who serve their clients and their communities in the interests of justice; to provide expertise to benefit our many constituencies through scholarship and engagement, and to increase access to justice through research and service to our community

VALUES

We value:

- Respect for law and lawyers
- Commitment to the rule of law and to justice
- Professionalism, integrity and excellence in everything we do
- Respect for interdisciplinary understandings in advancing law and effective legal practice
- Creativity and innovation and the role of entrepreneurship in advancing the profession and economic development
- The role of advocacy and persuasion to effect positive resolution of disputes and needed social change
- Diversity of backgrounds and views, inclusion and empowerment, and access to law and legal education
- Service to our constituencies, with particular regard to our urban community and its families and children
Accreditation

The Council of the Section of Legal Education and Admissions to the Bar of the American Bar Association (http://www.americanbar.org/groups/legal_education/about_us/section_staff.html) is the recognized national agency for accreditation of J.D. programs. UMKC School of Law is accredited by the American Bar Association and is a member of the Association of American Law Schools.

UMKC LAW SCHOOL POLICY ON STUDENT COMPLAINTS REGARDING ACCREDITATION STANDARDS

UMKC School of Law values student input regarding any aspect of the educational process and encourages students to raise concerns and suggestions at any time with the Dean or any Associate Dean. Students’ concerns with accreditation standards or any other matter may often be resolved quickly and directly without the need for formal complaint. If, however, a student believes that his or her concerns regarding the law school’s compliance with ABA accreditation standards has not been resolved or chooses to forgo informal complaint mechanisms, the following formal complaint procedure is available.

Student Complaints Regarding Compliance with Accreditation Standards

As an ABA-accredited law school, The University of Missouri-Kansas City is subject to the ABA Standards for Approval of Law schools. The Standards may be found at http://www.americanbar.org/groups/legal_education/resources/standards.html. Any student at the School of Law who wishes to bring a formal complaint to the Administration of the School of Law of a significant problem that directly implicates the School’s program of legal education and its compliance with the ABA Standards should take the following steps:

1. The student complaint should be submitted in writing to the Dean or any Associate Dean of the School.
2. The writing should describe in detail the behavior, program, or process complained of, and demonstrate how it implicates the School’s program of legal education and the School’s compliance with a particular identified ABA Standard.
3. The writing must provide both the name of the student submitting the complaint, the student’s official University of Missouri-Kansas City email address, telephone number, and a street address for further communication about the complaint.

Procedures for Addressing Complaints Regarding Compliance with Accreditation Standards:

The Dean to whom the complaint is submitted should acknowledge the complaint within ten business days of receipt of the written complaint or as soon as is reasonably possible under the circumstances. Acknowledgment may be made by email, U.S. mail, or by personal delivery.

Within one month of acknowledgment of the complaint or as soon as is reasonably possible under the circumstances, the Dean or the Dean’s designee shall either meet with the complaining student or respond to the substance of the complaint in writing. The student should either receive a substantive response to the complaint or information about what steps are being taken by the School to address the complaint or further investigate the complaint.

Appeals may be taken to the Dean of the School, or, if the Dean of the School has decided the merits of the complaint, to the Executive Committee of the School of Law.

Any decision made on appeal by the Dean or the Executive Committee shall be final.

A copy of the complaint and a summary of the process and resolution of the complaint shall be kept in the office of the Dean of the School of Law for a period of eight years.

The Council of the Section of Legal Education and Admissions to the Bar requires that each law school provide a number of disclosures on its public website. Those disclosures can be found here (http://law.umkc.edu/aba-required-disclosures): http://law.umkc.edu/aba-required-disclosures.
The Rooniverse

Internal communications at the law school are conducted through the Law School's intranet: mylaw.umkc.edu, also known as RooLaw. RooLaw is used for all communications with large, identifiable groups of students, faculty, and staff, serving as the primary (and in many cases only) source of information about official and unofficial happenings at the School. A student's home page is a one-stop shop for important information about courses, announcements, events, deadlines and the like.
The Leon E. Bloch Law Library is not only a place to study, but a laboratory for students to master legal research skills, both in traditional print and electronic media. In fall 2011, a newly renovated library space opened. The space is designed to focus on first year legal research and writing and it provides a new collaborative technology learning lab to facilitate mastery of on-line legal research skills. In 2010, space in the first floor of the library was converted to provide three additional study rooms for students and a student lounge.

The library serves as a forum for self-directed learning; a place students take control of their educational experience through researching selected paper topics and their own law review notes.

The library contains holdings in major areas of legal scholarship and practice. It is home to rare, early seventeenth century editions of Sir Edward Coke’s treatises and case reports. It also preserves the Charles D. Gould Jr. Collection, consisting of photographs and memorabilia from the Nuremberg trials. The collection focuses on trial advocacy, urban law, family law, small business entrepreneurship, and tax law. The library’s foreign law holdings are targeted for expansion and access to historical materials have dramatically expanded. What is not held in print in the library, or in its many database services, is conveniently available through the library’s online catalog request and delivery service. This service provides access to seventy Missouri libraries and about 18 million items. The service includes access to the holdings of the three other law school libraries in Missouri. Additional hard to locate items can usually be retrieved through other specialized interlibrary loan services. Besides its collections, the UMKC’s law library is especially strong with respect to the expertise of its librarians, most of whom teach courses in legal research and have practiced law for many years or worked as paralegals.

### Electronic Resources

Technology has reshaped legal publishing in ways that will forever alter how attorneys and judges approach their work. The information professionals of the Leon E. Bloch Law Library have embraced this transformation in a variety of ways. The new Courtney Turner Trust Collaborative Technology Classroom allows for creative use of technology using laptops and cutting-edge software in both a classroom setting and for student group study. Stand-alone computers that allow access for research on the Internet, printing, and numerous database services are available as well. A fee is charged for some law student printing and for all other patron printing. The Library also provides a scanner and a dedicated workstation for the visually impaired. In addition, each law student receives a password free of charge for accessing law school and university databases from home or at other locations on campus. Wireless access to the Internet is provided to students throughout the law school and library. Perhaps, unique among law schools, the newly renovated lower level of the Library hosts a free laptop clinic, where law students can go with computer and technology problems, many of which can be fixed at the clinic. In Spring 2012, the Library installed state of the art book scanners on all three library floors. The scanners will provide digitization workflow solutions for library business processes, student needs, and other law school business processes. The scanners can create PDFs, OCR documents, as well as audio files for the visually impaired.
Nondiscrimination Policy

The Board of Curators of the University of Missouri and the University of Missouri-Kansas City are committed to the policy that there shall be no discrimination on the basis of race, color, creed, sex, sexual orientation, age, national origin, disability or Vietnam era veteran status. For additional information, see the Statement of Human Rights information included in the Introduction section of this catalog.
Disabled Student Services

The law school provides students with a variety of programs to support their academic success, through the office of students services (http://law.umkc.edu/prospective-students/life-at-umkc/student-services) and the law school strategies program. (http://law.umkc.edu/prospective-students/studying-law-at-umkc/law-school-strategies-program)

The University of Missouri-Kansas City endeavors to make all activities, programs and services accessible to students with disabilities. A campus coordinator is available to assist students with a documented disability to arrange for reasonable accommodations concerning all aspects of campus life. It is recommended that students contact the coordinator at least six weeks prior to the beginning of classes to arrange appropriate documentation and reasonable accommodations in the classroom. For information call (816) 235-5696. Individuals with speech or hearing impairments may use Relay Missouri, 1-800-735-2966 (TT) or 1-800-735-2466 (voice).
Admission to the Bar

Graduation from law school does not guarantee admission to the bar.

In addition to a bar examination, there are character, fitness, and other qualifications for admission to the bar in every U.S. jurisdiction. Applicants are encouraged to determine the requirements for any jurisdiction in which they intend to seek admission by contacting the jurisdiction. Addresses for all relevant agencies are available through the National Conference of Bar Examiners (http://www.ncbex.org).

UMKC invites representatives from the Missouri and Kansas Bar Examiners to visit the Law School, participate in a Bar convocation and provide one-on-one meetings with students requesting them to help in successfully meeting character and fitness requirements.

UMKC’s support for its students does not end at graduation. UMKC continues to assist our students as they face the last hurdle to practicing law. The bar examination for any state will be one of the most intellectually challenging experiences of any law school graduate’s life. The stakes are high, as is the attendant stress. UMKC aids our students by supplementing their bar preparation from commercial vendors with a unique program focused on the strategies and tactics to focus their preparation in order to pass the bar exam.

To learn more about the UMKC Bar Exam Prep Program, click here (http://law.umkc.edu/academics/bar-prep).
Career Services

The Law School Career Services Office (CSO) provides career planning, strategy counseling, and employer information to the student body and alumni. CSO also handles all employer outreach, organizes employer events, teaches strategy workshops, and acts as a liaison to the legal community. More information on CSO programs and services can be found at the career services webpage (http://law.umkc.edu/prospective-students/life-after-umkc/career-services).

In accordance with Section 6-3 of the Bylaws of the Association of American Law Schools and Standard 211(d) of the American Bar Association, the University of Missouri-Kansas City School of Law is committed to the principle of equal employment opportunity for all its students and graduates, commensurate with their abilities and not limited by invidious discrimination, including discrimination based on, race, sex, age, religion, color, national origin, handicap, disability, sexual orientation, or any basis forbidden by applicable law or university regulation.
J.D./MBA and J.D./M.P.A. Combined-degree Programs

The School of Law has established combined-degree programs with the Henry W. Bloch School of Business and Public Administration. The program allows students to earn a juris doctor degree and a master of business administration or a master of public administration degree on an accelerated basis through cross-acceptance of some credit hours.

Applicants to the program must satisfy the admission requirements of each school and, if admitted into the program, may enroll in the first year of law school either before or after beginning M.B.A. or M.P.A. courses. Further information on admission and dual-degree requirements is contained on the School’s Web site (http://law.umkc.edu/academics/degree-program/dual-degree-options) at http://law.umkc.edu/academics/degree-program/dual-degree-options/

Student Learning Outcomes

Students will demonstrate mastery of core doctrinal knowledge

Students will demonstrate mastery of the skills necessary for objective legal analysis

Students will demonstrate mastery of the skills necessary for effective legal research.

Students will demonstrate mastery of legal writing across formats

Students will demonstrate mastery of the duties of attorneys as members of the legal profession

Students will demonstrate ability to work with people in a professional environment

Students will demonstrate competency in professional work habits

Students will demonstrate entry-level proficiency in lawyering skills
Juris Doctor Degree

Program Description

The law school's Juris Doctor degree program is designed to prepare students for the general practice of law and for policy-forming functions in government, business and other organizations in society. Courses provide students with a basic knowledge of the principles and processes of the Anglo-American system of law and of the integration of law into other disciplines and institutions.

The curriculum and program recognize that in order to be of the utmost service to clients, the lawyer must "see life whole" and appreciate the relationships among legal, social and political aspects of human endeavor. They also recognize that the best interests of society require a lawyer to be a thinker and scholar as well as a skilled technician.

Both the curriculum and methods of instruction are designed to meet these objectives. Although the casebook method is the predominant form of classroom instruction in larger classes, the faculty also employ other approaches. Classes such as lawyering skills, negotiating mergers and acquisitions, mediation, and law practice management combine theory with opportunities to learn about lawyering first-hand. Many of the classes use documents and "real life" problems to demonstrate concepts studied in class. The curriculum also includes opportunities for research and writing, seminar discussions, clinical instruction and skills training.

Academic Support and Success (p. 1368)

Admission (p. 1369)

Scholarships (p. 1371)

Six-Year Law Scholars Program (p. 1372)

Areas of Study

Law students do not have a formal major, but have options for obtaining sequenced and advanced training in areas of interest to them, including:

- Advocacy and Litigation
- Business and Tax Law
- Commercial Law
- Estate Planning and Administration
- Criminal Law and Procedure
- Domestic Relations
- Labor and Employment
- International Law
- Property and Real Estate
- Civil Liberties and Civil Rights
- Environmental Law

In addition, through externships, competitions, journals and student organizations, students are able to develop skills and contacts in specialized areas of the law.

Students may also elect to participate in one of the Law School’s formal areas of emphasis within the Juris Doctor degree program:

- Business & Entreprenurial Law (p. 1379)
- Child & Family Law (p. 1382)
- Intellectual Property (p. 1385)
- International, Comparative & Foreign Law (p. 1387)
- Advocacy (p. 1375)
- Urban, Land Use and Environmental Law (p. 1389)
Academic Support and Success

The School of Law is committed to its students’ success. Although the study of law is a difficult and challenging endeavor, the school attempts to work with students to maximize their efforts and see them through the process successfully. Several programs contribute to this effort.

The Law School Strategies Program (http://law.umkc.edu/prospective-students/studying-law-at-umkc/law-school-strategies-program) is a comprehensive program including academic skills lectures and courses, study group opportunities, and individualized assistance.

The Law School Strategies Program is available to all students. It is especially beneficial for those students who feel they need assistance in the transition to law study. The Law School Strategies Program is not remedial in nature. Rather, it is designed to maximize the potential of students who participate by teaching skills and strategies for success in law school.

The program begins with a one-week orientation, during which students are introduced to essential learning strategies for law school. During the academic year, the program director and other faculty provide academic skills lectures and workshops focusing on learning styles, learning strategies, time management and development of skills necessary for law school success.

Study group programs maximize student learning through peer teaching. In Structured Study Groups, first-year students have the opportunity to participate in guided study groups in one of their first-year courses. The groups are led by an upper-class student who has successfully completed that course. The student leader attends the class with the first-year students and conducts weekly small-group sessions in which the leader models successful learning strategies for that class. These year-long study group programs are open to all students.
Admission to the Juris Doctor Program

Eligibility
To be eligible to apply for admission to the School of Law's Juris Doctor (J.D.) degree program, a person must have either:

• A bachelor’s degree based on a program of courses with substantial intellectual content from an approved institution; or
• Completed at least 90 acceptable hours of credit in courses with substantial intellectual content in an approved institution, completed all non-elective coursework toward a bachelor’s degree and made arrangements with the school that will award the degree to accept law school credits for the remainder of the work required to earn that degree, so that the student will earn the degree prior to the granting of the J.D. degree.

Criteria for Admission
The School of Law restricts the number of students admitted each year in order to maintain a favorable faculty-student ratio and to provide the best possible legal education for each student enrolled. Because many more people apply to the School of Law than there are seats available, admission is competitive.

While substantial weight is given to each applicant's LSAT score and undergraduate GPA, the School of Law and its faculty also consider other factors in shaping an entering class. These factors, consistent with the University's values of diversity, inclusiveness and respect, include:

• Advanced or specialized educational achievement demonstrating potential for academic excellence in the study of law.
• Contributions to the cultural diversity of the School of Law.
• A history of overcoming challenges and barriers based on societal discrimination or economic disadvantage.
• Demonstrated leadership qualities.
• A significant and sustained commitment to public or community service.
• Other accomplishments or qualities that indicate the applicant will contribute to the School of Law's academic and service missions.

Admissions Process
Applicants are required to submit a completed application form, the application fee, a personal statement, a resumé, official copies of all undergraduate and graduate transcripts, and two letters of recommendation. All of these items must be submitted through the Credential Assembly Service provided by the Law School Admission Council (LSAC). Instructions for this service may be found on the LSAC website. Once all materials have been submitted, a file is considered complete and ready for review.

The Admissions Committee invites qualified applicants to have a personal interview as part of the application process. An interview is required before an offer of admission is made for first-year J.D. applicants. The law school makes admission decisions on a rolling admissions basis. That is, decisions are made as files are completed. This process begins in September of the year preceding the academic year applicants are applying for and continues until sufficient admissions are granted to fill the entering class. Accordingly, applications should be submitted as early as possible.

Seat deposit fees must be paid by specified deadlines to secure a spot as a student at the School of Law. These fees are nonrefundable but will be credited toward the cost of tuition and fees for the first semester of law school classes. Students planning to start law school in the Spring semester typically will have seat deposit fees due in late November. Students planning to start law school in the Summer semester typically will have seat deposit fees due in April. Students planning to start law school in the Fall semester typically will have a first seat deposit fee due in April and a second seat deposit fee due in May. The exact deadlines for seat deposit fees will be specified when an applicant receives an offer of admission from the School of Law.

LSAT/LSAC
In order to gain admission, an applicant must take the LSAT. The test may be taken at various locations, including UMKC. It normally should be taken no later than October for purposes of admission for the following Spring semester and no later than February for purposes of admission for the following Summer or Fall semester. Information concerning the test is available online at http://www.lsac.org/ or by writing to:

Law School Admission Council (LSAC)
662 Penn Street
Newtown, PA 18940

Applicants also must submit official copies of their college and university transcripts (and graduate school transcripts, if any) to LSAC via their Credential Assembly Service. Further information and a registration form for this purpose may be obtained at the website and mailing address above. LSAC will automatically provide LSAT scores and copies of transcripts to the School of Law once an application has been submitted and processed.
Prerequisites

No undergraduate courses are specifically required for admission to the Law School. The best preparation is a broad liberal arts education designed to provide an understanding of the institutions and values with which the law deals and the development of those skills and habits of thought essential to legal reasoning.

Any course of study leading to an undergraduate degree will be sufficient for admission, as long as the emphasis was an intellectually demanding one that challenged the student to employ critical-thinking skills and communicate effectively. Courses with a strong emphasis on writing are particularly encouraged in light of the crucial role effective writing plays both in law school and law practice.

Matriculation Options: Full-Time and Part-Time Progress

Most students matriculate on a full-time basis. Some students, however, may do so on a part-time basis.

The opportunity to proceed part-time is designed for students who are unable to enroll on a full-time basis, such as those with family or career responsibilities. These students typically enroll in 8 to 9 hours of classes each semester in the first year, and 8 to 12 hours per semester thereafter. In all other respects, students enrolled part-time are required to satisfy all graduation requirements applicable to full-time students, including the requirement that they complete all degree requirements within five years (unless special permission is granted to extend that time limit). Part-time students develop programs with the associate dean that are designed to parallel, as much as possible, the sequence of courses for full-time students.

A full-time student may not become a part-time student without permission of the associate dean. Part-time students may not become full-time students until they have completed all first-year courses, unless they obtain permission to proceed full-time from the associate dean. Once part-time students have completed all required first-year courses, they may enroll full-time or part-time for remaining coursework at their option. Students are cautioned, however, that enrollment in 13 or more hours triggers the rule limiting outside work to no more than 20 hours per week and full-time first-year law students should not engage in any outside work.

Admission with Advanced Standing

Except for transfer applicants enrolled at the University of Missouri-Columbia (to whom transfer is granted more liberally), an applicant for admission with advanced standing must meet the requirements applicable to entering students; be eligible to return as a student in good standing to their current law school; and present a letter from the Dean of their law school showing such eligibility. Transfer applicants typically have completed one full year of law study, and admission will be largely based on law school academic performance. For transfer applicants seeking to start courses at the School of Law in the Fall semester, an admissions decision generally would be made in the summer, as soon as the application is complete and the applicant’s current law school has issued grades for the Spring semester.

When a transfer applicant is admitted, the School of Law will review the work successfully completed by the transfer applicant at other law schools in order to determine how many transfer credits the applicant will be awarded and which of the School of Law’s course requirements the applicant has already fulfilled. The School of Law generally will award transfer credit for a maximum of 45 credit hours, but may grant special permission to give transfer credit for more than 45 credit hours.

Except in the case of students transferring from the University of Missouri-Columbia, hours for a course in which the transfer applicant received less than a C grade will not transfer. Although transfer credit will not be given for a course with a grade of C or below, the associate dean may opt to waive the need for a transfer student to retake the course. Grades earned at another law school are not transferred, nor do such grades count for class ranking purposes.

Admission Without Undergraduate Degree (90 Hour Program)

Students who have completed at least 90 acceptable hours of credit in courses with substantial intellectual content and have completed all non-elective coursework toward a bachelor’s degree, may be admitted on the condition that the undergraduate degree be earned prior to or simultaneously with the granting of the J.D. degree. This condition can only be met if the institution which will grant the undergraduate degree will accept credits earned in the UMKC School of Law.

Since the UMKC School of Law does not confer the undergraduate degree and assumes no responsibility in regard to it, it is the duty of the student to make certain that the requirements for the degree are satisfied. Questions concerning requirements for the undergraduate degree or of the transferability of law credits to complete the degree should be directed to the institution granting the undergraduate degree.

A letter from the institution confirming that it will accept credits earned in the UMKC School of Law to complete the undergraduate degree must be submitted as part of the application for admission.
Scholarships

Scholarship information is available at the law school's website (http://law.umkc.edu/prospective-students/financial-aid/scholarships) at http://law.umkc.edu/prospective-students/financial-aid/scholarships/.
Six-Year Law Scholars Program

For information on the six-year law scholars program, see the Pre-Law (p. 535) section of the catalog.
J.D. Degree Requirements

Student Learning Outcomes

Students graduating from this program will:

- Students will demonstrate mastery of core doctrinal knowledge.
- Students will demonstrate mastery of the skills necessary for objective legal analysis.
- Students will demonstrate mastery of the skills necessary for effective legal research.
- Students will demonstrate mastery of legal writing across formats.
- Students will demonstrate mastery of the duties of attorneys as members of the legal profession.
- Students will demonstrate ability to work with people in a professional environment.
- Students will demonstrate competency in professional work habits.
- Students will demonstrate entry-level proficiency in lawyering skills.

Required Courses

First Year Required Courses

All students must complete the following required courses during the first year:

Full-Time Progress

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FALL SEMESTER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LAW 8501</td>
<td>Contracts I</td>
<td>3</td>
</tr>
<tr>
<td>LAW 8634</td>
<td>Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>LAW 8531</td>
<td>Lawyering Skills I</td>
<td>3</td>
</tr>
<tr>
<td>LAW 8541</td>
<td>Property I</td>
<td>3</td>
</tr>
<tr>
<td>LAW 8511</td>
<td>Torts</td>
<td>3</td>
</tr>
<tr>
<td>SPRING SEMESTER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LAW 8521</td>
<td>Civil Procedure I</td>
<td>3</td>
</tr>
<tr>
<td>LAW 8631</td>
<td>Constitutional Law</td>
<td>4</td>
</tr>
<tr>
<td>LAW 8502</td>
<td>Contracts II</td>
<td>3</td>
</tr>
<tr>
<td>LAW 8532</td>
<td>Lawyering Skills II</td>
<td>2</td>
</tr>
<tr>
<td>LAW 8542</td>
<td>Property II</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>30</strong></td>
<td></td>
</tr>
</tbody>
</table>

1 Lawyering Skills I and II: These two first-year courses introduce students to legal reasoning; analytical and critical thinking; case research and analysis; legal writing, including office memoranda, briefs and letters to and on behalf of clients; advocacy; and all forms of legal research. They offer education in many of the fundamental skills and processes of legal practice through a combination of lecture classes and small group sessions. They are required of all first-year law students in order to supply a strong foundation of thinking, research and writing skills upon which all later, advanced courses will depend.

Part-time Progress

Students enrolled on a part-time basis must take three of the required courses, including Lawyering Skills, in their first year. The remaining courses must be completed in their second year of study.

Other Required Courses

Students must complete the following courses as a condition of graduation:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required to be Taken During the Summer Preceding or During the Fall of the Second Year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LAW 8601</td>
<td>Business Organizations</td>
<td>3</td>
</tr>
<tr>
<td>LAW 8552</td>
<td>Federal Taxation</td>
<td>3</td>
</tr>
<tr>
<td>LAW 8522</td>
<td>Civil Procedure II</td>
<td>2</td>
</tr>
<tr>
<td>Required to be Taken During the Summer Preceding or During the Second Year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Required to be Taken Prior to Graduation.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### J.D. Degree Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 8635 Criminal Procedure I</td>
<td>3</td>
</tr>
<tr>
<td>LAW 8731 Professional Responsibility</td>
<td>2</td>
</tr>
<tr>
<td>A course that fulfills the school's jurisprudential requirement</td>
<td>2-3</td>
</tr>
<tr>
<td>Experiential Course or courses (see below)</td>
<td>6</td>
</tr>
</tbody>
</table>

**Total Credits** 24-25

**Experiential Course Requirement**
A student must take 6 credit hours in a course or combination of courses that meet the school's experiential course requirement. These courses are primarily clinical, internship, or skills simulation courses. Courses fulfilling the requirement will be designated by the faculty.

**Graduation Requirements**

**Requirements for the J.D. Degree**
1. Completion of 91 credit hours, 80 of which must be classroom credits.
2. A cumulative GPA of at least 2.0 (see Administrative Rules and Regulations, Scholastic Probation and Dismissal, in this section)
3. Completion of all required courses (see Required Courses in this section).
4. Fulfilling the school's research and writing requirement. This requires students to have a rigorous writing experience evidencing legal analysis resulting in a paper of professional quality.
5. Regular and punctual class attendance.
6. Successful completion of all coursework within five years from the day students began their course of studies leading toward the degree. A student will not be allowed to enroll in any course after the five-year period.
Advocacy Emphasis Area Requirements

Emphasis in Advocacy

Admission Requirements

Selection of Students for Admission to the Emphasis in Advocacy

• Deadline for admission to the Emphasis in Advocacy program: Students should apply not later than their fifth semester of law school. Decisions as to whether a student will be admitted to the Emphasis in Advocacy will be made in the semester in which the student applies.

• Procedure and Criteria for Selection:
  • The maximum number of students who will be permitted to enter the emphasis each year will be set by the director of advocacy taking into account the ability to provide adequate supervision and advising.
  • The director of advocacy will select the students to be admitted to the program. Criteria to be considered may include previous general academic performance in law school, previous academic performance in courses seen as particularly relevant to advocacy, level of interest, and ability to identify an advisor willing to advise and supervise the student.
  • No student shall be admitted to the Advocacy program unless he or she has a grade-point average of 2.7 or above in all law school classes previously taken.
  • Part-time Students and Other Students with Unusual Schedules: The director of advocacy is authorized to make appropriate adjustments in the deadlines for part-time students or other students whose schedules do not substantially conform to the six semester paradigm.

Student Learning Outcomes

Students graduating from this program will:

• Students will demonstrate mastery of core doctrinal knowledge within emphasis area.
• Students will demonstrate mastery of skills necessary for objective legal analysis.
• Students will demonstrate mastery of the skills necessary for effective legal research in the emphasis area.
• Students will demonstrate mastery of legal writing with particular emphasis on persuasive writing.
• Students will demonstrate mastery of the duties of attorneys as members of the legal profession.
• Students will demonstrate ability to work with people in a professional environment
• Students will demonstrate competency in professional work habits
• Students will demonstrate entry-level proficiency in lawyering skills essential to advocacy.

Important Note: Because the School is committed to keeping up with changes in the practice of law, the requirements for emphasis areas may change during the course of a student's enrollment at the School. The requirements at the time a student is granted admission into the emphasis area are the requirements that govern completion of the student's emphasis requirements. For possible revised requirements that will take effect with the next academic year, see http://www1.law.umkc.edu/Academic/Emphasis/Litigation.pdf

General Requirements

Minimum Total Hours Required

1. A student must take a total of at least 26 hours in approved courses. Approved courses are those listed as "Required Courses," "Grouped Required Courses" and "Elective Courses".

2. No more than three hours of required upper-level courses, (including those used by the student to satisfy the Jurisprudence requirement) may count toward the required 26 hours.

3. A course (including Law 8746) used to satisfy the student's writing requirement (see below) may be counted toward the total hours requirement even if it is also used to satisfy the student's Research and Writing Requirement.

Writing Requirement

1. Each student in the program must complete a written project, approved by an emphasis area supervisor, on a topic dealing directly with litigation.

2. The written project must be of a scope and quality that would satisfy the law school's research and writing requirement for a J.D. degree.

3. The written project may satisfy both the program's requirement and the J.D. requirement.
Practical Skills Component
All students in the program must take either Introduction to Appellate Advocacy or Trial Advocacy I and at least one of the following courses:

- Advanced Legal Writing: Litigation Drafting
- Appellate Advocacy - Ellison Moot Court
- Appellate Advocacy - National Moot Court
- Trial Advocacy II
- Trial Advocacy III

1. Mastery of Clinical Advocacy
2. Lawyering Skills Competition: App. Ad. Team
3. Lawyering Skills Competition: Client Counseling Team
5. Lawyering Skills Competition: Negotiation Team

Ethics Component
1. Each student in the program must participate in at least one, substantial, non-credit workshop on ethical issues for litigators.
2. Workshops will be organized by the advisors and conducted by faculty, practicing lawyers, or judges.

Research Component
1. Each student in the program must participate in at least one, half-day, non-credit workshop on research materials and sources frequently consulted by litigators on issues directly related to the litigation process.
2. Workshops will be organized by the program advisers and the librarians. They will be conducted by faculty, librarians, practicing lawyers or judges.

Supervising and Advising Component
1. Each student in the program shall be assigned an advisor.
2. Each student in the program shall meet with his or her advisor not less than twice a semester.

Curriculum Requirements

Distribution of Courses
1. Required Courses: All students in the program must take each of the following courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 8521</td>
<td>Civil Procedure I</td>
<td>3</td>
</tr>
<tr>
<td>LAW 8522</td>
<td>Civil Procedure II</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8532</td>
<td>Lawyering Skills II</td>
<td>2-3</td>
</tr>
</tbody>
</table>

2. Grouped Required Courses:
All students in the program must also satisfy the Core Course Requirement, the Advanced Course Requirement, and the Skills Requirement set forth below:
a. Core Course Requirement: All students in the program must take at least two of the following core courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 8702</td>
<td>Conflict of Laws</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8765</td>
<td>Federal Jurisdiction</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8822</td>
<td>Post Conviction Remedies</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8711</td>
<td>Remedies</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8706</td>
<td>Complex Litigation</td>
<td>2-3</td>
</tr>
</tbody>
</table>

b. Advanced Course Requirement: All students in the program must take at least one of the following advanced courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 8732</td>
<td>Lawyers and Dispute Resolution</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8850</td>
<td>Applied Evidence</td>
<td>1-3</td>
</tr>
<tr>
<td>LAW 8636A</td>
<td>Federal Trial Practice</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8791</td>
<td>Civil Rights</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8820</td>
<td>Criminal Trial Techniques</td>
<td>2</td>
</tr>
</tbody>
</table>
c. Skills Requirement: All students in the program must take either Law 8747 Introduction to Appellate Advocacy or Law 8700 Trial Advocacy I and at least one of the following courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 8707C</td>
<td>Advanced Legal Writing: Litigation Drafting</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8747</td>
<td>Introduction to Appellate Advocacy</td>
<td>1</td>
</tr>
<tr>
<td>LAW 8748</td>
<td>Appellate Advocacy - Ellison Moot Court Competition</td>
<td>2</td>
</tr>
<tr>
<td>LAW 8775</td>
<td>Appellate Advocacy National Moot Court Competition</td>
<td>1-2</td>
</tr>
<tr>
<td>LAW 8903</td>
<td>Fundamentals of Legal Investigations</td>
<td>2</td>
</tr>
<tr>
<td>LAW 8700</td>
<td>Trial Advocacy I</td>
<td>2</td>
</tr>
<tr>
<td>LAW 8703</td>
<td>Trial Advocacy II</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8705</td>
<td>Trial Advocacy III</td>
<td>2</td>
</tr>
<tr>
<td>LAW 8704A</td>
<td>Lawyering Skills Competition-Appellate</td>
<td>1-2</td>
</tr>
<tr>
<td>LAW 8704C</td>
<td>Lawyering Skills Competition-Client Counseling Team</td>
<td>1-2</td>
</tr>
<tr>
<td>LAW 8704N</td>
<td>Lawyer Skills Competition-Negotiation Team</td>
<td>1-2</td>
</tr>
<tr>
<td>LAW 8704I</td>
<td>Lawyering Skills Competition</td>
<td>1-2</td>
</tr>
<tr>
<td>LAW 8708</td>
<td>Master Clinical Advocacy Course</td>
<td>3-4</td>
</tr>
</tbody>
</table>

3. Electives: The following electives may also help satisfy the minimum total hours requirement:

a. Clinics and Externships

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 8814E</td>
<td>Unemployment Compensation Clinic - Appellate Practice</td>
<td>2</td>
</tr>
<tr>
<td>LAW 8877</td>
<td>Bankruptcy Court Internship</td>
<td>1-3</td>
</tr>
<tr>
<td>LAW 8752S</td>
<td>Child &amp; Family Services Clinic</td>
<td>1-6</td>
</tr>
<tr>
<td>LAW 8713</td>
<td>Death Penalty Clinic</td>
<td>1-2</td>
</tr>
<tr>
<td>LAW 8768R</td>
<td>Department Of Labor Internship</td>
<td>1-3</td>
</tr>
<tr>
<td>LAW 8662F</td>
<td>Family Court Internship</td>
<td>1-3</td>
</tr>
<tr>
<td>LAW 8662</td>
<td>Federal Court Internship</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8656F</td>
<td>Federal Public Defender Internship</td>
<td>1-3</td>
</tr>
<tr>
<td>LAW 8713P</td>
<td>Wrongful Convictions Clinic</td>
<td>1-6</td>
</tr>
<tr>
<td>LAW 8656P</td>
<td>Jackson County Prosecutor Internship</td>
<td>1-3</td>
</tr>
<tr>
<td>LAW 8656C</td>
<td>Jackson County Prosecutor Internship-Family Law Prosecution</td>
<td>1-3</td>
</tr>
<tr>
<td>LAW 8790</td>
<td>Legal Aid Internship</td>
<td>1-3</td>
</tr>
<tr>
<td>LAW 8656A</td>
<td>Missouri Attorney General's Office Internship</td>
<td>1-3</td>
</tr>
<tr>
<td>LAW 8656</td>
<td>Public Defender Trials Internship</td>
<td>1-3</td>
</tr>
<tr>
<td>LAW 8637R</td>
<td>U.S. Attorney's Office Law Internship</td>
<td>1-3</td>
</tr>
</tbody>
</table>

b. Other Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 8764</td>
<td>Administrative Law</td>
<td>1-3</td>
</tr>
<tr>
<td>LAW 8710</td>
<td>Lawyering Skills Teaching Assistant Methods</td>
<td>1-3</td>
</tr>
<tr>
<td>LAW 8820</td>
<td>Criminal Trial Techniques</td>
<td>2</td>
</tr>
<tr>
<td>LAW 8813</td>
<td>Employment Discrimination Law</td>
<td>2</td>
</tr>
<tr>
<td>LAW 8609</td>
<td>Ethical Issues In Family Law Representation</td>
<td>1-2</td>
</tr>
<tr>
<td>LAW 8735</td>
<td>Seminar In Famous Trials</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8743</td>
<td>Global Legal Systems</td>
<td>1-3</td>
</tr>
<tr>
<td>LAW 8746R</td>
<td>Independent Study</td>
<td>0.5-3</td>
</tr>
</tbody>
</table>

(if approved by student’s emphasis area adviser on the basis that the course of study or legal research relates directly to litigation)
Any other course if, before beginning the course, the student obtains written approval from both the emphasis area adviser in consultation with the associate dean. Such approval shall not be granted unless the adviser finds that, in light of the student’s other courses and the student’s litigation-related goals, the course will advance the student’s study of litigation to an extent equivalent to other litigation electives.

Courses may be added or deleted from the lists contained in sections 1 through 3 above with approval of the advocacy emphasis committee and the faculty.

All emphasis students will be required to develop an electronic portfolio of self-selected documents and videos, and which will include a final skills assessment. Students will present their portfolio before a panel of two or three people including faculty and members of the bar.

**Graduation Requirements**

For a student to be recognized as having graduated with an Emphasis in Litigation, the student must have fulfilled the following requirements:

- The student must have satisfied all general and curriculum requirements set forth above.
- The student must have achieved a grade-point average of at least 3.0 in the field. This grade-point average shall be computed considering all Required Courses, Grouped Required Courses, and Elective Courses in the emphasis taken by the student, including any that exceed the minimum hour requirements for the Emphasis in Litigation.
Business & Entrepreneurial Emphasis Area Requirements

Emphasis in Business & Entrepreneurial Law

The Emphasis in Business and Entrepreneurial Law program is designed to provide within the J.D. degree a well-rounded course of study for students interested in an emphasis in business law and transactional practice.

Admission

To be admitted to the Emphasis in Business & Entrepreneurial Law program, an applicant must have a cumulative law school grade point average of at least 2.5, and must have a grade point average of at least 2.8 in all program courses or prerequisites which the student has completed prior to application for admission to the program. For this purpose, the two prerequisite Business and Entrepreneurial (Business Organizations and Federal Income Taxation) will be counted, along with all other J.D. program courses completed by the applicant prior to the date of application.

The deadline for application to the program shall be no later than the beginning of the second week of classes of the student’s sixth semester of law school. Any student who applies after the beginning of his or her fourth semester must demonstrate that the program can be completed by the end of the sixth semester of law school. Appropriate adjustments will be made to deal with part-time students not on the regular semester schedule. Exceptions to the deadlines may be made with approval of the Emphasis Faculty Advisors, by majority vote.

Student Learning Outcomes

Students graduating from this program will:

- Students will demonstrate mastery of core doctrinal knowledge within emphasis area
- Students will demonstrate mastery of skills necessary for objective legal analysis.
- Students will demonstrate mastery of the skills necessary for effective legal research in the emphasis area.
- Students will demonstrate mastery of legal writing with particular emphasis on transactional drafting.
- Students will demonstrate mastery of the duties of attorneys as members of the legal profession.
- Students will demonstrate ability to work with people in a professional environment
- Students will demonstrate competency in professional work habits
- Students will demonstrate entry-level proficiency in lawyering skills especially relevant to the emphasis area.

Important Note: Because the School is committed to keeping up with changes in the practice of law, the requirements for emphasis areas may change during the course of a student’s enrollment at the School. The requirements at the time a student is granted admission into the emphasis area are the requirements that govern completion of the student’s emphasis requirements. For possible revised requirements that will take effect with the next academic year, see http://law.umkc.edu/academics/emphasis-areas/business-entrepreneurship/

Requirements

Minimum Total Hours Required

The program will require satisfaction of the required courses (Group A) and a minimum of 9 credit hours of courses from the approved elective courses (Group B) listed below. Any course in Group A or B may be counted toward the required total hours even if it is also used to satisfy the student’s Emphasis Research and Writing Requirement.

Writing Requirement

Students must complete an academic research paper of high professional quality, sufficient to meet the Research and Writing Requirement standards of publishable quality, concerning a business or entrepreneurial law topic. The research paper must be certified as acceptable by one of the Emphasis Faculty Advisors. Students may fulfill this requirement, with a research paper on a business or entrepreneurial law topic, in conjunction with any of the Group A or B courses, or independently as part of the general J.D. Research and Writing Requirement, as part of an Independent Study option, or through one of the Law Schools’ journal offerings. There is no separate requirement that the research paper be graded.

Practical Skills Component

Students must complete at least one course containing a substantial practical skills component. The following courses satisfy this requirement:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 8757</td>
<td>Business Planning</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8837</td>
<td>Negotiating Mergers And Acquisitions</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8875</td>
<td>Real Estate Transactions</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8757R</td>
<td>Entrepreneurial Law &amp; Practice Clinic</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8638R</td>
<td>Entrepreneurial Lawyering: Solo And Small Firm Practice</td>
<td>3</td>
</tr>
<tr>
<td>LAW 8601L</td>
<td>Transactional Lawyering Skills Lab</td>
<td>1-2</td>
</tr>
</tbody>
</table>
Also, an Advanced Research course on business, tax or securities law, or on another area of law approved by the Emphasis Faculty Advisors.

In lieu of one of those courses, the Practical Skills Requirement may be met by such other internships, externships, simulation courses, drafting courses, or other courses designed to provide exposure to the type of work commonly performed by lawyers in the business and entrepreneurial law field, as the Emphasis Faculty Advisors find acceptable.

Ethics Component
Each candidate for the Emphasis must attend at least four clock hours of these ethics offerings prior to graduation, provided through lectures, seminars, workshops, or other instruction dealing with ethical issues that frequently arise in the business and entrepreneurial law field, as approved by the Emphasis Faculty Advisors.

Research Requirement
All students in the program must satisfy an advanced research requirement which provides familiarity with materials and sources frequently consulted by lawyers practicing in the business and entrepreneurial law field. Subject to approval by the Emphasis Faculty Advisors this may entail a separate course, a component of an existing course, a separate lecture, seminar or workshop offering, or demonstrably satisfactory training on advanced research in connection with the Emphasis Writing Requirement.

Curriculum Requirements

Prerequisites or Co-requisites

• Business Organizations
• Federal Taxation

Required Courses (Group A) (All must be taken on a graded basis)

• Securities Regulation
• Legal Accounting (or other approved prior accounting education)
• Either Taxation of Business Organizations; or Corporate Tax I and Partnership Tax
• Either Secured Transactions or Real Estate Finance

Grouped Required Courses (Group B) (Must take at least 9 credit hours, all taken on a graded basis, from among these courses)

• Business Planning
• Administrative Law
• Real Estate Finance (If not taken to satisfy a Group A course), Real Estate Finance or Legal Context of Real Estate Decision Making (only one of those three may be counted)
• Negotiating Mergers & Acquisitions
• Secured Transactions (If not taken to satisfy the Group A Required Courses requirement)
• Commercial Transactions
• Sales & Leasing
• Debtor/Creditor
• Bankruptcy or Debtor/Creditor (only one of those two may be counted))
• Entrepreneurial Legal Services Clinic or Entrepreneurship & New Venture Creation, (only one of those two courses may be counted)
• Entrepreneurial Lawyering: Solo & Small Firm Practice or Special Topics in Entrepreneurial Lawyer (only one of those two may be counted)
• Social Entrepreneurship Ventures or Social Venture Creation (only one of those two may be counted)
• Dispute Resolution & Lawyers, Arbitration, and Mediation (only one of those three may be counted.)
• International Business Transactions or Law of International Trade & Finance (only one of those two may be counted)
• Labor Law, Employment Discrimination Law, Employment Law (only one of those three may be counted)
• Intellectual Property Law, Copyright Law, Patent Law (only one of those three may be counted.)
• Antitrust and Fair Competition Law
• Tax Exempt Organizations

If a Group B course is properly counted toward the 9 credit hour Group B requirement and also listed above as a course satisfying the Practical Skills Requirement, it may be applied to satisfaction of both the those requirements. A course listed above as a course satisfying the Practical Skills Requirement but not listed as a Group B course may not be applied to satisfaction of the Group B requirement.)
Graduation

For a student to be recognized as having graduated with an Emphasis in Business & Entrepreneurial law, the student must have achieved a grade-point average of at least 3.0 in the minimum number of Emphasis course requirements listed as Required (Group A) or Grouped Required (Group B); provided that a student may, at the student's option, omit a grade received in either Corporate Tax or Partnership Tax, while still counting the course to reach the required number of academic credit hours for the Emphasis; and that a student may also omit any grade received in any Grouped Required (Group B) course, so long as the student has grades from at least 9 credit hours of other Group B courses properly included and counted in the grade point average necessary for the Emphasis.
Child & Family Law Emphasis Area Requirements

UMKC School of Law Emphasis in Child and Family Law

The UMKC School of Law Emphasis in Child and Family Law prepares students to serve these pressing and unique legal needs. The program prepares students to serve the whole family – from infants to elders – and maintains a unique collaborative and interdisciplinary framework. The emphasis program requires that students master the basic doctrine and legal theories involved when the legal system interacts with families. In addition, however, students undertake study exposing them to the perspectives of other disciplines such as psychology and social work. Students study the unique ethical dilemmas of this area of law in specialized workshops and gain hands-on experience in representing children and families in the program’s clinical components. Finally, all students in the emphasis complete an in-depth capstone research and writing project.

Students who qualify for and successfully complete the credential requirements in the Child and Family Law program should be in an excellent position to pursue and succeed in careers serving children, families, and elders, whether in private or government practice or in other leadership roles.

Admission Requirements

Students may apply after completing their second semester (or 29 credit hours). Students who are close to completing the hourly requirements may petition for early admission for good cause shown.

An application form will be available and must be submitted by the deadline announced by the Child and Family Law Faculty. Decisions as to whether a student will be admitted to the Emphasis in Child and Family Law will be made in the semester in which the student applies.

Procedure and Criteria for Selection:

The Child and Family Law Faculty will select the students to be admitted to the program. Criteria to be considered may include previous general academic performance in law school, previous academic performance in courses seen as particularly relevant to the emphasis area, level of interest in serving children or families, and ability to identify an advisor willing to advise and supervise the student.

No student shall be admitted to the Child and Family Law program unless he or she has a grade-point average of 2.6 or above in all law school classes previously taken.

The Child and Family Law Faculty is authorized to make appropriate adjustments in the deadlines for part-time students or other students whose schedules do not substantially conform to the six semester paradigm.

Student Learning Outcomes

Students graduating from this program will:

- Students will demonstrate mastery of core doctrinal knowledge within emphasis area
- Students will demonstrate mastery of skills necessary for objective legal analysis.
- Students will demonstrate mastery of the skills necessary for effective legal research in the emphasis area.
- Students will demonstrate mastery of legal writing within the field.
- Students will demonstrate mastery of the duties of attorneys as members of the legal profession.
- Students will demonstrate ability to work with people in a professional environment
- Students will demonstrate competency in professional work habits
- Students will demonstrate entry-level proficiency in lawyering skills especially relevant to the emphasis area.

Important Note: Because the School is committed to keeping up with changes in the practice of law, the requirements for emphasis areas may change during the course of a student’s enrollment at the School. The requirements at the time a student is granted admission into the emphasis area are the requirements that govern completion of the student’s emphasis requirements. For possible revised requirements that will take effect with the next academic year, http://law.umkc.edu/academics/emphasis-areas/family-children.

General Requirements

Curriculum Requirements

Of the 15 hours required for the emphasis, the student must complete
• The basic family law course (three credit hours).
• The Child & Family Services Clinic
• At least two courses from a list of core curriculum (listed below)
• The remainder of the required credit hours from other core curriculum courses or a list of elective courses (listed below).

Prerequisite Course
All students in the emphasis must take Family Law. Because this foundation course is a prerequisite for most other courses in the emphasis, students accepted for the emphasis will be given a priority in enrollment in the course.

Core Courses
Students must take at least two courses from the classes listed below:

• Children in the Law
• Juvenile Offenders & The Law
• Family Violence
• Gender and Justice
• Elder Law

Clinical Component
All students in the Child and Family Law program must successfully complete the Child & Family Services Clinic.

Elective Courses
• Mediation
• Journal of the American Academy of Matrimonial Lawyers
• Dispute Resolution and Lawyers
• Elder Law For Estate Planners
• Disabilities and the Law
• Immigration Law and Process
• Education Law: Government & Legal Aspects of Education
• Independent Study (if approved by Child and Family Law advisor on the basis that the course of study relates directly to the emphasis area)
• All Journals Staff (if approved by Child and Family Law advisor on the basis that the student’s note or comment relates directly to the emphasis area)
• Fact Investigation
• Legal Aid Clinic
• Internship
• Guardian Ad Litem Workshop
• Family Law Clerkship
• Estate Planning & Drafting
• Leadership in Disability Studies: A Multidisciplinary Approach
• Miniterm courses designated as family law courses. In the past, these have included: Poverty Law, Violence Against Women Act, Law & Human Trafficking and Family Law and Film

Any other law school course if, before beginning the course, the students obtains written approval from the Child and Family Law Faculty. Such approval shall not be granted unless the Child and Family Law Faculty find that, in light of the student’s other courses and the student’s goals in the emphasis study, the course will advance the student’s study of Child and Family Law to an extent equivalent to other Child and Family Law electives.

Courses may be added or deleted from the lists contained in the sections above with approval of the Child and Family Law Faculty and the Law School faculty.

Graduation Requirements
For a student to be recognized as having graduated with an Emphasis in Child and Family Law, students must have

• timely completed all emphasis requirements
• received the approval of a member of the Child and Family Law faculty of the student’s portfolio, and
• earned a 3.0 grade point in emphasis course work (required and elective courses).
This grade-point average shall be computed considering all Required and Elective Courses in the emphasis taken by the student, including any that exceed the minimum hour requirements for the Emphasis.
Intellectual Property Emphasis Area Requirements

Emphasis in Intellectual Property Law

Student Learning Outcomes

Students graduating from this program will:

• Be able to identify legal issues in intellectual property practice and apply basic principles of intellectual property law necessary to resolve those issues. Assessed by essay tests, graded with rubrics, in required courses.

• Be able to use specialized knowledge of intellectual property doctrine to resolve emerging issues in the field. Assessed by tests or papers, graded with rubrics, in elective courses.

• Be able to research advanced topics in the field and use that research to solve a focused, complex issue in the field. Assessed by faculty critique of the research paper requirement and re-writing until paper is of faculty-agreed standard of quality.

Student will have to take a total of 16 credit hours from the below mandatory and elective courses. All courses must be taken for a grade (with the exception of those courses for which a grade option is unavailable).

Required

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 8808</td>
<td>Intellectual Property Law</td>
<td>2-3</td>
</tr>
</tbody>
</table>

At least two of the following must be taken:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 8797</td>
<td>Business Torts and Unfair Competition</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8798</td>
<td>Copyright Law</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8882</td>
<td>Patent Law</td>
<td>2-3</td>
</tr>
</tbody>
</table>

Electives (The remaining hours to be satisfied from the following)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 8853</td>
<td>Seminar in Law Science &amp; Technology</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8808L</td>
<td>Intellectual Property Licensing (or Technology Licensing (only one))</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8905</td>
<td>Intellectual Property Litigation</td>
<td>2</td>
</tr>
<tr>
<td>Advanced Trademark Seminar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LAW 8808S</td>
<td>Intellectual Property Remedies</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8882R</td>
<td>Patent Prosecution</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8798A</td>
<td>Art Law</td>
<td>2-3</td>
</tr>
</tbody>
</table>

Advising Life Science and Technology

No more than one of the following can count toward the required 16 credit hours: LAW 8910 Intellectual Property Clinic, Technology Transfer Externship, or LAW 8757N Entrepreneurship & New Venture Creation (with IP faculty advisor approval).

Other courses may be approved by the IP faculty advisor to count towards the Emphasis. Where a course includes a substantial component of IP law, part of that course may count towards the 16-hour requirement with advance approval from the IP faculty advisor.

The above requirements are in addition to any hours received in connection with completion of the Advanced Research Requirement (See below).

Advanced Research Requirement

A paper satisfying the R&W requirement or an equivalent independent study writing project (including law review notes or comments) must be undertaken by writing on an IP subject, which subject has been approved by the student's IP faculty advisor. This requirement may also be satisfied through the writing of a professional quality brief as a team member in the Giles Sutherland Rich Memorial Moot Court Competition or, with the approval of the student's IP faculty advisor, by writing of a professional quality brief in another equivalent IP competition that has a brief writing component.

Class papers do not satisfy this requirement, but may be expanded as an independent paper or the R&W paper, with approval of the IP faculty advisor, the expanded paper may satisfy this requirement. Any credits earned through satisfaction of this writing requirement will NOT be counted towards the 16 hours.
Practical Skills Component

Students must complete at least one course containing a substantial practical skills component. A course used to satisfy the practical skills requirement can also count toward the 16 hours of required coursework. The following courses satisfy this requirement:

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 8808L</td>
<td>Intellectual Property Licensing ((or Technology Licensing))</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8905</td>
<td>Intellectual Property Litigation</td>
<td>2</td>
</tr>
<tr>
<td>LAW 8882R</td>
<td>Patent Prosecution</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8910</td>
<td>Intellectual Property Clinic</td>
<td>2-3</td>
</tr>
<tr>
<td>Technology Transfer Externship</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LAW 8757N</td>
<td>Entrepreneurship &amp; New Venture Creation (with IP faculty advisor approval)</td>
<td>3</td>
</tr>
</tbody>
</table>

Alternatively and with approval of the IP faculty advisor, the requirement may be met by other internships, externships, moot courts, simulation courses, drafting courses, or other courses or activities designed to provide exposure to type of work we performed as IP lawyers in the field.

Ethics Component

Ethical considerations will be incorporated into the listed required emphasis area courses.
International, Comparative & Foreign Law (ICF) Emphasis Area Requirements

Admission Requirements
After their first year and before their final semester, or with approval in other circumstances, students may be admitted to the International, Comparative, and Foreign Law ("ICF") Emphasis if their cumulative law school GPA is 2.7 or above.

Student Learning Outcomes
Students graduating from this program will:

• Students will demonstrate mastery of core doctrinal knowledge within emphasis area
• Students will demonstrate mastery of skills necessary for objective legal analysis. This is a general student learning outcome for the JD degree and is assessed through essay examinations graded using rubrics in required courses and through performance on licensing examinations.
• Students will demonstrate mastery of the skills necessary for effective legal research in the emphasis area.
• Students will demonstrate mastery of legal writing in the emphasis area.
• Students will demonstrate ability to work with people in a professional environment
• Students will demonstrate competency in professional work habits
• Students will demonstrate entry-level proficiency in lawyering skills especially relevant to the emphasis area.

• Important Note: Because the School is committed to keeping up with changes in the practice of law, the requirements for emphasis areas may change during the course of a student’s enrollment at the School. The requirements at the time a student is granted admission into the emphasis area are the requirements that govern completion of the student’s emphasis requirements. For possible revised requirements that will take effect with the next academic year, see http://law.umkc.edu/academics/emphasis-areas/international-foreign-comparative-law/

• Program Requirements

1. Courses:
   Student will have to take a total of 16 credit hours from the below mandatory and elective courses.
   a. Required: The following two mandatory classes must be taken:
      • International Law (3 hours)
      • Global Legal Systems (3 hours)
      The above classes will include consideration of ICF professional responsibility issues.
   b. Electives:
      The remaining hours to be satisfied from the following courses (note: not all below are offered every year):
      • Conflict of Laws
      • Immigration Law & Policy or Immigration Law & Process
      • International Business Transactions
      • International Human Rights
      • International Taxation
      • International Trade & Finance
      • National Security Law
      • Transnational Litigation & Arbitration
      • Competitions in International Law (Law 8704A or 8704I, or other 8704 courses when topic is International or Comparative Law)
      • Multicultural Lawyering and Spanish for Lawyers
      • Courses offered as part of an approved overseas experience (only one approved overseas experience will count towards the emphasis)
      Other Courses may be approved by the ICF advisor to count towards the Emphasis. Where a course includes a substantial component of ICF law, part of that course may count towards the 16 hour requirement with advance approval from the ICF advisor.

2. Required Overseas Legal Experience
   This would include such experiences as:
   • The Ireland, China, Oxford or other law summer programs; or
   • An overseas Mini-Term course (if offered); or
   • Another experience approved in advance by the ICF advisor.
   These experiences may constitute a “skills” component, depending on the specifics of the experience. The credits earned from ONE approved overseas experience may be counted towards the required 16 hours for the Emphasis.

3. Required Writing Project:
   • A paper satisfying the R&W requirement or an equivalent independent study writing project (including law review notes or comments) must be undertaken by writing on an ICF subject (subject to be approved by the ICF advisor).
• This requirement may also be satisfied through participation on the Jessup International Moot Court Team or other equivalent international competition with approval of the ICF advisor.
• Class papers do not satisfy this requirement, but may be expanded as an independent paper or the R&W paper, and with approval of the ICF advisor, the expanded paper may satisfy this requirement. Any credits earned through satisfaction of this writing requirement will NOT be counted towards the 16 hours.

Graduation Requirement
To graduate with the ICF Emphasis, students must have a minimum GPA within the emphasis area of 3.0.
Urban, Land Use and Environmental Law Emphasis Area Requirements

Emphasis in Urban and Land Use Law, Environmental Law

UMKC students can engage in a course of study within the J.D. degree with an emphasis in Urban and Land Use Law, Environmental Law or both.

Admission Requirements

Students in their second or third year may elect to specialize in the "Urban, Land Use and Environmental Law" curricular emphasis program. To do so, a student must apply no later than the end of the second year. Advice about compliance with the requirements is available from the Emphasis Faculty Advisors.

Student Learning Outcomes

Students graduating from this program will:

• Students will demonstrate mastery of core doctrinal knowledge within emphasis area
• Students will demonstrate mastery of skills necessary for objective legal analysis.
• Students will demonstrate mastery of the skills necessary for effective legal research in the emphasis area.
• Students will demonstrate mastery of legal writing.
• Students will demonstrate mastery of the duties of attorneys as members of the legal profession.
• Students will demonstrate ability to work with people in a professional environment
• Students will demonstrate competency in professional work habits
• Students will demonstrate entry-level proficiency in lawyering skills especially relevant to the emphasis area.

Important Note: Because the School is committed to keeping up with changes in the practice of law, the requirements for emphasis areas may change during the course of a student’s enrollment at the School. The requirements at the time a student is granted admission into the emphasis area are the requirements that govern completion of the student’s emphasis requirements. For possible revised requirements that will take effect with the next academic year, see http://law.umkc.edu/Academics/Emphasis-areas/Urban-Land-use-Environment/

General Requirements

Minimum Total Hours Required

Students must complete seven of the listed courses: students must complete all courses in Group A, three courses from Group B and one course from Group C. All courses must be taken for a grade (with the exception of those courses for which a grade option is not available). Course work satisfying this requirement must total at least 15 hours.

Writing Requirement

Students must complete an academic research paper of high professional quality concerning a topic within the field of the emphasis area. They may fulfill this requirement in conjunction with any of the listed courses, or as part of the Research and Writing requirement, as part of an Independent Study option, through one of the Law School’s journal offerings, or through a research project pursued at the Center for the City at UMKC. Unless written to meet the R&W requirement, the paper must be written for a grade. Advance approval of the topic and faculty advisor is required by one of the land-use and environment faculty.

Practical Skills Component

Students must participate for at least one semester in a practical skills component. The following opportunities satisfy this requirement: the EPA Law Clinic, Region VII; the EPA Law Clinic, Agricultural Center; or a service placement with the Center for the City at UMKC. Participation in the EPA Law Clinics can simultaneously be used to satisfy the minimum hours requirement.

Ethics Component

Ethical considerations will be incorporated into the listed emphasis area courses.
Research Component
All students in the program must complete an advanced research offering which will provide advanced skills in research in the urban, land use and environmental law field. This may entail a separate course of study, a component of an existing course, or separate lecture, seminar or workshop offerings as designated by the Program Faculty Advisors.

Curriculum Requirements

Group A: Core Courses (must take all)
- Administrative Law
- Environmental Law
- Land Use Planning

Group B: Specialized Courses (must take three)
- Air & Water Regulation
- Cities and the Environment "J"
- Current Issues in Property Law Seminar
- Environmental Law Seminar
- International Environmental Law
- Law and the American Indian
- Natural Resources Law
- Preservation Law
- Seminar in Urbanization
- State & Local Government Law
- Toxic Torts
- Urban Lawyer Board
- U.S. Environmental Protection Agency Law Clinic: Region VII Headquarters
- U.S. Environmental Protection Agency Law Clinic: National Agricultural Compliance Assistance Center
- Water Law

Group C: Related Law Courses and Interdisciplinary Courses (must take one)
- Alternative Dispute Resolution (2)
- Complex Litigation (3)
- Economics and the Law (2) "J"
- Federal Jurisdiction (3)
- Legislation (3)
- Real Estate Finance (3-4)
- Real Estate Transactions (2)
- State and Local Government Tax (2-3)
- Biogeography and Landscape Ecology (3) (Department of Geosciences)
- Managing Urban Economic Development (3) (Bloch School)
- Urban and Regional Planning for Urban Administrators (3) (Bloch School)
- Urban Planning Theory and Practice (3) (Department of Architecture)
- Urban Planning and Design (This course would have additional assignments for law students)

Graduation Requirements
To be recognized as having graduated with an emphasis in Urban, Land Use and Environmental Law, students must complete all requirements with an average grade of B or better (and no grade below a C). Students who have met the program requirements by the time of graduation will have this distinction noted at that time.
LL.M./M.P.A. Combined Degree Program

A combined LL.M./M.P.A. degree program between the School of Law and the Henry W. Bloch School of Business and Public Administration can be arranged with the approval of the Law School graduate studies committee.
Master of Law Degree

Eligibility for the LL.M. Program

The School of Law offers three graduate study programs in law leading to the master of laws degree: the LL.M. (Taxation); the LL.M. (Urban Affairs); and the LL.M. in Lawyering. The LL.M in Lawyering permits students to emphasize their study in one of eight emphasis areas or in an areas of the student’s choice based on the curriculum, subject to approval by the student’s academic advisor and to availability of courses. Admission to the LL.M programs in taxation and urban affairs is limited to applicants who have attained the juris doctor or equivalent degree from an approved law school and who have a law school GPA of at least 2.7 on a 4.0 scale.

Admission to the LL.M. in Lawyering requires a degree in law which may be a bachelor’s degree, an LL.B., a juris doctor or some other law degree from an accredited or similarly recognized institution. The LL.M. in Lawyering does not have a minimum GPA requirement, but academic performance is a significant consideration in the admissions decision. If the law degree was obtained at an institution where the language of instruction is not English, the applicant must also demonstrate English competency through either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) examinations and in an admissions interview. Successful applicants typically have a minimum TOEFL score of 550 on the paper exam or 80 on the Internet version, or a minimum IELTS score of 5.5, but not all students with scores that meet the minimum requirements will be admitted. In some cases, the School of Law will require additional English student at UMKC prior to the start of the LL.M. program as a condition of admission.

Admissions Process

An LL.M. admission application, application fee and official law school (if applicable) and undergraduate transcripts must be submitted for admission. In addition, the LL.M. in Lawyering requires a personal statement and one letter of recommendation. International students whose first language is not English or whose law instruction was not in English also must provide an office TOEFL or IELTS score, literal English translations of academic credentials that are not in English, a copy of the biographical information page from the applicant’s passport, and an original or certified copy of a financial statement proving financial ability to pay the first year of educational and living expenses. If a letter of support is provided for the financial proof, the letter must be notarized and must explain the relationship between the sponsor and the applicant. Documents that are not in English must be accompanied by an English translation. International students also must have an interview with the Director or Associate Director of the LL.M. in Lawyering as part of the application process.

There is no formal application deadline for the LL.M. programs in taxation and urban affairs, but early submission of applications is recommended.

The application deadline for the LL.M. in Lawyering is March 1 to allow time for international students to obtain their visas, but applications are accepted after the deadline subject to availability in the entering class.

Academic Rules and Regulations (p. 1393)

Scholarships (p. 1394)

Master of Law Degree Requirements

1. Completion of 24 credit hours. For taxation and urban affairs, 18 of the 24 credit hours must be taken from the list of required and elective courses provided for each program. For the LL.M. in Lawyering, the student must take four required courses (unless an equivalent course was taken in an accredited U.S. J.D. program), and elective courses as required for the specific emphasis area or as approved by the academic advisor.
2. A cumulative GPA of at least 3.0 is required for the LL.M. (Urban Affairs), at least 2.7 for the LL.M. (Taxation), and 2.0 for the LL.M. in Lawyering.
3. Completion of all required courses. See the “Required Courses” for each program.
4. Enrollment in a minimum of 2-4 credit hours each semester.
5. Successful completion of all coursework (including thesis, if applicable) within three years from the beginning of the course of studies leading toward the degree.

Upon enrollment in the graduate program, a student is assigned a faculty advisor. In consultation with the advisor, the student develops a plan of study that meets the requirements for the degree in the program area selected. The advisor must approve enrollment in all courses. Post-J.D. study may be undertaken on a non-LL.M. basis. Applicants who wish to obtain an LL.M. degree but who do not have the required grade-point average may be permitted to enroll as a non-degree candidate. They may be considered for later admission to the degree program on the basis of performance in courses taken as a non-degree candidate. Additional information on the specific programs, can be found at the law school’s website. (http://law.umkc.edu/prospective-students/llm-program)
LL.M. Academic Rules and Regulations

Appeal of Grades,

The rules and regulations for the LL.M. programs in regard to appeal of grades is the same as specified for the Juris Doctor degree program.

Scholastic Probation and Dismissal

A student will be placed on scholastic probation whenever the student’s GPA falls below 3.0 for the LL.M. (Urban Affairs), 2.7 for the LL.M. (Taxation) or when a student fails to earn at least a grade of Credit in one course for the LL.M. in Lawyering. For the LL.M. programs in taxation and urban affairs, a student on probation must attain the required cumulative GPA by the end of the next semester of coursework, or, unless an exception is made by the Graduate Studies Committee, the student will be dismissed from the program for academic deficiency. For the LL.M. in Lawyering, a student who fails to obtain a grade of at least Credit in a second course will be dismissed from the program for academic deficiency.

Attendance, Examinations and Grades, and Withdrawal from Courses

The rules and regulations for the LLM programs in regard to attendance; examinations and grades; and withdrawal from courses are the same as specified for the Juris Doctor degree programs, unless modified by the student’s LLM advisor with the consent of the graduate studies committee.
LL.M. Scholarships

Scholarship information is available at the law school's website (http://law.umkc.edu/prospective-students/financial-aid/scholarships) at http://law.umkc.edu/prospective-students/financial-aid/scholarships/.
Curriculum, Master of Law (General)

Student Learning Outcomes

Students graduating from this program will:

• 1. Lawyering Skills. All LL.M. in Lawyering students will acquire or improve the following legal skills: the ability to read and analyze legal texts, including cases; the ability to conduct legal research on U.S. law sources; the ability to spot legal issues raised by typical legal problems; the ability to apply the law to factual scenarios; the ability to analyze legal issues and predict likely judicial outcomes; the ability to communicate legal analysis clearly in writing and orally; the ability to interview witnesses and clients; the ability to counsel clients with legal analysis and legal options; the ability negotiate a legal issue or problem with an adversary; the ability to make persuasive arguments based on the combination of law and facts.

• 2. Legal English. For those students who were trained in law outside of the U.S. or another English-speaking, common law country, they will develop a working knowledge of key legal English terms used in law practice in the United States.

• 3. Knowledge of U.S. Law. Students in the LL.M. in Lawyering program will learn or deepen their understanding of U.S. law generally and in particular sub-areas of U.S. law in one of the emphasis areas or such other area or combination of areas selected by the student with the approval of the academic advisor.

Required Coursework

Law 8730I  Introduction to American Law & Culture

Law 8531I  Common Law, Legal Writing and Analysis

Law 8532I  Introduction to American Legal Skills

Law 8532R  American Legal Research

Emphasis Areas

For an emphasis, a student must earn at least 12 credit hours towards the LL.M. in Lawyering in courses that will support the emphasis area. Students also must complete a significant writing project, academic or professional, which may be undertaken in connection with a course, as an independent study, or in connection with a thesis.

The following emphasis areas are available: Business and Entrepreneurial Law (p. 1402), Child and Family Law (p. 1403), Criminal Law (p. 1404), Intellectual Property Law (p. 1405), International Law (p. 1406), Litigation (p. 1407), Tax Law (p. 1408), and U.S. Law (p. 1409). Some courses have been pre-approved as supporting these emphasis areas, and others may be approved by the student’s academic advisor. Students are not required to select an emphasis area, but may choose a different course of study with approval of the academic advisor. Course schedules change on an annual basis, so all courses listed below may not be available in a particular year. The LL.M. student’s academic advisor may approve additional courses not listed as counting towards an emphasis area. One course, Global Legal Systems, is listed for each emphasis area because students write papers to compare US law to the law of other countries, and that course can count towards an emphasis area if the paper topic supports the emphasis and is approved by the academic advisor.

Grading

The grading scale for students in the LL.M. in Lawyering is as follows:

• A (including + and -)
• B (including + and -)
• C (including + and -)
• Credit
• No Credit

The A, B, C grades are given consistent with standards for J.D. students, and credits for courses taken from the J.D. curriculum may count towards a J.D. degree in the event of transfer to that program if the LL.M. student earns a grade of C or better. A “Credit” grade signifies that the student has not performed to the level required of a juris doctor student, but that the student has demonstrated basic competency on course objectives as those objectives relate to the LL.M. in Lawyering. Courses in which a student earns a grade of "Credit" count towards the LL.M. in Lawyering, but will not count towards a J.D. degree. A “No Credit” indicates that the student did not demonstrate basic competency on course objectives, and that course does not count towards fulfilling the graduation requirements for the LL.M. in Lawyering degree.

Accommodation of English as a Second Language students.

Students who speak English as a second language may be given additional time on timed final exams in courses offered in the J.D. program. Students may be given up to 50% additional time depending on the English ability and the length and nature of English immersion experienced by the student,
but may not be given any additional time depending on the circumstances to be evaluated by the Manager of Student Services in consultation with the Associate Dean of International Programs.

As an additional accommodation of ESL students, a professor in his or her discretion may allow additional work beyond that assigned generally in the course to allow a student in the LL.M. in Lawyering to achieve a "Credit" grade. The professor is to indicate at the beginning of the course whether he or she will allow additional work, and what conditions or standards may apply. The nature, quality and length of any additional work is to be decided upon by the faculty member who is the instructor in the course. Examples of additional work include a paper, re-taking of an exam, an oral examination, field observations and reports.

**Thesis**

The LL.M. in Lawyering does not require the completion of a thesis, but students may choose to undertake a thesis on a subject matter to be approved by the student's academic advisor. The thesis must show substantial evidence of original research and should be at least 20 pages in length for each credit hour of thesis credit in which the student enrolls. Students may take thesis credit for up to a maximum of eight credit hours with approval of the academic advisor.
Curriculum, Master of Law (Taxation)

Student Learning Outcomes

Students graduating from this program will:

• 1. KNOWLEDGE: Graduates be able to demonstrate in-depth knowledge of tax law; the policies underlying systems of taxation and procedures relating to the administration of tax laws and the resolution of disputes with taxing authorities; and the context of tax rules, so that analysis of uncertain areas of the law can be aided by an appreciation of underlying theory and policy

• 2. SKILLS: Graduates will be able to research and analyze tax issues. Students will be able to read carefully and comprehend intricate statutes and regulations, exercising the patience and diligence needed to work with detailed definitions, cross-references and exceptions to general rules. Students will have mastered issue-spotting and problem-solving skills through detailed analysis of tax problems. Students will have demonstrated an ability to communicate tax advice to in clear terms understandable to clients and non-tax professionals.

• ETHICS: Students will demonstrate sensitivity to ethical obligations associated with giving tax advice, and will demonstrate knowledge of the statutory, regulatory and common law anti-abuse rules.

Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 8834</td>
<td>Tax Procedure</td>
<td>2</td>
</tr>
<tr>
<td>or LAW 8834R</td>
<td>Tax Clinic</td>
<td></td>
</tr>
<tr>
<td>LAW 8838R</td>
<td>Tax Practicum I</td>
<td>2</td>
</tr>
<tr>
<td>or LAW 8746R</td>
<td>Independent Study</td>
<td></td>
</tr>
<tr>
<td>LAW 8886</td>
<td>Corporate Taxation I</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8888R</td>
<td>Partnership Taxation I</td>
<td>3</td>
</tr>
<tr>
<td>LAW 8893R</td>
<td>Taxation Of Property Transactions</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8889R</td>
<td>Subchapter S Taxation</td>
<td>1</td>
</tr>
<tr>
<td>Total Credits</td>
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<td>12-14</td>
</tr>
</tbody>
</table>

Elective Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 8614R</td>
<td>Estate Planning For Retirement Plan Benefits</td>
<td>1</td>
</tr>
<tr>
<td>LAW 8615R</td>
<td>Estate Planning For Charitable Giving</td>
<td>1</td>
</tr>
<tr>
<td>LAW 8617R</td>
<td>Elder Law For Estate Planners</td>
<td>1</td>
</tr>
<tr>
<td>LAW 8746R</td>
<td>Independent Study</td>
<td>0.5-3</td>
</tr>
<tr>
<td>LAW 8838L</td>
<td>Legal Accounting</td>
<td>1</td>
</tr>
<tr>
<td>LAW 8838R</td>
<td>Tax Practicum I</td>
<td>1-3</td>
</tr>
<tr>
<td>LAW 8838L</td>
<td>Legal Accounting</td>
<td>1</td>
</tr>
<tr>
<td>LAW 8838R</td>
<td>Tax Practicum I</td>
<td>1-3</td>
</tr>
<tr>
<td>LAW 8843</td>
<td>Federal Income Taxation Of Estates And Trusts</td>
<td>2</td>
</tr>
<tr>
<td>LAW 8845</td>
<td>Deferred Compensation</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8848R</td>
<td>State And Local Taxation</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8874</td>
<td>Tax-Exempt Organizations</td>
<td>2</td>
</tr>
<tr>
<td>LAW 8888A</td>
<td>Partnership Taxation II</td>
<td>1-3</td>
</tr>
<tr>
<td>LAW 8892R</td>
<td>Taxation Of Estates, Gifts And Trusts</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8908</td>
<td>Family Tax Law</td>
<td>1</td>
</tr>
</tbody>
</table>

In addition to those approved electives, the Director of the Graduate Tax Program may approve a post-J.D. Tax, LL.M. student taking up to 6 credit hours of other elective courses offered at the UMKC School of Law or other UMKC graduate or professional schools, without the necessity of obtaining Graduate Studies Committee approval, if, in the Director’s judgment, such courses are graduate level courses suitable to prepare the student for a tax-sensitive practice area (e.g., business planning, estate planning or real estate development). The following courses are currently pre-approved for purposes of that option (but students may petition the Director of the Graduate Tax Program for approval of other courses if the Director finds such courses appropriate under the standard set forth in the previous sentence).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>LAW 8757</td>
<td>Business Planning</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8601R</td>
<td>Doing Business In Ireland, Part I</td>
<td>1</td>
</tr>
</tbody>
</table>
LAW 8757R  Entrepreneurial Law & Practice Clinic  2-3
LAW 8638R  Entrepreneurial Lawyering: Solo And Small Firm Practice  3
LAW 8771  Public Finance  2-3
LAW 8754  International Business Transactions  2-3
LAW 8757N  Entrepreneurship & New Venture Creation  3
LAW 8614  Estate Planning and Drafting  1-4
LAW 8875L  Legal Context of Real Estate Decision Making  1-3
LAW 8837  Negotiating Mergers And Acquisitions  2-3
LAW 8861  Real Estate Finance  2-4
LAW 8875  Real Estate Transactions  2-3
LAW 8757L  Special Topics In Entrepreneurial Lawyering  2
LAW 8832  Law Of International Trade And Finance  3
LAW 8915  Social Venture Creation  1
LAW 8757V  Social Entrepreneurship Ventures  1

Special Rules for Application of Courses Taken at Other Law Schools Toward Tax, LL.M. Degree

The Director of the Graduate Tax Law Program may allow Tax, LL.M. candidates to count towards degree requirements up to 6 credit hours of tax courses taken as J.D. or LL.M. students at other law schools so long as (i) they are, in the judgment of both the Director and the applicable instructor here, of comparable coverage and quality to the corresponding required or elective tax courses eligible or required for LL.M credit at UMKC and (ii) the student earned a grade of “B” or higher in such course(s). A student seeking to have one or more courses taken at another law school counted toward the UMKC Tax, LL.M. degree requirements under this provision must petition the Director of the Graduate Tax Program for such treatment and provide the Director with the necessary information to determine if such treatment is in order (this would normally involve reviewing the student’s transcript and the syllabus and assignments list for the subject course(s) taken elsewhere).

Combined J.D./LL.M. (Taxation) Degree Program

Qualified UMKC J.D. students will be permitted to apply up to 10 credit hours (12 with the permission of the Graduate Studies Committee) of UMKC graduate courses approved for this purpose toward an LL.M. (Taxation) degree as well as toward a J.D. degree. This will allow students to earn the Tax, LL.M. on an accelerated basis.

This “combined” J.D./Tax, LL.M program is available to qualified students who begin their legal studies at the UMKC School of Law, and to students who transfer to the UMKC School of Law or who attend it as visiting/certification students during their fifth or sixth semester of law study. With respect to students who take some courses at a different law school and some at UMKC School of Law (as a transfer or visiting/certification student) in no event will more than a total of 12 credit hours toward the Tax, LL.M be awarded for courses approved under “Special Rules for Application of Courses Taken at Other Law Schools Toward Tax, LL.M Degree” above and the Combined J.D./Tax, LL.M program. For further information on admissions and combined degree requirements, contact the Director of the Graduate Tax Law Program.
Curriculum, Master of Law (Urban Affairs)

Student Learning Outcomes

Graduates will be able to demonstrate expert knowledge of the basic history, doctrines, and procedures of the law relevant to state and local government law, land use, and urban planning law. Within these general parameters, students will have developed and completed an individualized plan of ongoing learning that meets their professional goals. Students will have a written plan of study with a professional goal statement, concrete learning outcomes, and a timeline for completion.

Courses Available

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 8732</td>
<td>Lawyers and Dispute Resolution</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8898</td>
<td>Construction Law</td>
<td>2</td>
</tr>
<tr>
<td>LAW 8773</td>
<td>Environmental Law</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8766</td>
<td>Land Use Law</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8728</td>
<td>Law And The American Indian</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8641R</td>
<td>Legislation</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8783</td>
<td>Preservation of Land &amp; Natural Resources</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8729</td>
<td>Preservation Law</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8861</td>
<td>Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td>LAW 8875</td>
<td>Real Estate Transactions</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8770</td>
<td>State And Local Government Law</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8725</td>
<td>Water Law</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8773C</td>
<td>Environmental Compliance Auditing and Permitting</td>
<td>3</td>
</tr>
<tr>
<td>LAW 8725E</td>
<td>Energy Law</td>
<td>3</td>
</tr>
<tr>
<td>LAW 8729C</td>
<td>Cultural Preservation Law</td>
<td>3</td>
</tr>
<tr>
<td>LAW 8783P</td>
<td>Preservation of Land &amp; Natural Resources</td>
<td>2-3</td>
</tr>
</tbody>
</table>

Thesis

LL.M. – Urban Law students are required to complete a publishable quality thesis in the field of Urban Law, on subjects approved by the students’ thesis committee, as outlined in their plan of study. The thesis must show substantial evidence of original research or development of the principles of at least one interdisciplinary field related to the area of urban studies pursued; be at least 75 pages in length; and be of high scholastic quality, suitable for publication as a lead article in a scholarly journal; and must demonstrate advanced knowledge and expertise in a field of law related to Urban law. A minimum of four and a maximum of eight credit hours (to be determined by the student in consultation with the thesis advisor) may be given for the written thesis.

The thesis committee, consisting of the thesis advisor (selected by the student with the advisor’s consent) and the School of Law graduate studies committee must approve the topic and the final form and substance of the thesis.

Other Courses

The School of Law graduate studies committee may approve other law school courses and up to six credit hours of courses in other schools and departments of the University related to the area of urban affairs pursued. Generally, students may not take required or basic bar examination J.D. courses for graduate credit.

Before enrollment, the student will work with the associate dean toward developing an individualized urban affairs course of studies.
Master of Law in Lawyering

Student Learning Outcomes

Students graduating from this program will:

• 1. Lawyering Skills. All LL.M. in Lawyering students will acquire or improve the following legal skills: the ability to read and analyze legal texts, including cases; the ability to conduct legal research on U.S. law sources; the ability to spot legal issues raised by typical legal problems; the ability to apply the law to factual scenarios; the ability to analyze legal issues and predict likely judicial outcomes; the ability to communicate legal analysis clearly in writing and orally; the ability to interview witnesses and clients; the ability to counsel clients with legal analysis and legal options; the ability negotiate a legal issue or problem with an adversary; the ability to make persuasive arguments based on the combination of law and facts.

• 2. Legal English. For those students who were trained in law outside of the U.S. or another English-speaking, common law country, they will develop a working knowledge of key legal English terms used in law practice in the United States.

• 3. Knowledge of U.S. Law. Students in the LL.M. in Lawyering program will learn or deepen their understanding of U.S. law generally and in particular sub-areas of U.S. law in one of the emphasis areas or such other area or combination of areas selected by the student with the approval of the academic advisor.

Required Coursework

Law 8730I  Introduction to American Law & Culture

Law 8531I  Common Law, Legal Writing and Analysis

Law 8532I  Introduction to American Legal Skills

Law 8532R  American Legal Research

Emphasis Areas

For an emphasis, a student must earn at least 12 credit hours towards the LL.M. in Lawyering in courses that will support the emphasis area. Students also must complete a significant writing project, academic or professional, which may be undertaken in connection with a course, as an independent study, or in connection with a thesis.

The following emphasis areas are available: Business and Entrepreneurial Law (p. 1402), Child and Family Law (p. 1403), Criminal Law (p. 1404), Intellectual Property Law (p. 1405), International Law (p. 1406), Litigation (p. 1407), Tax Law (p. 1408), and U.S. Law (p. 1409). Some courses have been pre-approved as supporting these emphasis areas, and others may be approved by the student’s academic advisor. Students are not required to select an emphasis area, but may choose a different course of study with approval of the academic advisor. Course schedules change on an annual basis, so all courses listed below may not be available in a particular year. The LL.M. student’s academic advisor may approve additional courses not listed as counting towards an emphasis area. One course, Global Legal Systems, is listed for each emphasis area because students write papers to compare US law to the law of other countries, and that course can count towards an emphasis area if the paper topic supports the emphasis and is approved by the academic advisor.

Grading

The grading scale for students in the LL.M. in Lawyering is as follows:

• A (including + and -)
• B (including + and -)
• C (including + and -)
• Credit
• No Credit

The A, B, C grades are given consistent with standards for J.D. students, and credits for courses taken from the J.D. curriculum may count towards a J.D. degree in the event of transfer to that program if the LL.M. student earns a grade of C or better. A "Credit" grade signifies that the student has not performed to the level required of a juris doctor student, but that the student has demonstrated basic competency on course objectives as those objectives relate to the LL.M. in Lawyering. Courses in which a student earns a grade of “Credit” count towards the LL.M. in Lawyering, but will not count towards a J.D. degree. A “No Credit” indicates that the student did not demonstrate basic competency on course objectives, and that course does not count towards fulfilling the graduation requirements for the LL.M. in Lawyering degree.

Accommodation of English as a Second Language students.

Students who speak English as a second language may be given additional time on timed final exams in courses offered in the J.D. program. Students may be given up to 50% additional time depending on the English ability and the length and nature of English immersion experienced by the student,
but may not be given any additional time depending on the circumstances to be evaluated by the Manager of Student Services in consultation with the Associate Dean of International Programs.

As an additional accommodation of ESL students, a professor in his or her discretion may allow additional work beyond that assigned generally in the course to allow a student in the LL.M. in Lawyering to achieve a "Credit" grade. The professor is to indicate at the beginning of the course whether he or she will allow additional work, and what conditions or standards may apply. The nature, quality and length of any additional work is to be decided upon by the faculty member who is the instructor in the course. Examples of additional work include a paper, re-taking of an exam, an oral examination, field observations and reports.

**Thesis**

The LL.M. in Lawyering does not require the completion of a thesis, but students may choose to undertake a thesis on a subject matter to be approved by the student’s academic advisor. The thesis must show substantial evidence of original research and should be at least 20 pages in length for each credit hour of thesis credit in which the student enrolls. Students may take thesis credit for up to a maximum of eight credit hours with approval of the academic advisor.
Master of Law in Lawyering - Emphasis in Business and Entrepreneurial Law

Student Learning Outcomes

Students graduating from this program will:

• Lawyering Skills. All LL.M. in Lawyering students will acquire or improve the following legal skills: the ability to read and analyze legal texts, including cases; the ability to conduct legal research on U.S. law sources; the ability to spot legal issues raised by typical legal problems; the ability to apply the law to factual scenarios; the ability to analyze legal issues and predict likely judicial outcomes; the ability to communicate legal analysis clearly in writing and orally; the ability to interview witnesses and clients; the ability to counsel clients with legal analysis and legal options; the ability to negotiate a legal issue or problem with an adversary; the ability to make persuasive arguments based on the combination of law and facts.

• Legal English. For those students who were trained in law outside of the U.S. or another English-speaking, common law country, they will develop a working knowledge of key legal English terms used in law practice in the United States.

• Knowledge of U.S. Law. Students in the LL.M. in Lawyering program will learn or deepen their understanding of U.S. law generally and in particular sub-areas of U.S. law in one of the emphasis areas or such other area or combination of areas selected by the student with the approval of the academic advisor.

Below is a partial list of courses that would support the emphasis area identified. Course schedules change on an annual basis, so all courses listed below may not be available in a particular year. The LL.M. student’s academic advisor may approve additional courses not listed as counting towards an emphasis area. One course, Global Legal Systems, is listed for each emphasis area because students write papers to compare US law to the law of other countries, and that course can count towards an emphasis area if the paper topic supports the emphasis and is approved by the academic advisor.

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<tr>
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<th>Title</th>
<th>Credits</th>
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<tr>
<td>LAW 8643F</td>
<td>Advanced Legal Research: Foreign, Comparative and International Law</td>
<td>1</td>
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<tr>
<td>LAW 8707B</td>
<td>Advanced Legal Writing: Business Contract Drafting</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8605</td>
<td>Antitrust And Fair Competition Law</td>
<td>2-3</td>
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<tr>
<td>LAW 8797</td>
<td>Business Torts and Unfair Competition</td>
<td>2-3</td>
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<tr>
<td>LAW 8501</td>
<td>Contracts I</td>
<td>3</td>
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<tr>
<td>LAW 8502</td>
<td>Contracts II</td>
<td>3</td>
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<tr>
<td>LAW 8721</td>
<td>Commercial Transactions</td>
<td>3</td>
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<tr>
<td>LAW 8725E</td>
<td>Energy Law</td>
<td>3</td>
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<tr>
<td>LAW 8757R</td>
<td>Entrepreneurial Law &amp; Practice Clinic</td>
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<tr>
<td>LAW 8754</td>
<td>International Business Transactions</td>
<td>2-3</td>
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<tr>
<td>LAW 8918</td>
<td>International Commercial Arbitration</td>
<td>1</td>
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<tr>
<td>LAW 8837</td>
<td>Negotiating Mergers And Acquisitions</td>
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<tr>
<td>LAW 8758S</td>
<td>Securities Regulation</td>
<td>2-3</td>
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<td>LAW 8720</td>
<td>Secured Transactions</td>
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<tr>
<td>LAW 8601L</td>
<td>Transactional Lawyering Skills Lab</td>
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<td>LAW 8743</td>
<td>Global Legal Systems (with appropriate topic for paper)</td>
<td>1-3</td>
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Master of Law in Lawyering - Emphasis in Child and Family Law

Student Learning Outcomes

Students graduating from this program will:

- **Lawyering Skills.** All LL.M. in Lawyering students will acquire or improve the following legal skills: the ability to read and analyze legal texts, including cases; the ability to conduct legal research on U.S. law sources; the ability to spot legal issues raised by typical legal problems; the ability to apply the law to factual scenarios; the ability to analyze legal issues and predict likely judicial outcomes; the ability to communicate legal analysis clearly in writing and orally; the ability to interview witnesses and clients; the ability to counsel clients with legal analysis and legal options; the ability to negotiate a legal issue or problem with an adversary; the ability to make persuasive arguments based on the combination of law and facts.

- **Legal English.** For those students who were trained in law outside of the U.S. or another English-speaking, common law country, they will develop a working knowledge of key legal English terms used in law practice in the United States.

- **Knowledge of U.S. Law.** Students in the LL.M. in Lawyering program will learn or deepen their understanding of U.S. law generally and in particular sub-areas of U.S. law in one of the emphasis areas or such other area or combination of areas selected by the student with the approval of the academic advisor.

Below is a partial list of courses that would support the emphasis areas identified. Course schedules change on an annual basis, so all courses listed below may not be available in a particular year. The LL.M. student’s academic advisor may approve additional courses not listed as counting towards an emphasis area. One course, Global Legal Systems, is listed for each emphasis area because students write papers to compare US law to the law of other countries, and that course can count towards an emphasis area if the paper topic supports the emphasis and is approved by the academic advisor.

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<th>Code</th>
<th>Title</th>
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<tr>
<td>LAW 8752S</td>
<td>Child &amp; Family Services Clinic</td>
<td>2-3</td>
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<tr>
<td>LAW 8733</td>
<td>Children In The Law</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8733E</td>
<td>Elder Law</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8609</td>
<td>Ethical Issues In Family Law Representation</td>
<td>1-2</td>
</tr>
<tr>
<td>LAW 8751</td>
<td>Family Law</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8908</td>
<td>Family Tax Law</td>
<td>1</td>
</tr>
<tr>
<td>LAW 8662F</td>
<td>Family Court Internship</td>
<td>1-3</td>
</tr>
<tr>
<td>LAW 8752G</td>
<td>Guardian Ad Litem Workshop</td>
<td>1-2</td>
</tr>
<tr>
<td>LAW 8733R</td>
<td>Juvenile Offenders &amp; The Law</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8751S</td>
<td>Family Violence</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8738V</td>
<td>Immigration Law &amp; The Violence Against Women Act</td>
<td>1</td>
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<tr>
<td>LAW 8743</td>
<td>Global Legal Systems (with appropriate topic for paper)</td>
<td>1-3</td>
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</tbody>
</table>
Master of Law in Lawyering - Emphasis in Criminal Law

Student Learning Outcomes

Students graduating from this program will:

- **Lawyering Skills.** All LL.M. in Lawyering students will acquire or improve the following legal skills: the ability to read and analyze legal texts, including cases; the ability to conduct legal research on U.S. law sources; the ability to spot legal issues raised by typical legal problems; the ability to apply the law to factual scenarios; the ability to analyze legal issues and predict likely judicial outcomes; the ability to communicate legal analysis clearly in writing and orally; the ability to interview witnesses and clients; the ability to counsel clients with legal analysis and legal options; the ability negotiate a legal issue or problem with an adversary; the ability to make persuasive arguments based on the combination of law and facts.

- **Legal English.** For those students who were trained in law outside of the U.S. or another English-speaking, common law country, they will develop a working knowledge of key legal English terms used in law practice in the United States.

- **Knowledge of U.S. Law.** Students in the LL.M. in Lawyering program will learn or deepen their understanding of U.S. law generally and in particular sub-areas of U.S. law in one of the emphasis areas or such other area or combination of areas selected by the student with the approval of the academic advisor.

Below is a partial list of courses that would support the emphasis areas identified. Course schedules change on an annual basis, so all courses listed below may not be available in a particular year. The LL.M. student’s academic advisor may approve additional courses not listed as counting towards an emphasis area. One course, Global Legal Systems, is listed for each emphasis area because students write papers to compare US law to the law of other countries, and that course can count towards an emphasis area if the paper topic supports the emphasis and is approved by the academic advisor.

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<th>Code</th>
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<tr>
<td>LAW 8634</td>
<td>Criminal Law</td>
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<tr>
<td>LAW 8635</td>
<td>Criminal Procedure I</td>
<td>3</td>
</tr>
<tr>
<td>LAW 8636</td>
<td>Criminal Procedure II</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8820</td>
<td>Criminal Trial Techniques</td>
<td>2</td>
</tr>
<tr>
<td>LAW 8822</td>
<td>Post Conviction Remedies</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8635S</td>
<td>Wrongful Convictions</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8635T</td>
<td>Wrongful Convictions II</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8713P</td>
<td>Wrongful Convictions Clinic</td>
<td>1-6</td>
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<tr>
<td>LAW 8634I</td>
<td>International Criminal Law</td>
<td>1-2</td>
</tr>
<tr>
<td>LAW 8831R</td>
<td>International Human Rights Law</td>
<td>1-3</td>
</tr>
<tr>
<td>LAW 8743</td>
<td>Global Legal Systems (with appropriate topic for paper)</td>
<td>1-3</td>
</tr>
</tbody>
</table>
Master of Law in Lawyering - Emphasis in Intellectual Property Law

Student Learning Outcomes

Students graduating from this program will:

- Lawyering Skills. All LL.M. in Lawyering students will acquire or improve the following legal skills: the ability to read and analyze legal texts, including cases; the ability to conduct legal research on U.S. law sources; the ability to spot legal issues raised by typical legal problems; the ability to apply the law to factual scenarios; the ability to analyze legal issues and predict likely judicial outcomes; the ability to communicate legal analysis clearly in writing and orally; the ability to interview witnesses and clients; the ability to counsel clients with legal analysis and legal options; the ability negotiate a legal issue or problem with an adversary; the ability to make persuasive arguments based on the combination of law and facts.

- Legal English. For those students who were trained in law outside of the U.S. or another English-speaking, common law country, they will develop a working knowledge of key legal English terms used in law practice in the United States.

- Knowledge of U.S. Law. Students in the LL.M. in Lawyering program will learn or deepen their understanding of U.S. law generally and in particular sub-areas of U.S. law in one of the emphasis areas or such other area or combination of areas selected by the student with the approval of the academic advisor.

Below is a partial list of courses that would support the emphasis areas identified. Course schedules change on an annual basis, so all courses listed below may not be available in a particular year. The LL.M. student’s academic advisor may approve additional courses not listed as counting towards an emphasis area. One course, Global Legal Systems, is listed for each emphasis area because students write papers to compare US law to the law of other countries, and that course can count towards an emphasis area if the paper topic supports the emphasis and is approved by the academic advisor.

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<tr>
<td>LAW 8797</td>
<td>Business Torts and Unfair Competition</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8798</td>
<td>Copyright Law</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8716</td>
<td>Cyberlaw and Information Policy</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8808</td>
<td>Intellectual Property Law</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8910</td>
<td>Intellectual Property Clinic</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8905</td>
<td>Intellectual Property Litigation</td>
<td>2</td>
</tr>
<tr>
<td>LAW 8808S</td>
<td>Intellectual Property Remedies</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8808L</td>
<td>Intellectual Property Licensing</td>
<td>2-3</td>
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<tr>
<td>LAW 8882</td>
<td>Patent Law</td>
<td>2-3</td>
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<tr>
<td>LAW 8882R</td>
<td>Patent Prosecution</td>
<td>2-3</td>
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<tr>
<td>LAW 8743</td>
<td>Global Legal Systems (with appropriate topic for paper)</td>
<td>1-3</td>
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</tbody>
</table>
Master of Law in Lawyering - Emphasis in International Law

Student Learning Outcomes

Students graduating from this program will:

• Lawyering Skills. All LL.M. in Lawyering students will acquire or improve the following legal skills: the ability to read and analyze legal texts, including cases; the ability to conduct legal research on U.S. law sources; the ability to spot legal issues raised by typical legal problems; the ability to apply the law to factual scenarios; the ability to analyze legal issues and predict likely judicial outcomes; the ability to communicate legal analysis clearly in writing and orally; the ability to interview witnesses and clients; the ability to counsel clients with legal analysis and legal options; the ability negotiate a legal issue or problem with an adversary; the ability to make persuasive arguments based on the combination of law and facts.

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<td>Advanced Legal Research: Foreign, Comparative and International Law</td>
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<td>LAW 8702</td>
<td>Conflict of Laws</td>
<td>2-3</td>
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<tr>
<td>LAW 8735R</td>
<td>Law Of The European Union (Part I)</td>
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<tr>
<td>LAW 8737R</td>
<td>Law Of The European Union (Part II)</td>
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<tr>
<td>LAW 8754</td>
<td>International Business Transactions</td>
<td>2-3</td>
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<tr>
<td>LAW 8634I</td>
<td>International Criminal Law</td>
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<tr>
<td>LAW 8831R</td>
<td>International Human Rights Law</td>
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<td>LAW 8753</td>
<td>International Law</td>
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<tr>
<td>LAW 8738</td>
<td>Immigration Law And Process</td>
<td>2-3</td>
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<tr>
<td>LAW 8832</td>
<td>Law Of International Trade And Finance</td>
<td>3</td>
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<tr>
<td>LAW 8883</td>
<td>Seminar In National Security Law</td>
<td>2-3</td>
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Master of Law in Lawyering - Emphasis in Litigation

Student Learning Outcomes

Students graduating from this program will:

- Lawyering Skills. All LL.M. in Lawyering students will acquire or improve the following legal skills: the ability to read and analyze legal texts, including cases; the ability to conduct legal research on U.S. law sources; the ability to spot legal issues raised by typical legal problems; the ability to apply the law to factual scenarios; the ability to analyze legal issues and predict likely judicial outcomes; the ability to communicate legal analysis clearly in writing and orally; the ability to interview witnesses and clients; the ability to counsel clients with legal analysis and legal options; the ability negotiate a legal issue or problem with an adversary; the ability to make persuasive arguments based on the combination of law and facts.

- Legal English. For those students who were trained in law outside of the U.S. or another English-speaking, common law country, they will develop a working knowledge of key legal English terms used in law practice in the United States.

- Knowledge of U.S. Law. Students in the LL.M. in Lawyering program will learn or deepen their understanding of U.S. law generally and in particular sub-areas of U.S. law in one of the emphasis areas or such other area or combination of areas selected by the student with the approval of the academic advisor.

Below is a partial list of courses that would support the emphasis areas identified. Course schedules change on an annual basis, so all courses listed below may not be available in a particular year. The LL.M. student’s academic advisor may approve additional courses not listed as counting towards an emphasis area. One course, Global Legal Systems, is listed for each emphasis area because students write papers to compare US law to the law of other countries, and that course can count towards an emphasis area if the paper topic supports the emphasis and is approved by the academic advisor.

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<td>Introduction to Appellate Advocacy</td>
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<td>LAW 8748</td>
<td>Appellate Advocacy - Ellison Moot Court Competition</td>
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<td>LAW 8850</td>
<td>Applied Evidence</td>
<td>1-3</td>
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<tr>
<td>LAW 8521</td>
<td>Civil Procedure I</td>
<td>3</td>
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<tr>
<td>LAW 8522</td>
<td>Civil Procedure II</td>
<td>2-3</td>
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<tr>
<td>LAW 8791</td>
<td>Civil Rights</td>
<td>2-3</td>
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<tr>
<td>LAW 8706</td>
<td>Complex Litigation</td>
<td>2-3</td>
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<tr>
<td>LAW 8702</td>
<td>Conflict of Laws</td>
<td>2-3</td>
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<tr>
<td>LAW 8621</td>
<td>Evidence</td>
<td>3</td>
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<tr>
<td>LAW 8662</td>
<td>Federal Court Internship</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8765</td>
<td>Federal Jurisdiction</td>
<td>2-3</td>
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<td>LAW 8711</td>
<td>Remedies</td>
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<td>LAW 8700</td>
<td>Trial Advocacy I</td>
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<tr>
<td>LAW 8703</td>
<td>Trial Advocacy II</td>
<td>2-3</td>
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<tr>
<td>LAW 8743</td>
<td>Global Legal Systems (with appropriate topic for paper)</td>
<td>1-3</td>
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Master of Law in Lawyering - Emphasis in Tax Law

Student Learning Outcomes

Students graduating from this program will:

- Lawyering Skills. All LL.M. in Lawyering students will acquire or improve the following legal skills: the ability to read and analyze legal texts, including cases; the ability to conduct legal research on U.S. law sources; the ability to spot legal issues raised by typical legal problems; the ability to apply the law to factual scenarios; the ability to analyze legal issues and predict likely judicial outcomes; the ability to communicate legal analysis clearly in writing and orally; the ability to interview witnesses and clients; the ability to counsel clients with legal analysis and legal options; the ability to negotiate a legal issue or problem with an adversary; the ability to make persuasive arguments based on the combination of law and facts.

- Legal English. For those students who were trained in law outside of the U.S. or another English-speaking, common law country, they will develop a working knowledge of key legal English terms used in law practice in the United States.

- Knowledge of U.S. Law. Students in the LL.M. in Lawyering program will learn or deepen their understanding of U.S. law generally and in particular sub-areas of U.S. law in one of the emphasis areas or such other area or combination of areas selected by the student with the approval of the academic advisor.

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<td>Partnership Taxation II</td>
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<tr>
<td>LAW 8886</td>
<td>Corporate Taxation I</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8887</td>
<td>Corporate Taxation II</td>
<td>3</td>
</tr>
<tr>
<td>LAW 8892R</td>
<td>Taxation Of Estates, Gifts And Trusts</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8908</td>
<td>Family Tax Law</td>
<td>1</td>
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<tr>
<td>LAW 8552</td>
<td>Federal Taxation</td>
<td>3</td>
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<tr>
<td>LAW 8843</td>
<td>Federal Income Taxation Of Estates And Trusts</td>
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<tr>
<td>LAW 8888R</td>
<td>Partnership Taxation I</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8889</td>
<td>International Taxation</td>
<td>2-3</td>
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<tr>
<td>LAW 8848R</td>
<td>State And Local Taxation</td>
<td>2-3</td>
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<tr>
<td>LAW 8603</td>
<td>Taxation Of Business Organization</td>
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<tr>
<td>LAW 8834</td>
<td>Tax Procedure</td>
<td>2</td>
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<td>LAW 8612R</td>
<td>Tax Planning With Life Insurance</td>
<td>1</td>
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<tr>
<td>LAW 8838R</td>
<td>Tax Practicum I</td>
<td>1-3</td>
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<tr>
<td>LAW 8743</td>
<td>Global Legal Systems (with appropriate topic for paper)</td>
<td>1-3</td>
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Master of Law in Lawyering - Emphasis in U.S. Law

Student Learning Outcomes

Students graduating from this program will:

- Lawyering Skills. All LL.M. in Lawyering students will acquire or improve the following legal skills: the ability to read and analyze legal texts, including cases; the ability to conduct legal research on U.S. law sources; the ability to spot legal issues raised by typical legal problems; the ability to apply the law to factual scenarios; the ability to analyze legal issues and predict likely judicial outcomes; the ability to communicate legal analysis clearly in writing and orally; the ability to interview witnesses and clients; the ability to counsel clients with legal analysis and legal options; the ability negotiate a legal issue or problem with an adversary; the ability to make persuasive arguments based on the combination of law and facts.

- Legal English. For those students who were trained in law outside of the U.S. or another English-speaking, common law country, they will develop a working knowledge of key legal English terms used in law practice in the United States.

- Knowledge of U.S. Law. Students in the LL.M. in Lawyering program will learn or deepen their understanding of U.S. law generally and in particular sub-areas of U.S. law in one of the emphasis areas or such other area or combination of areas selected by the student with the approval of the academic advisor.

Below is a partial list of courses that would support the emphasis areas identified. Course schedules change on an annual basis, so all courses listed below may not be available in a particular year. The LL.M. student's academic advisor may approve additional courses not listed as counting towards an emphasis area. One course, Global Legal Systems, is listed for each emphasis area because students write papers to compare US law to the law of other countries, and that course can count towards an emphasis area if the paper topic supports the emphasis and is approved by the academic advisor.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>LAW 8601</td>
<td>Business Organizations</td>
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<td>LAW 8521</td>
<td>Civil Procedure I</td>
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<td>LAW 8522</td>
<td>Civil Procedure II</td>
<td>2-3</td>
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<td>LAW 8631</td>
<td>Constitutional Law</td>
<td>4</td>
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<td>LAW 8501</td>
<td>Contracts I</td>
<td>3</td>
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<tr>
<td>LAW 8502</td>
<td>Contracts II</td>
<td>3</td>
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<td>LAW 8634</td>
<td>Criminal Law</td>
<td>3</td>
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<tr>
<td>LAW 8635</td>
<td>Criminal Procedure I</td>
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<tr>
<td>LAW 8636</td>
<td>Criminal Procedure II</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8611</td>
<td>Estates And Trusts</td>
<td>3-4</td>
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<td>LAW 8621</td>
<td>Evidence</td>
<td>3</td>
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<td>LAW 8633</td>
<td>First Amendment Law</td>
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<tr>
<td>LAW 8541</td>
<td>Property I</td>
<td>3</td>
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<td>LAW 8542</td>
<td>Property II</td>
<td>3</td>
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<td>LAW 8720</td>
<td>Secured Transactions</td>
<td>3</td>
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<td>LAW 8735</td>
<td>Seminar In Famous Trials</td>
<td>2-3</td>
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<tr>
<td>LAW 8511</td>
<td>Torts</td>
<td>3</td>
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<tr>
<td>LAW 8743</td>
<td>Global Legal Systems (with appropriate topic for paper)</td>
<td>1-3</td>
</tr>
</tbody>
</table>
School of Law Administrative Rules

Inclement Weather Policy

In the event of inclement weather and a determination by the University that classes are to be cancelled and/or closed, the University will provide for immediate distribution of information through UMKC Alert!, the University's mass notification system program, including: text messaging, personal and UMKC voice mail, personal and UMKC email, and pagers; mass email/voicemail notice to UMKC Everyone (faculty, staff & students); and postings on UMKC home page (http://umkc.edu/), Law School Intranet a/k/a the Rooniverse (https://mylaw.umkc.edu); and UMKCAalert! (umkc.edu/umkcalert) (http://www.umkc.edu/umkcalert). The policy is contained in the UMKC Business Interruption Policy at http://info.umkc.edu/hr/wp-content/uploads/2015/11/Business_Interruption_Policy_2013.pdf. Faculty/staff and students can opt to have the emergency notification, which includes school closing and class cancellations sent by text or voice mail to their personal phones. The link to the emergency notification FAQ page is http://www.umkc.edu/umkcalert/umkcalert_faq.asp.

Alcoholic Beverages

It is a violation of University regulations to use, sell, purchase or serve alcoholic beverages on University property unless specifically approved by the Vice Chancellor for Student Affairs and Enrollment Management.

Student groups desiring approval must request the approval at least two weeks prior to the date of the intended use. Request forms are available on the All Organizations Council Site on the Law School Intranet a/k/a the Rooniverse (https://mylaw.umkc.edu/).

Parking

The parking lot and driveway on the north side of the law building are for faculty and staff parking. Violators deprive faculty and staff of parking spots they pay for and violators will be ticketed and their vehicles may be towed or locked by a "boot." Students must register their vehicles at UMKC Parking Operations and pay for a student parking permit. Student permits are valid only in student parking lots. Parking regulations are enforced Monday through Friday, 6 a.m.-10 p.m. throughout the year, including the time between semesters. The following link pertains to parking operations: http://www.umkc.edu/adminfinance/parking/.
Henry W. Bloch School of Management

Bloch School (http://www.bloch.umkc.edu)
5110 Cherry Street
(816) 235-2215
bloch@umkc.edu
http://www.bloch.umkc.edu/

Mailing Address
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Henry W. Bloch School of Management
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Kansas City, MO 64110-2499

Dean:
Brian Klaas

Associate Dean for Academic Affairs and Programs:
David Cornell

Chair, Department of Accountancy:
David Cornell

Chair, Department of Global Entrepreneurship:
Jeff Hornsby

Chair, Department of Finance:
John Clark

Chair, Department of Management:
Sidne Ward

Chair, Department of Marketing & Supply Chain Management:
Kalpesh Desai

Chair, Department of Public Affairs:
Arif Ahmed

Director, Executive MBA and MPA Programs:
Scott Helm

Director, Lewis White Real Estate Center:
Charles Connely

Coordinator, Doctoral Studies in Public Affairs and Administration:
Arif Ahmed

Coordinator, Doctoral Studies in Entrepreneurship and Innovation:
Brian Anderson

Degree Programs

The Bloch School offers the degrees of bachelor of business administration (B.B.A.), bachelor of science in accounting (B.S.A.), master of business administration (MBA), master of public administration (M.P.A.), master of science in accounting (M.S.A.), master of science in finance (M.S.F.), and master of science in entrepreneurial real estate (M.S.E.R.E.). Within the MBA program there are Executive MBA (EMBA), and Professional MBA offerings. Within the M.P.A., there is an Executive M.P.A. (E.M.P.A.). Additionally, the School has two joint degree programs with the UMKC School of Law, the J.D./MBA and the J.D./M.P.A. degrees, participates in the Interdisciplinary Ph.D. program and offers a Ph.D. in Entrepreneurship & Innovation. The Bloch School also offers business and entrepreneurship minors. The Department of Public Affairs also has a Graduate Certificate in Nonprofit Management and Innovation and a Graduate Certificate in Urban Policy Administration.

History

The University has offered business courses since 1933. In 1953, with the support and encouragement of the Kansas City community, the School of Business Administration was established. Since that time, the Bloch School has grown to a student body of 2000 and a faculty of approximately 45 professional educators. In January 1988, the School was renamed for Henry W. Bloch, co-founder of H&R Block, and moved into a newly expanded building. In 2010, the School officially changed its name to the Henry W. Bloch School of Management to reflect our differentiation as a school that
integrates business management, public administration and the infusion of a global, innovative and entrepreneurial mindset. In the fall of 2013, a second building was added to the Bloch School, the Bloch Executive Hall for Entrepreneurship and Innovation.

**Mission and Vision**

The Henry W. Bloch School of Management develops purposeful, entrepreneurial and innovative leaders to meet changing global demands, and advances knowledge and practice through excellent teaching, scholarship, outreach and service.

The Bloch School aspires to be Kansas City's nationally and globally preeminent school of management focusing on entrepreneurship and innovative thinking as the foundation for transforming talent and achieving sustainable growth in for-profit, public, and nonprofit enterprises.

**Accreditation**

The Bloch School is accredited by AACSB International - The Association to Advance Collegiate Schools of Business and by the Network of Schools of Public Policy, Affairs, and Public Administration (NASPAA).

**Advising and Student Services**

Staff in the Student Services Office, room 115 of Bloch Heritage Hall, assist students in applying for admission, planning programs and registering for courses. Freshmen and junior students must be advised each semester and advising is required for new students and students on probation. Advising information can be found at http://bloch.umkc.edu/students/student-services/advising.aspx. Faculty of the School's six curricular departments are also available to discuss students' programs. Students in the M.P.A. and M.S.E.R.E. programs are advised by departmental faculty. MBA students are advised by MBA program staff.

**Scholarships**

The Bloch School offers numerous scholarships for students enrolled in Bloch degree programs. Information and applications are available on the Bloch School Web site at http://bloch.umkc.edu/students/paying-for-school/bloch-scholarships.aspx. March 1 is the deadline for the majority of these scholarships, which are awarded for the following academic year. For information on loans, grants and other financial aid, contact the UMKC Student Financial Aid and Scholarships Office.

**Internships**

Students who want to experience work opportunities while in school are encouraged to take their learning beyond the classroom through internships. For-credit internships typically carry one to three hours of credit. To earn academic credit, students should identify a Bloch School faculty member qualified and willing to supervise an internship, complete an internship form available on the Bloch School Web site at http://bloch.umkc.edu/students/student-services/forms.aspx and enroll in an approved internship course. Interested students may contact the UMKC Career Services Office or Bloch Career Network.

**International Study Abroad**

Bloch School students have the opportunity to study abroad for credit. Students may study for a week, a semester, or an academic year. Students who are interested in study abroad opportunities should contact the Bloch School Student Services office or the UMKC International Academic Programs office.

**Faculty**

**Arif Ahmed** Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=ahmed); associate professor of health administration; B.D.S. (Dhaka Dental College); M.S.P.A., Ph.D. (University of Illinois - Urbana-Champaign).

**Latheff N. Ahmed**; professor emeritus of public administration; B.A. (University of Mysore); M.A., Ph.D. (University of Kansas).

**M. Ishrat N Ali** Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=ali); assistant professor of entrepreneurship and innovation; B.S., M.S. (University of Dhaka); M.B.A., Ph.D. (Darden School of Business, University of Virginia).

**Roy E. Baker**; professor emeritus of accounting; B.S., M.B.A. (University of Kansas); D.B.A. (Harvard University); C.P.A.

**Brian L. Belt**; professor emeritus of business and public administration; B.I.E, M.S.I.E (Ohio State University); M.B.A. (Texas Christian University); Ph.D. (University of North Texas).

**Barbara A. Bichelmeyer**; provost, UMKC, and professor of management; B.S., B.A., Ph.D. (University of Kansas).

**Lee G. Bolman** Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=bolman); Marion H. Bloch/Missouri Endowed Chair in Leadership; B.A. (Yale College); Ph.D. (Yale University).

**Kimberly Church** assistant professor of accounting; B.B.A. (Pittsburg State University); M.A. (Kansas State University); Ph.D. (University of Arkansas).
John Clark Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=clark); associate professor of finance; B.A., M.A., Ph.D. (University of Alabama).

Charles Connely; teaching associate professor; B.B.A., MBA (University of Missouri - Kansas City).

David W. Cornell Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=cornell); associate professor of accounting, associate dean, and interim chair, Department of Accountancy; B.S. (University of Kentucky); M.B.A. (Eastern Kentucky University); Ph.D. (Louisiana State University); C.P.A., C.M.A.

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William B. Eddy; dean emeritus, Bloch School, and professor emeritus; B.S., M.S. (Kansas State University); Ph.D. (Michigan State University).

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Larry R. Garrison Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=garrison); Helen Kemper/Missouri Professor of accounting; B.S.B.A. (University of Central Missouri); M.S. (University of Missouri-Kansas City); Ph.D. (University of Nebraska-Lincoln); C.P.A.

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Doranne M. Hudson; Executive-in-Residence and teaching associate professor of leadership; B.A. (Duke University); M.S.W. (Washington University); M.B.A. (Harvard University).

Jeff S. Johnson Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=johnson); assistant professor of marketing; B.S., M.B.A., Ph.D. (University of Nebraska-Lincoln).

Karl F. Johnson; professor emeritus of public administration; B.B.A., M.P.A. (University of Missouri-Kansas City); Ph.D. (University of Oregon).

Jae C. Jung Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=jung); associate professor of international business; B.A., M.B.A. (Korea University); Ph.D. (University of Western Ontario).
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David Kuipers Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=kuipers); associate professor of finance; B.S. (Iowa State University); M.S. (University of Houston-Clear Lake); Ph.D. (University of Missouri-Columbia).

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Sarah Martin-Anderson Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=martin-anderson); assistant professor of health administration; B.A. (California State University, Bakersfield); M.P.H., M.P.P., Ph.D. (University of California, Berkeley).

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Neil E. McNeill; associate professor emeritus of accounting; B.S. (University of Kansas); M.B.A. (University of Pittsburgh); D.B.A. (Harvard University); C.M.A.

Brent Never Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=never); associate professor of nonprofit leadership; B.A. (Connecticut College); Ph.D. (Indiana University).

Mark Parry Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=parry); Ewing Marion Kauffman/Missouri Endowed Chair in Entrepreneurial Leadership and professor of marketing; B.A. (Metropolitan State College); M.A. (University of Texas-Arlington); Ph.D. (University of Texas-Dallas).

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Roger A. Pick Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=pick); professor of management information systems; B.S. (University of Oklahoma); M.S., Ph.D. (Purdue University).

George E. Pinches; professor emeritus of business economics and finance; B.S., M.B.A. (Oklahoma State University); Ph.D. (Michigan State University).

Stephen W. Pruitt Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=pruitt); Arvin Gottleib/Missouri Endowed Chair in Business Economics and Finance; B.S. (Purdue University); M.B.A. (Ohio State University); Ph.D. (Florida State University).

Rita-Marie Cain Reid Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=cain); professor of business law; B.A. (Rockhurst University); J.D. (University of Kansas).

David O. Renz Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=renz); director of the Midwest Center for Nonprofit Leadership, Beth K. Smith/Missouri Endowed Chair in Nonprofit Leadership and chair, Department of Public Affairs; B.S., M.A., Ph.D. (University of Minnesota).

Leon Robertson professor emeritus of strategic and international management; B.S., M.S. (Georgia Institute of Technology); Ph.D. (Georgia State University).

Probir Roy; associate professor emeritus of quantitative analysis; B.S. (Indian School of Mines); M.B.A. (Indian Institute of Management); Ph.D. (University of Cincinnati).

Leigh Salzsieder Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=salzsieder); associate professor of accounting; B.A. (Drury University); M.B.A. (University of Kansas); Ph.D. (University of South Carolina).

Tammie Schaefer assistant professor of accounting; B.S., MBA (Rockhurst University); Ph.D. (University of South Carolina).

Robert D. Schrock; professor emeritus of finance; B.A. (McPherson College); M.A., Ph.D. (University of Kansas).

Eleanor Brantley Schwartz; chancellor emerita, UMKC; dean emerita, Bloch School; and professor emerita of business and public administration; B.A.A., M.B.A., D.B.A. (Georgia State University).

Sharon A. Simmons; Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=self); assistant professor of entrepreneurship and innovation; B.S. (Hampton University), M.Acc., J.D. (University of Virginia), Ph.D. (Syracuse University).
Joseph F. Singer Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=singer); professor emeritus of business operations and analysis; B.S. (Morningside College); M.B.A. (University of Missouri-Kansas City); Ph.D. (University of Arkansas).

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Sidne G. Ward Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=ward); director of global management education initiatives; associate professor of management information systems and chair, Department of Management; B.A., M.B.A. (University of Oklahoma); Ph.D. (University of California-Los Angeles).

Nancy Weatherholt Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=weatherholt); associate professor of accounting; B.S.B., M.B.A., Ph.D. (University of Kansas).

Edwin H. White; professor emeritus of law and administration; A.B., J.D. (University of Missouri-Columbia); M.A. (University of Missouri-Kansas City).

Anne Williamson; Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=self); Victor and Caroline Schutte/Missouri Professor of Urban Affairs; B.B.A. (middle Tennessee State University); M.A. (University of Florida); Ph.D. (University of Georgia).

Walter B. Wright; dean emeritus of continuing education and extension; dean emeritus, Bloch School; and professor emeritus of business administration; B.A. (University of Iowa); M.B.A. (University of Kansas).

\[\text{Associate or Adjunct Graduate Faculty}\]
\[\text{Members of UMKC Graduate Faculty}\]
\[\text{Members of UMKC Doctoral Faculty}\]
\[\text{Located at UM-St. Louis campus}\]

**Undergraduate**

**Undergraduate Programs:**
- Bachelor of Business Administration
- Bachelor of Science in Accounting
- Business Administration Minor
- Entrepreneurship Minor

**Graduate**

**Graduate Programs:**
- Graduate Certificate in Nonprofit Management and Innovation (p. 1472)
- Graduate Certificate in Urban Policy Administration (p. 1473)
- Master of Business Administration
- Master of Entrepreneurial Real Estate (p. 1486)
- Master of Public Administration
- Master of Science in Accounting
- Master of Science in Finance (p. 1488)
- PhD in Entrepreneurship and Innovation (p. 1491)
- Interdisciplinary Ph.D. Programs

**Accounting Courses**

ACCTNG 210 Introduction To Financial Accounting Credits: 3
An overview of basic concepts and terminology associated with reporting financial information to parties outside of an organization. This course requires students to take an accompanying lab that meets one day a week.

**Prerequisites:** MATH 110 (or ALEKS score of 61 or higher) and sophomore standing.

ACCTNG 211 Introduction To Managerial Accounting Credits: 3
An introduction to the use of cost accounting concepts and information in managing the activities of a business.

**Prerequisites:** ACCTNG 210 and sophomore standing.
ACCTNG 306 Introduction to the Accounting Profession and Procedures Credits: 3  
A study of the profession of accounting, the accounting process, and tools used in implementing that process.  
Prerequisites: ACCTNG 210 and sophomore standing.

ACCTNG 307 Cost Management Credits: 3  
A study of the principles and techniques of cost accounting with emphasis on the structure of cost accounting systems and the processing, summarizing and reporting of cost information. Topics include various issues relevant for manufacturing and service organizations, and introduction of situations that require the application of cost information to managerial settings.  
Prerequisites: ACCTNG 211 and junior standing.

ACCTNG 310 Intermediate Accounting I Credits: 3  
A study of theory and application of external corporate reporting. The course covers a variety of financial accounting issues including assets, liabilities, revenue recognition, and accounting change analysis. Publications and pronouncements of the accounting professions are emphasized where applicable.  
Prerequisites: ACCTNG 306 and Bloch student.

ACCTNG 311 Intermediate Accounting II Credits: 3  
Continued study of intermediate accounting. The course covers a variety of financial accounting issues including corporate equities, income taxes, pensions, other post-employment benefits, leases, and the statement of cash flows. Publications and pronouncements of the accounting profession are emphasized where applicable.  
Prerequisites: ACCTNG 310.

ACCTNG 350 Accounting Systems And Controls Credits: 3  
This course examines a number of systems employed to process accounting information, the internal control activities typically used in each system and associated documentation techniques.  
Prerequisites: ACCTNG 310.

ACCTNG 360 Accounting Research and Communications Credits: 3  
A study of solving accounting issues by conducting research in the professional literature and communicating the results of that research to users.  
Prerequisites: ACCTNG 310 and MGT 301 or MGT 301A.

ACCTNG 405 Auditing Credits: 3  
A study of how the auditor determines the nature and amount of evidence that should be accumulated considering the unique aspects of an engagement, as well as some idea of how that evidence is evaluated in the context of a financial audit.  
Prerequisites: ACCTNG 311 and ACCTNG 350.

ACCTNG 411 Becker CPA Review Credit: 1  
Structured review of materials for the financial, auditing, business environment, and regulatory sections of the CPA examination.  
ACCTNG 412 Introduction to Income Taxation Credits: 3  
An examination of the theory, practice, and research methodology of taxation as applied to individuals and business entities.  
Prerequisites: ACCTNG 211.

ACCTNG 418 Data Analytics for Accounting Credits: 3  
Data Analytics is an investigation of the stories that large data stores can tell if only we know how to unravel them. As such, this course will examine big data sources from both a data-mining and a hypothesis-testing approach.  
Prerequisites: ACCTNG 405.

ACCTNG 420 Advanced Accounting Credits: 3  
A study of the accounting for business combinations and the preparation of consolidated financial statements.  
Prerequisites: ACCTNG 311.

ACCTNG 421 Governmental/Not-For-Profit Accounting Credits: 3  
An overview of accounting for state and local governments and not-for-profit entities. Pronouncements of the accounting profession are emphasized where applicable.  
Prerequisites: ACCTNG 311.

ACCTNG 464 Principles of Internal Auditing Credits: 3  
A study of how the internal auditor determines the nature and amount of evidence that should be accumulated considering the unique aspects of an engagement, as well as some idea of how that evidence is evaluated in the context of a financial audit.  
Prerequisites: ACCTNG 311 and ACCTNG 350.

ACCTNG 465 Advanced Accounting Systems Credits: 3  
An in-depth analysis of various contemporary issues in accounting information systems.  
Prerequisites: ACCTNG 350.
ACCTNG 470 Fraud Auditing Credits: 3
An examination of the elements of fraud and the fraud auditing process.
Prerequisites: ACCTNG 405 or equivalent.

ACCTNG 482 Global Accounting Challenge Credits: 3
An international simulation of the challenges that exist when global teams address international accounting issues. Requires international travel.

ACCTNG 487 Special Topics Credits: 3
Special topics in accounting.

ACCTNG 490 Becker CPA Review Funded Credit: 1
Structured review of materials for the Financial, Auditing, Business Environment and Regulatory sections of the CPA examination.
Prerequisites: Students must be within one year of exam eligibility.

ACCTNG 491 Becker CPA Review Partial Funding Credit: 1
Structured review of materials for the Financial, Auditing, Business Environment and Regulatory sections of the CPA examination.
Prerequisites: Student must be within one year of exam eligibility.

ACCTNG 492 Becker CPA Review Self Funded Credit: 1
Structured review of materials for the Financial, Auditing, Business Environment and Regulatory sections of the CPA examination.
Prerequisites: Student must be within one year of exam eligibility.

ACCTNG 496 Internship: Accounting Credit: 1
An opportunity for students to integrate their academic studies via employment with a business/organization in the community. Internship coursework is evaluated on a credit/no credit basis.

ACCTNG 497 Special Topics In Accounting Credits: 1-3
Study and research in accounting areas of special student interest, under individual faculty supervision and guidance.
Prerequisites: Departmental consent.

ACCTNG 5501 Finance Performance & Assessment Credit: 1.5
This course covers the fundamentals of financial reporting systems. The material is presented from a user perspective. This approach is intended to prepare students to use accounting information and will not necessarily result in students understanding the process used to record accounting transactions. Material is presented in a manner that emphasizes how accounting information is used for decision making.

ACCTNG 5503 Financial Accounting for Decision Making Credits: 3
An introduction to the role of financial accounting in organizational decision making. The course provides students with an understanding of the process for reading, analyzing, and interpreting financial accounting data to make informed business decisions. Students will learn the strengths and limitations of accounting information and how it can be used to create value for the organization.
Prerequisites: Students must be enrolled in a Bloch School graduate program.

ACCTNG 5510 Legal & Ethical Environment for Accountancy Credits: 3
The course exposes accounting students to major legal subjects and ethical issues that they will encounter on the CPA exam as part of an accountancy practice. Working individually and in groups, students will be asked to solve problems regarding business formation and securities regulation, intellectual property rights, contract formation, and secured interests of creditors.
Prerequisites: MS Accountancy students who did not have any business law course as part of their undergraduate degree.

ACCTNG 5511 Becker CPA Review Credit: 1
Structured review of materials for financial, auditing, business environment, and regulatory sections of the CPA examination.

ACCTNG 5517 Survey Of Accounting Credits: 3
An overview of financial and managerial accounting. The course introduces the various reports that are used by stockholders, creditors, and managers to assess company performance and evaluate financial health. In addition, techniques are presented that assist firm managers in planning, control, and decision-making activities.

ACCTNG 5520 Financial Accounting and Reporting: The Language of Business Credits: 2
Focusing on the three main financial statements (the balance sheet, the income statement, and the statement of cash-flows), students develop an understanding of how transactions and events are captured in the accounting system and ultimately impact the financial statements. Students will learn the mechanics of financial accounting needed to analyze financial information while also considering how incentives influence the financial reporting process.

ACCTNG 5521 Managerial Accounting: Critical Data for Important Decisions Credits: 2
Covers the fundamental accounting tools and analytical skills managers use to make decisions in an innovative and globally competitive business environment. The vocabulary and mechanics of cost accounting, basic issues involved in the design of managerial accounting systems to provide decision useful information, and the role of managerial accounting resource allocation and performance evaluation.
ACCTNG 5550 Accounting Information Systems Credits: 3
This course examines a number if systems employed to process accounting information, the internal control activities typically used in each system, and associated documentation tools.
Prerequisites: ACCTNG 310, MIS 202.

ACCTNG 5551 Governmental/Not-for-Profit Accounting Credits: 3
An overview of accounting for state and local governments and not-for-profit entities. Pronouncements of the accounting profession are emphasized where applicable.
Prerequisites: ACCTNG 311 or equivalent.

ACCTNG 5556 Cost Management Credits: 3
A study of the principles and techniques of cost accounting with emphasis on the structure of cost accounting systems and the processing, summarizing, and reporting of cost information. Topics include various issues relevant for manufacturing and service organizations, and introduction of situations that requires the application of cost information to managerial settings.
Prerequisites: ACCTNG 5517 (or equivalent).

ACCTNG 5557 Introduction To Income Taxation Credits: 3
An investigation of the structure of federal, state, and local taxation, along with an examination of the impact of taxes on the management decision process. NOT available for students who have completed ACCTNG 408.
Prerequisites: ACCTNG 5517 (or equivalent).

ACCTNG 5558 Financial Accounting Theory Credits: 3
A study of the theory and practice of financial accounting with emphasis upon financial statement preparation and analysis of asset, liability, and equity measurement.
Prerequisites: ACCTNG 310 or ACCTNG 5517 (or equivalent).

ACCTNG 5559 Advanced Financial Accounting Theory Credits: 3
A study of advanced topics in financial accounting. Topics include business combinations and financial statement consolidation theory and practice.
Prerequisites: ACCTNG 311 (or equivalent).

ACCTNG 5560 Introduction To Auditing And Accounting Systems Credits: 3
Fundamentals underlying the design of accounting systems and the processing of accounting data. Current auditing standards and procedures are extensively investigated, with emphasis on the nature of internal control, audit evidence, and audit reports. NOT available for students who have completed ACCTNG 405.
Prerequisites: ACCTNG 5558 (or equivalent).

ACCTNG 5561 Personal Financial Planning Credits: 3
A study of the personal financial planning process and environment, with the goal of training participants to prepare integrated financial plans. Topics addressed include an overview of insurance, retirement, investments, debt management, tax issues, estate planning and professional ethics.
Prerequisites: ACCTNG 5517 (or equivalent).

ACCTNG 5564 Principles of Internal Auditing Credits: 3
A study of how the internal auditor determines the nature and amount of evidence that should be accumulated considering the unique aspects of an engagement, as well as some idea of how that evidence is evaluated in the context of a financial audit.
Prerequisites: ACCTNG 311 and ACCTNG 350 or equivalent.

ACCTNG 5565 Advanced Accounting Systems Credits: 3
An in-depth analysis of various contemporary issues in accounting information systems.
Prerequisites: ACCTNG 310 and ACCTNG 350 (or equivalent).

ACCTNG 5567 Information Systems Control And Audit Credits: 3
A study of the theory and practices employed to provide a secure computing environment. Potential threats to information systems as well as controls designed to counter those threats are emphasized.
Prerequisites: one previous graduate course in accounting systems, management information systems, or computer science.

ACCTNG 5568 Data Analytics for Accounting Credits: 3
Data Analytics is an investigation of the stories large data stores can tell if only we know how to unravel the story. As such, this course will investigate big data sources from both a data-mining and a hypothesis-testing approach.
Prerequisites: ACCTNG 405 or equivalent.

ACCTNG 5569 Information Systems Consulting Credits: 3
An application of systems concepts to the evaluation of information systems of local organizations. Student teams will analyze, document and make recommendations for the improvement of these systems, and will communicate their findings via written reports and oral presentations.
Prerequisites: one graduate information systems course.
ACCTNG 5570 Fraud Auditing Credits: 3
This course is designed to provide students with an understanding of accounting-based fraud and the fraud audit process. This course will examine fraud risks and ways to manage, prevent, and detect the occurrence of fraud.
Prerequisites: ACCTNG 405 (or equivalent).

ACCTNG 5571 Individual Tax Problems Credits: 3
A study of substantive issues relating to individual taxation using the Internal Revenue Code and Regulations as sources. Topics include a detailed study of current issues such as alternative minimum tax, passive losses, and employee business expenses.
Prerequisites: ACCTNG 5557 (or concurrent enrollment in ACCTNG 409).

ACCTNG 5572 Tax Theory And Business Applications Credits: 3
A study of substantive issues relating to the taxation of business entities including multi-jurisdictional considerations. Topics include business formation and dissolution, business valuation, selection of business entity, compensation of employees, sales or exchanges of business property, and business tax credits.
Prerequisites: ACCTNG 409 or ACCTNG 5557 (or equivalent).

ACCTNG 5573 Taxation Of Estates, Gifts, And Trusts Credits: 3
A study of substantive issues in the income taxation of estates and trusts and the taxation of estates and gifts using the Internal Revenue Code and Regulations as sources. Emphasis will be placed on lifetime and post-mortem planning techniques as well as compliance requirements.
Prerequisites: ACCTNG 409 or ACCTNG 5557 (or equivalent).

ACCTNG 5574 Tax Accounting Credits: 3
A study of substantive issues relating to the accounting aspects of federal income taxation. Topics include methods of income and expense reporting, adoption of and change in accounting periods and methods, and annual accounting and transactional concepts.
Prerequisites: ACCTNG 409 or ACCTNG 5557 (or equivalent).

ACCTNG 5575 Managerial Accounting: Issues, Tools And Analysis Credits: 3
A look at various tools used to assist in the planning, control, performance evaluation, and decision-making activities of managers. Contemporary issues that confront management are introduced where appropriate.
Prerequisites: ACCTNG 307 or ACCTNG 5556 (or equivalent).

ACCTNG 5576 Tax Research, Procedure And Practice Credits: 3
An introduction to research sources and methods with an emphasis on analysis and communication of conclusions. Administrative procedures of the Internal Revenue Service and the professional responsibilities of tax practitioners will also be addressed.
Prerequisites: ACCTNG 409 or ACCTNG 5557.

ACCTNG 5577 Advanced Auditing Credits: 3
An analysis of real-world cases of audit problems with emphasis on red flags, pressures auditors face, and serious implications of audit failure (both perceived and real).
Prerequisites: ACCTNG 405 (or equivalent).

ACCTNG 5578 Current Problems In Accounting Credits: 3
This course will focus on an in-depth exploration of specific problems including, but not confined to those accounting problems which have resulted in official positions being published or considered by the accounting profession.
Prerequisites: ACCTNG 311 (or equivalent).

ACCTNG 5579 Theory Of Income Determination Credits: 3
This course will consider the historical and cultural development of accounting principles and the relationship of those principles to economic concepts of profit and cost. Consideration of the economic aspects of accounting measurements will provide a vehicle for exploring accounting problem areas in terms of both internal and external reporting needs. Pertinent literature in the field will be explored as a basis for both oral and written reports.
Prerequisites: ACCTNG 420 (or equivalent).

ACCTNG 5580 Financial Reporting Systems Credits: 2
Introduces generally accepted accounting principles and concepts along with the preparation and analysis of financial statements.
Prerequisites: Admission to Executive MBA Program.

ACCTNG 5582 Global Accounting Challenge Credits: 1-3
An international simulation of the challenges that exist when global teams address international accounting issues. Requires International travel.

ACCTNG 5587 Special Topics Credits: 3
This course is designed to facilitate one of two purposes: an initial offering of a new course (prior to formal approval) or an initial and possible only offering of new topics.
ACCTNG 5590 Becker CPA Review Funded Credit: 1
Structured review of materials for the Financial, Auditing, Business Environment and Regulatory sections of the CPA examination.
Prerequisites: Student must be within one year of exam eligibility.

ACCTNG 5591 Becker CPA Review Partial Funding Credit: 1
Structured review of materials for the Financial, Auditing, Business Environment and Regulatory sections of the CPA examination.
Prerequisites: Student must be within one year of exam eligibility.

ACCTNG 5592 Becker CPA Review Self Funded Credit: 1
Structured review of materials for the Financial, Auditing, Business Environment and Regulatory sections of the CPA examination.
Prerequisites: Student must be within one year of exam eligibility.

ACCTNG 5595 Internship Credit: 1
An opportunity for students to integrate their academic studies via employment with a business/organization in the community.

ACCTNG 5597 Independent Study Credits: 1-6
Independent study and research in areas of special interest under individual faculty direction.

ACCTNG 5597B Special Topics In Accounting:Cost/Managerial Accounting Theory Credits: 1-3

ACCTNG 5597G Special Topics In Accounting:Personal Financial Planning Credits: 1-3
Students will identify the political, social, ethical, regulatory, and global influences on the personal financial planning process; Students will apply personal planning techniques to a variety of personal situations; Students will demonstrate critical thinking skills by successfully completing unstructured homework problems and cases; Students will identify ethical issues relating to personal financial planning; Students will prepare written statements demonstrating their research and communication skills; Students will identify the benefits and risks of operating a financial consulting business.

ACCTNG 5899 Required Graduate Enrollment Credit: 1

**Business Public Administration Courses**

B&PA 524 Public Policy Context for Business Decisions Credits: 2
This course is designed to provide intensive exposure to the forces and personalities in Washington, D.C. that shape America's business policy. EMBA participants learn how to understand and anticipate the impact of public policy on their businesses and how to become more effective participants in the national decision-making process.
Prerequisites: Admission to the Executive MBA program.

**Dec Science and Operation Mgmt Courses**

DSOM 309 Intermediate Business Statistics Credits: 3
This course emphasizes statistical applications in business, and students will complete research projects using one or more multivariate statistical techniques. Students will identify the political, social, ethical, regulatory, and global influences on the personal financial planning process; Students will apply personal planning techniques to a variety of personal situations; Students will demonstrate critical thinking skills by successfully completing unstructured homework problems and cases; Students will identify ethical issues relating to personal financial planning; Students will prepare written statements demonstrating their research and communication skills; Students will identify the benefits and risks of operating a financial consulting business.

DSOM 326 Production/Operations Management Credits: 3
This course presents an introduction to the concepts, models, and methods of operations management. Students will study approaches to planning, scheduling, and controlling product and service facilities, processes, cost, quality, quantity, production, capacity, inventory, and distribution requirements. Computer applications and computer-based operations control systems will be introduced as a means to effectively manage the operations functions of both product and service organizations.
Prerequisites: ECON 202 and STAT 235; Bloch or BIT student with sophomore standing.

DSOM 346 Management Analysis Credits: 3
This course examines the application of various scientific and mathematical methods to decision making in management, and makes use of spreadsheets and other software to construct and analyze practical methods of real-world systems. Applications will be based on topics such as project management, decision analysis, scheduling, queuing systems, simulation, optimization/allocate models, forecasting, and profitability analysis.
Prerequisites: DSOM 326 and MIS 202.

DSOM 431 Quality and Process Improvement Credits: 3
A study of planning and managing effective quality and processes in organizations. Students are expected to master important quality management and process improvement tools including Six Sigma, Statistical Process Control, TQM, Theory of Constraints, and other contemporary tools via appropriate software, case studies, and projects.
Prerequisites: DSOM 309 and DSOM 326.

DSOM 487 Special Topics Credits: 3
Special topics in decision science and operations management.
DSOM 5505 Decision Sciences Credit: 1.5
Understanding the conceptual framework of statistics as it relates to business decision-making and problem solving. Most of the work will be done based on the real-life applications of statistical concepts to business problems and cases. The course includes the topics of descriptive statistics, probability distributions, tests of hypotheses, and multi-variate analysis.

DSOM 5507 Operations and Supply Chain Management Credit: 1.5
An integrating study that focuses on the models and methods of supply chain and operations management (SCOM). Managerial approaches to planning, scheduling, and controlling cost, time quality, production, inventory, services, and supply chain are studied. This survey course exposes students to supply chain management, ERP systems, lean/just-in-time, total quality management, e-commerce, and other contemporary SCOM topics in both product and service-oriented organizations.

DSOM 5508 Statistical Analysis In Business Credits: 3
Data analysis and statistical inference in the context of business management. Communication of analysis and conclusions using text, numbers, and graphics is emphasized. Understanding the conceptual framework of probability and statistics as it relates to statistical tests and procedures is emphasized more than computational methods. Most of the work will be done using a computer spreadsheet. The course includes the topics of estimation, tests of hypotheses, analysis of variance, and multiple regression.

DSOM 5509 Applied Statistical Methods Credits: 2
Investigates the use of detailed sample data for purposes of estimating, predicting, forecasting, and explaining correlations among varied observations. Students will apply the concepts of probability theory, central tendency, sampling, inference, modeling, and forecasting to help solve managerial problems and support decision processes. 
**Prerequisites:** Admission to Executive MBA Program.

DSOM 5522 Managerial Statistics and Quantitative Decision Making Credits: 2
Managerial statistics introduces the student to the statistical methodology used in making business decisions. The ethics of accurately presenting results without bias is emphasized. Concepts of probability, confidence intervals, hypothesis testing, ANOVA, correlation, regression, and ANCOVA are examined in the context of business and organization applications and solving statistical problems using the Statistical Package for Social Sciences (SPSS).

DSOM 5524 Data Analytics and Quantitative Decision Making Credits: 2
Students learn how to use business analytics in support of managerial decision making. Decision analysis, forecasting, simulations, risk analysis, optimization models, and sensitivity analysis will be covered.

DSOM 5525 Operations and Supply Chain Management Credits: 2
An examination of the basic principles and strategies used to manage the production and distribution of goods and services. This course positions operations management (OM) as an important tool for achieving strategic leadership through competitive advantage, and illustrates how the managerial integration of OM functions with corporate strategy improves business processes. Concepts covered in the course include (but are not limited to) operations strategy, process management, world class SCM, strategic sourcing, and quality management. Emphasis will be placed on the application of these concepts to actual business situations.

**Prerequisites:** Student must be enrolled in the Full-Time MBA program and in good academic standing.

DSOM 5540 Service Operations Management Credits: 3
This course focuses on the increasing importance and role of service in our economy. Topics studied are: the role of services in an economy, the nature of services, service strategy, the service delivery system, service facility location, the service encounter, service quality, productivity and quality improvement. Methods of process analysis in service organizations, methods improvement procedures, and work measurement techniques are developed to provide the basis for analyses of processes, layouts, and job design in a service organization.

**Prerequisites:** DSOM 5519 (or equivalent).

DSOM 5542 ERP-Enterprise Resource Planning Systems Credits: 3
Discusses the design and implementation of Advanced Manufacturing Technologies (AMT). This includes just-in-time (JIT) systems, cellular and flexible manufacturing systems (CMFMS), computer integrated manufacturing (CIM), and enterprise resource Planning (ERP) systems. It also explores the role that manufacturing plays in product development efforts and cross-functional teams. Other topics such as manufacturing strategy, maintenance, set-up and lot size reductions, group technology and focused factories, production and operations scheduling and control techniques, and the design of work systems are presented as well. Case Studies and group projects/presentations are used for instructional purposes. Students are also required to use the MAX software to perform an ERP system analysis.

**Prerequisites:** DSOM 5519 (or equivalent).

DSOM 5543 Project Management Credits: 3
Planning and control of projects, to include network models, risk analysis, time reduction, resource scheduling, leadership, and evaluation.

**Prerequisites:** DSOM 5519 (or equivalent).

DSOM 5544 Global Supply Chain and Logistics Management Credits: 3
A study of integrated global supply chain management and logistics. Topics include integrating global ERP and forecasting systems, inventory management, distribution requirements planning, supply chain management, purchasing and supplier/vendor networks, logistics, transportation networks, and E-operations. ERP systems and network optimization are studied relative to both production and service operations.

**Prerequisites:** DSOM 5519 (or equivalent).
DSOM 5545 Strategic Sourcing & Supplier Relationship Management Credits: 3
This course explores the roles of procurement and strategic sourcing as components of an overall supply chain strategy, and the impact this strategy has on the competitive success and profitability of organizations. The course will be structured into three segments: before you source, how to source, and after sourcing. Topics will include spend analysis, supplier research, market analysis, supplier evaluation, global sourcing considerations, negotiating, and supplier relationship management. The students will also gain an appreciation of the ethical, contractual, risk management, sustainability, and legal issues faced by purchasing professionals.

DSOM 5566 Operations Management for World Class Competitiveness Credits: 2
An examination of the basic principles and strategies used to manage the production and distribution of goods and services. This course positions operations management (OM) as an important tool for achieving strategic leadership through competitive advantage, and illustrates how the managerial integration of OM functions with corporate strategy improves business processes.
Prerequisites: Admission to the Executive MBA program.

DSOM 5587 Special Topics Credits: 3
Special topics in decision science and operations management.

DSOM 5595 Internship Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community.

DSOM 5597 Independent Study Credits: 1-6
Independent study and research in areas of special interest under individual faculty direction.

DSOM 5899 Required Graduate Enrollment Credit: 1
Entrepreneurship Innovation Courses

ENT 315 Entrepreneurial Mindset and Opportunity Recognition Credits: 3
This course teaches students how to develop an entrepreneurial mindset. Students will utilize play, creative problem solving, design thinking, and creativity tools while developing skills to mitigate risk and recognize opportunities.

ENT 321 Real Estate Principles Credits: 3
Starting with the basics of real estate terminology, students learn real estate’s role in the economy, it’s legal foundations, government controls, appraisal processes, valuation processes, brokering and closing transactions, time value of money, basic management issues and lease clauses, and basic standard form purchase contracts.

ENT 326 Creativity, Innovation, and Problem Solving Credits: 3
This course examines creativity and innovation, and their application to problem solving and developing new initiatives. Students will develop the ability to understand and solve problems and initiate opportunities by thinking new things. They will understand the concepts, skills, information, attitudes, and resources that leaders need to create valuable ideas, products, or initiatives.

ENT 327 Designing the Business Model Credits: 3
This course will teach students how to design a business model, refine that business model, and create a plan for a new venture. This course will take students through several different toolkits that can be used to create for-profit startups, social ventures, or create value within an existing organization.
Prerequisites: ENT 315 and MGT 301.

ENT 329 Entrepreneurship Scholars Credits: 3
In this course, students will acquire the skills required to manage and grow a successful new venture through hands-on, real-world work on their own venture. Students will work with the instructor and at least one mentor to identify specific deliverables and a long term venture plan. Students will manage their enterprise, attend a series of workshops, and work with their peers, instructional coaches and mentors to further their venture.
Prerequisites: Departmental consent with special application and selection process.

ENT 332 Managing the New Venture: Experiential Learning Credits: 3
In this course, students will acquire the skill sets needed to manage and grow a successful new venture, and will actually manage a new enterprise.
Prerequisites: ENT 215 or ENT 315 and ENT 327.

ENT 341 Technology Entrepreneurship Credits: 3
This course is designed to familiarize students with the creation of successful, high-value enterprises, with an emphasis on markets for technology and venture capital. Students identify a business opportunity, create a technology-based solution, and assess the commercial and technological viability of the business opportunity. Case studies will emphasize life sciences, engineering, and information technologies.

ENT 361 New Product Development Credits: 3
This course introduces students to a formal process used to develop new products and services. Throughout the process, students learn how an abstract idea can be transformed into concrete product concepts that will in turn be translated into tangible working prototypes.

ENT 364 Entrepreneurial Management and Innovation Credits: 3
Students are exposed to the unique entrepreneurial experience of conceiving, evaluating, creating, managing, and eventually selling a business. The goal is to provide a comprehensive background with practical application of important concepts applicable to an entrepreneurial environment. Key business areas of finance, accounting, marketing, and management will be addressed from an entrepreneurial perspective.
ENT 412 Entrepreneurial Finance Credits: 3
This course examines the financing and valuation of new ventures from the perspectives of entrepreneurs and venture capitalists. The focus is on financial thinking, tools, and techniques that are relevant for seeking new venture financing and making investment decisions. The course is suitable for anyone with an interest in startup companies, venture capital, or private equity firms.
Prerequisites: ACCTNG 210 and ENT 327.

ENT 421 Real Estate Finance Fundamentals Credits: 3
This course will provide a fundamental understanding of basic financial concepts of real estate including compounding and discounting, construction of amortization tables and after-tax yield analysis for a simple real estate investment. It also touches on the basics of title insurance, ownership issues, fixed rate versus variable rate mortgages in residential real estate, understanding housing bubbles, and trends in valuation of residential real estate. In addition, the student will complete mathematical comparisons of leasing versus owning a home.

ENT 425 Corporate Entrepreneurship Credits: 3
This course seeks to equip students with the skills required to develop new ideas and create viable new businesses or processes within the context of an established organization. The course will address the development of an internal culture of innovation, processes for reviewing ideas and for developing business concepts, strategic analysis, and positioning for competitive advantage.

ENT 432 Entrepreneurial Marketing and Selling Credits: 3
This course exposes students to the objectives, challenges, and requirements for effective, results-oriented marketing activities and sales efforts for the entrepreneur/new venture. Key topics include the selection, design, and budgeting of entrepreneurial marketing and advertising programs, along with effective selling, customer acquisition, and service/retention efforts.

ENT 460 Creating the Enterprise Credits: 3
This course looks at the processes and skills individuals require in order to create their own enterprise, manage a new business, or work within an entrepreneurial organization. Students will learn how to take a good idea, assess that idea, and develop an appropriate business model, and will work in teams to develop a full-length business plan.
Prerequisites: (or concurrent) ACCTNG 211, FIN 325, MKT 324, MGT 330, DSOM 326.

ENT 461 Social Entrepreneurship Credits: 3
This course introduces students to social entrepreneurship through lectures and discussions, key readings, guest speakers such as social entrepreneurs, case studies, videos, service-learning activities, and group assignments. Students will develop an understanding of the social entrepreneurship process, the differences between social entrepreneurship and business entrepreneurship, social enterprise, and different revenue streams including the importance of sustainability. By the end of the course, students will be able to develop a social entrepreneurship project proposal on a social problem they are compassionate about and make a presentation to the class.

ENT 462 Entrepreneurial Experience Credits: 3
In this course students integrate skillsets and apply an entrepreneurial mindset to a practical experience. The process includes identifying an opportunity, taking action, and evaluating outcomes of actions taken. The experience will be through project based consulting for a startup or entrepreneurial organization or within the context of a student’s own venture with prior approval.
Prerequisites: ENT 327, ENT 412.

ENT 487 Special Topics Credits: 3
Special topics in entrepreneurship.

ENT 496 Internship: Entrepreneurship Credits: 1-3
This course provides an opportunity for students to integrate their academic studies via employment with a business or organization in the community.

ENT 497 Special Topics: Entrepreneurship Credits: 1-3
Study and research in areas of special interest under individually faculty direction.
Prerequisites: Departmental consent.

ENT 497A Special Topics: Entrepreneurship Credits: 1-3
Study and research in areas of special interest under individually faculty direction.

ENT 497B Special Topics: Entrepreneurship Credits: 1-3
Study and research in areas of special interest under individually faculty direction.

ENT 5502 Introduction to Entrepreneurship Credit: 1.5
This course helps students develop insight into what it takes to launch a successful startup. The primary focus is on opportunity identification and evaluation. This is accomplished by examining the characteristics of a good entrepreneurial opportunity and the steps required to get a business up and running.

ENT 5508 Corporate Entrepreneurship and Innovation: Meeting the Management Challenge Credits: 3
This course seeks to equip students with the skills required to develop new ideas and create viable new businesses within the context of an established organization. The course will address the development of an internal culture of innovation, processes for reviewing ideas and for developing business concepts, strategic analysis, and positioning for competitive advantage.
Prerequisites: Enrolled in a Bloch School graduate program.
ENT 5515 Entrepreneurship Boot Camp Credits: 3
This course provides students with an understanding of the process for identifying and evaluating entrepreneurial opportunities. Students will also learn how strategy, marketing, financial and legal structure, and cash flow affect opportunities in terms of execution and growth, and how to position a new firm for success. The course will encourage students to reflect on their own entrepreneurial potential and to evaluate entrepreneurship as a potential career path. Even those who do not feel that they are entrepreneurs will benefit by discovering how to function more effectively in entrepreneurial organizations. Furthermore, those responsible for technical innovation and business development within existing organizations should find this course helps them to create value and distinguish themselves in their work performance.

ENT 5525 Entrepreneurship: Managing Creativity And Innovation Credits: 3
The course examines the nature of creativity and innovation and how entrepreneurship involves the ability to identify market opportunity based on new ideas. Detailed attention is given to the entrepreneurial process: the concepts, skills, know-how and know-who, information, attitudes, alternatives and resources that entrepreneurs need to manage creativity in the process of creating something with tangible economic value.

ENT 5527 Creating the New Venture Experiential Learning Credits: 3
This course guides students through the process, experiences, and requirements for creating a new venture and planning for operations up to the point of securing customers and generating first revenues. Key course actions include developing a business plan for the new venture, examining the initial steps for start-up and operational launch, and taking the initial steps to secure customers/revenues.

ENT 5529 Entrepreneurship Scholars Credits: 3
In this course, students will acquire the skills required to manage and grow a successful new venture through hands-on, real-world work on their own venture. Students will work with the instructor and at least one mentor to identify specific deliverables and a long term venture plan. Students will manage their enterprise, attend a series of workshops, and work with their peers, instructional coaches and mentors to further their venture.

ENT 5530 Creative Problem Solving: From Ideation to Implementation Credits: 2
Students develop critical thinking and facilitation skills to improve effectiveness in individual and team problem solving that requires creativity for an innovative solution. Each problem, situation, team, and organization have unique characteristics that will influence the appropriateness and effectiveness of particular problem solving processes and techniques. Using several CPS models, divergent and convergent thinking techniques, leadership skills, and facilitation skills students develop creative responses to challenging problems in organizations and work groups.

ENT 5531 New Product Development Credits: 2
A systematic overview of the management issues that arise during the process of new product development (NPD). Students learn integration across the traditional management functions and the tools and concepts for linking development to strategy and for managing the development process for speed, efficiency, and market impact. Students will develop a physical prototype of a product that meets and exceeds real customer needs.

ENT 5532 Managing the New Venture Experiential Learning Credits: 3
This course is designed to provide students an experiential learning opportunity in running a new business. In particular, students will run the business that they started in ENT 5527. Students will define and deliver products and services to real business customers and clients; negotiate with suppliers, administrative agencies and other stakeholders; obtain financing for on-going company relations; and be held accountable for cash flows and company budgets.

Prerequisites: ENT 5527.

ENT 5533 Technology Commercialization and Business Planning Credits: 2
Exploration of screen technology opportunities in diverse areas, from information systems to telecommunications, biotechnology, intellectual property acquisition, creation, and protection. Students will learn how to license technology that others have patented, and how to license their own technology to others and create diverse revenue streams.

ENT 5535 Small Business Management And Entrepreneurship Credits: 3
This course focuses on the nature of the entrepreneurial organization; its volatility and flux, where standard operating procedures are lacking and organizational structure, culture and leadership style are created anew each day. Successful small business management requires that a series of developmental challenges be identified and addressed if the venture is to succeed.

ENT 5545 Entrepreneurship And New Venture Creation Credits: 3
The objectives of this course are: (1) to build personal appreciation for the challenges and rewards of entrepreneurship in an independent mode by examining/simulating its environment; (2) to present and examine, through the use of complex case studies and high level guest/lectures, economic, legal and managerial mechanisms proven useful in creating new wealth; and (3) to foster continued development of venture ideas, suitable as career entry options or for investments, using a tutorial approach to business plan development, presentation and evaluation.

ENT 5549 Meeting the Management Challenge: The Role of Corporate Entrepreneurship and Innovation Credits: 2
Students learn the skills required to develop new ideas and create viable new businesses within the context of an established organization. The development of an internal culture of innovation, processes for reviewing ideas and for developing business concepts, strategic analysis, and positioning for competitive advantage will be explored.

ENT 5552 Entrepreneurial Marketing Credits: 3
This course exposes students to the objectives, challenges, and requirements for effective, results-oriented marketing activities and sales efforts for the entrepreneur/new venture. Key topics include the selection, design, and budgeting of entrepreneurial marketing and advertising programs, along with effective selling, customer acquisition, and service/retention efforts.
ENT 5561 New Venture Creation and Product Innovation Credits: 2
This course covers the first part of a two-course sequence and brings together several disciplines students have encountered in the first year of the Executive MBA program curriculum. Students will gain experience in new venture creation and product innovation management. A management simulation will serve as a continuing, evolving "case" in which course participants working in teams assume the role of CEO.
Prerequisites: Admission to the Executive MBA program.

ENT 5563 Social Entrepreneurship Credits: 3
This course introduces students to social entrepreneurship through lectures and discussions, key readings, guest speakers such as social entrepreneurs, case studies, videos, service-learning activities, and group assignments. Students will develop an understanding of the social entrepreneurship process, the differences between social entrepreneurship and business entrepreneurship, social enterprise, and different revenue streams including the importance of sustainability. In this course, students will develop a social entrepreneurship project proposal on a social problem in collaboration with a non-profit organization in the Kansas City area.
Prerequisites: None

ENT 5567 Innovation & Entrepreneurship I Credits: 2
This course, the first of a two-course sequence, covers the entrepreneurial and innovation process from conception to birth of the new business. It looks at both process and people involved in assessing ideas, exploiting opportunities, and converting concepts into high-growth businesses. Application of the processes will be extended to both start-ups and well as new business groups within existing organizations, with an emphasis on nurturing a climate of innovation. Students will identify opportunities for high-growth potential new enterprises, develop a business plan, and present their plans to a panel of potential investors and/or senior managers.
Prerequisites: Admission to the Executive MBA program.

ENT 5571 Advanced Real Estate Finance Credits: 3
This course introduces students to the full spectrum of real estate finance and investment analysis. It helps students quantify the financial implications of various real estate decisions for individual properties as well as more strategic decision-making applied to real estate portfolios. Using a combination of experiential and incremental learning students develop the foundation skills necessary to support more advanced concepts and financial theory. The course explores time value of money, law, leverage, underwriting, discounted cash flow, investment analysis, and capital markets. Students also develop advanced modeling skills and learn how to apply state-of-the-art financial packages to support decisions.
Prerequisites: RL-EST 5556.

ENT 5572 MBA Capstone Experience-Business Plan for a Startup Company Credits: 3
Class participants will develop a business plan for a startup company. The plan must demonstrate understanding of the product or service, and appropriate analyses including opportunity assessment for the new product/service, specifying the skills of the management team and the organization that the company will need to develop, the business model, the market, the industry including competitors, alternatives and choices for operations, the information systems and reports the management team will need, the milestones that investors should realistically expect the new entity to meet, and the financial requirements of the company in its early phases.

ENT 5573 Real Estate Market Analysis and Feasibility Study Credits: 3
This course helps students develop entrepreneurial, fact-based approaches to problem-solving and decision support. It incorporates experiential learning to help students deploy quantitative and qualitative approaches that incorporate the perspectives of space users, space producers, and market facilitators. Students learn how to address the goals and objectives of a particular client, while also considering the externalities and impacts such decisions have on the built environment. Students will integrate critical thinking with spatial and financial analytical methods and state-of-the-art tools to quantify market demand and to translate that demand to a spatial solution that is marketable and financially feasible.
Prerequisites: RL-EST 5556.

ENT 5576 Real Estate Property Management Credits: 3
This course explores the complexities and integration of property and portfolio management which are critical to the creation, control and capture of real estate value. Students learn how to approach real estate in a more holistic manner by integrating management functions that range from individual property types to portfolios of properties. Students learn how to incorporate marketplace factors in their decisions and apply modern portfolio theory and other tools to construct and manage properties and portfolios in a socially responsible manner. Using experiential methods students learn to apply critical thinking to solve complex property and portfolio management problems.
Prerequisites: ENT 5571.

ENT 5578 Legal Context of Real Estate Decision Making Credits: 3
This course introduces decisions involved in the development, ownership, and operation of commercial real estate and the legal issues associated with these decisions. Topics covered include: due diligence, loan application/brokerage agreements, zoning, easements, entitlements and condemnation actions, bankruptcy, commercial real estate insurance coverage, choice of business entity, income tax planning, and joint ventures.

ENT 5585 Entrepreneurial Finance and Venture Capital Investment Credits: 3
This course exposes students to the process of financing and investing in a new venture. The primary objective of this course is for students to develop a good understanding of the objectives, strategies, and challenges in financing and valuation of entrepreneurial firms through analyzing unique financial issues these firms and their investors face. Students will develop skills for assessing new venture financial viability, cash needs, funding sources, valuation, and funding structure.
ENT 5587 Special Topics Credits: 3
Special topics in entrepreneurship.

ENT 5587A Seminar In Entrepreneurship Credits: 1-6
A course on advanced and/or new topics. This course is designed to facilitate at least one of two purposes: an initial offering of a new course (prior to formal approval) or an initial and possibly final offering on a new topic. New topics include those that are contemporary, cutting edge, or advanced topics that are not currently covered by existing courses.

ENT 5587B Seminar In Entrepreneurship Credits: 1-6
A course on advanced and/or new topics. This course is designed to facilitate at least one of two purposes: an initial offering of a new course (prior to formal approval) or an initial and possibly final offering on a new topic. New topics include those that are contemporary, cutting edge, or advanced topics that are not currently covered by existing courses.

ENT 5587C Seminar In Entrepreneurship Credits: 1-6
A course on advanced and/or new topics. This course is designed to facilitate at least one of two purposes: an initial offering of a new course (prior to formal approval) or an initial and possibly final offering on a new topic. New topics include those that are contemporary, cutting edge, or advanced topics that are not currently covered by existing courses.

ENT 5591 Small Business Management Practicum Credits: 3
An integrated management course designed to examine the principles of business management applicable to solving the problems of small and medium size businesses and assisting in their development.

ENT 5595 Internship Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community.

ENT 5597 Independent Study Credits: 1-6
Independent study and research in areas of special interest under individual faculty direction.

ENT 5681 Multivariate Statistical Methods-II Credits: 3
Theoretical and research applications of MANOVA, canonical correlation, multiple discriminant analysis, factor analysis, and introduction to structural equation modeling using appropriate software. Students are expected to undertake a major research project during this class and to apply appropriate multivariate statistical analyses to their chosen academic research topic.

ENT 5682 Structural Equation Modeling Credits: 3
This course presents structural equation modeling. It includes a review of regression, as well as the study of path analysis, including model specification, methods of estimation, recursive and non-recursive models; direct, indirect, and total effects methods of estimation; single and multi-group analyses; moderators; mediators; structural equation model specification; identification, methods of estimation, second-order factor analysis, and the assessment of casual structure. Students are expected to continue a research project started in ENT 5681.

ENT 5683 Mathematical Models For Entrepreneurship Credits: 3
The purpose of this course is to provide an introduction to mathematical models in entrepreneurship and related disciplines. Classes will focus on the use of mathematical models to characterize the nature of various entrepreneurship-related decisions in complex environments. For each topic considered (e.g., RD investment decisions in new product entry, diffusion, and marketing mix variables), students will examine select examples of scholarly articles. Presentations and discussions are designed to help students understand and critique existing models and stimulate the development of new theoretical viewpoints.

ENT 5691 Doctoral Seminar In Theoretical Foundations Of Entrepreneurship I Credits: 3
ENT 5691 is designed as a broad survey of major topics in the field of entrepreneurship. Its objective is to familiarize students with some of the primary theoretical underpinnings of the field as well as some of the common and/or promising methodological approaches to the study of entrepreneurial phenomena. Topics covered in the course include a theoretical overview, entrepreneurs, environment and organizational founding. Prerequisites: Doctoral standing.

ENT 5692 Foundations Entrepreneurship Credits: 3
ENT 5692 is designed as a continuation of ENT 5691, providing a broad survey of major topics in the field of entrepreneurship. Its objective is to familiarize the student with some of the primary theoretical underpinnings of the field as well as some of the common and/or promising methodological approaches to the study of entrepreneurial phenomena. Topics covered in the course include: entrepreneurship’s links with other disciplines, venture capital and venture capitalists, new venture strategy, new venture performance, growth processes and challenges, and entrepreneurial networks and alliances.
ENT 5693 Technology, Innovation, And Entrepreneurship Credits: 3
This seminar will explore academic literature of technology, innovation, and entrepreneurship. Specific topics include emerging technologies, evolutionary theory, building capabilities based on networks, organizational learning, technological innovation, institutional economics, network externalities, knowledge transfer, technological trajectories and path dependencies.
Prerequisites: Doctoral standing.

ENT 5694 Doctoral Seminar In Theories Of The Firm And Strategy Credits: 3
In this course, students will become familiar with and develop an in-depth understanding of the concepts, models, and paradigms that collectively form the foundation for strategic thinking. Students will develop the ability to critically integrate findings from strategic research programs. Employing an appreciation for the interdisciplinary nature of strategic marketing and management, the purpose is to develop a keen awareness of major gaps that exist in the strategic literature. Students will strengthen the skills needed to conduct original strategic marketing research that can be published in the leading academic journals.
Prerequisites: Doctoral Standing.

ENT 5699 Dissertation and Research in Entrepreneurship and Innovation Credits: 1-12
Dissertation research and writing in Entrepreneurship and Innovation Discipline.

ENT 5899 Required Graduate Enrollment Credit: 1

Finance Courses
FIN 325 Financial Management Credits: 3
This course provides an overview of the relationship between business decisions and the value of the firm, as determined by the marketplace. Students will study the composition of capital structure, capital budgeting, and cost of capital theory, including incremental analysis of investment situations.
Prerequisites: ACCTNG 210; Bloch or BIT student with sophomore standing.

FIN 326 Financial Management 2 Credits: 3
Explores leverage and capital structure, dividend policy, raising capital, short-term financial planning, working capital management and international financial management. FIN 326 builds on the content of FIN 325. A cursory knowledge of accounting principles is assumed, as well as fluency with simple algebra and arithmetic skills.
Prerequisites: ACCTNG 210, FIN 325.

FIN 340 Global Financial Markets and Institutions Credits: 3
Students are introduced to global financial markets and institutions as well as the regulators. Topics include financial instruments, past and current global financial crises, financial restructuring and reforms, and the interrelationships between financial and real economies.
Prerequisites: FIN 325.

FIN 345 Investments Credits: 3
The course develops the theoretical framework necessary for a systematic approach to portfolio management. Content includes consideration of investment objectives, measurement of risk and returns, alternative uses of invested funds, analysis of securities markets, and the techniques of security analysis. Students will have an opportunity for the creation and management of an investment portfolio.
Prerequisites: FIN 325.

FIN 350 Introduction to Risk Management and Insurance Credits: 3
This course introduces students to the principles of personal and corporate risk management. Personal risk management topics include: personal insurance planning, annuity investing and personal liability management. Corporate risk management topics include: managing corporate risk, reducing risk through hedging, and legal liability risk.

FIN 351 International Financial Management Credits: 3
The world's business activities and economics are becoming more integrated. This course provides an introduction, appreciation and understanding of how this process impacts financial decisions for global business. Students should expect to develop an integrated analytical and decision making perspective that will enable them to extend financial concepts such as capital budgeting and risk management, and instruments such as forwards, swaps, fixed income analysis, arbitrage, etc. to their international analogs.
Prerequisites: FIN 325.

FIN 369 Payment Systems Credits: 3
The payment system is central to virtually all economic transactions. The payment system also has been undergoing fundamental changes over the past two decades. Yet, the payment system is one of the least understood parts of the economic system. The purpose of this course is to examine the payment system from economic, business, and regulatory standpoints.

FIN 419 Financial Statement Analysis Credits: 3
Students will take an in-depth look at the external financial statements that are prepared by corporations, including the tools needed to organize, summarize, and understand corporate financial data for use in decision making. Ratio analysis, trend analysis, earnings forecasting, bankruptcy predictors, statistical methods important to finance, and financial data bases are among the topics that will be covered.
Prerequisites: FIN 325 and must have junior standing with a major or minor within the Bloch School of Management.
FIN 428 Commercial Bank Management Credits: 3
This course presents an overview of financial management of the interest spreads, credit risk, liquidity, and capital positions of commercial banks. Topics to be covered include analysis of bank profitability, lending functions and policy, securities investment strategies, fund attraction, regulatory examination, capital adequacy, and integrated asset/liability management. Instructional media includes cases and computerized bank management simulation.
Prerequisites: ECON 202, FIN 325.

FIN 435 Advanced Corporate Finance Credits: 3
The course focuses on the finance function of the firm from the managerial perspective. Topics include working capital management, capital budgeting, financial structure, merger and reorganization, capital rationing, and analysis of risk. Students will use cases and computer techniques.
Prerequisites: FIN 325 and FIN 326.

FIN 445 Advanced Investments Credits: 3
Students take an in depth look at some of the advanced investment analysis tools used by practicing portfolio managers. This course covers the valuation of both derivative securities and fixed-income securities. There is also a strong focus on managing price risk, interest rate risk, and exchange rate risk. In addition there is an emphasis on bond portfolio management and derivative security applications.
Prerequisites: FIN 345.

FIN 451 Life & Health Insurance Credits: 3
This course focuses on insurance issues related to life and health insurance. Content includes consideration of life insurance needs, annuities, disability insurance, long-term care insurance, and personal and corporate health insurance issues.
Prerequisites: FIN 350.

FIN 452 Property and Casualty Insurance Credits: 3
This course focuses on insurance issues related to commercial property and liability insurance. Content includes consideration of issues related to managing risks such as loss of business income, employer liability, management liability, environmental liability and cyber-liability.
Prerequisites: FIN 350.

FIN 453 Risk Management Credits: 3
This course focuses on insurance issues related to managing corporate risk. Content includes consideration of issues related to managing risk such as enterprise risk management, reinsurance, corporate property and liability, and corporate uses for death and disability insurance for key employees.
Prerequisites: FIN 350.

FIN 454 Principles of Surety and Corporate Liability Credits: 3
This course focuses on insurance issues related to surety bonding and corporate liability. Content includes consideration of issues related to managing risk such as mitigating environmental liability, corporate safety programs, and surety bonding.
Prerequisites: FIN 350.

FIN 476 Introduction to Fintech Credits: 3
This course will introduce students to Fintech and provide an overview of the main areas in which it is disrupting finance. These areas include lending and equity investment (algorithmic lending, P2P lending and crowdfunding platforms); financial market infrastructure (cryptocurrencies, blockchain technology, smart contracts); portfolio management and financial advice (robo-investment); and financial trading (algorithmic trading, digital trading platforms). Students will learn how the new financial technologies work, how incumbents and new entrants might profit from the technologies, and how the technologies could affect the efficiency, accessibility, fairness, and security of the financial system.
Prerequisites: FIN 325.

FIN 487 Special Topics Credits: 3
Special topics in finance.

FIN 496 Internship: Finance Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community. Internship coursework is evaluated on a credit/no credit basis.

FIN 497 Special Topics: Finance Credits: 1-3
Study and research in areas of special interest under individual faculty direction.
Prerequisites: Departmental consent.

FIN 5501 Economics For Administration Credits: 3
This course is designed for graduate students in the School of Business and Public Administration. Topics include the theory and determination of national income, fiscal policy, monetary theory and policy, production and cost theory, and market structure.
FIN 5502 Corporate Financial Management I Credit: 1.5
This course provides a rigorous distillation of time value of money analysis techniques, methods which form the basic quantitative approach used in corporation finance. The three main topic areas covered during the course are the principles of time value of money analysis itself, its application to the valuation of corporate bond and equity securities, and the quantitative decision making rules utilized in corporate capital budgeting analysis. **Prerequisites:** ACCTNG 5501.

FIN 5504 Managerial Economics Credit: 1.5
This course applies microeconomic principles to for-profit and not-for-profit enterprises. Topics include: supply, demand, elasticity, equilibrium, cost and production theory, factor pricing, market structure and pricing and public policy toward business.

FIN 5505 Global Macroeconomics Credit: 1.5
Global Macroeconomics examines fiscal and monetary policies in the US as well as other countries. It considers issues of international trade, exchange rates and coordination of economic policies as well as economic integration and fiscal and financial crisis management.

FIN 5507 Corporate Financial Management II Credit: 1.5
This course provides a continuation of the study of corporate financial management principles introduced in FIN 5502. Specific topics covered in this course include the study of detailed corporate capital budgeting problems, the fundamental risk versus return paradigm encountered in financial markets, the Capital Asset Pricing Model, and the cost of investment capital for a business enterprise.

FIN 5509 Financial Management Credits: 3
An introduction to the role of financial management through the development of a conceptual framework appropriate for financial decision making. Generally, financial management is charged with the responsibility for obtaining and effectively utilizing the funds necessary for the operation of an enterprise. As such, the conceptual framework includes elements of financial planning (financial analysis, cash budgeting and profit planning), capital budgeting (rate of return and cost of capital), and basic considerations of alternative sources of funds. **Prerequisites:** Student must be enrolled in a Bloch School graduate program.

FIN 5515 Managerial Economics Credits: 2
This course studies the relationships between the economic theory and system as a whole and the ways in which their functioning is affected by the behavior of the interdependent sectors of which they are composed. Students will explore the major factors and determinants of economic prospects relevant to profit-maximizing production and pricing decisions for the firm. **Prerequisites:** admission to executive MBA program.

FIN 5532 Financial Management Credits: 3
An introduction to the role of financial management through the development of a conceptual framework appropriate for financial decision making. Generally, financial management is charged with the responsibility for obtaining and effectively utilizing the funds necessary for the operation of an enterprise. As such, the conceptual framework includes elements of financial planning (financial analysis, cash budgeting and profit planning), capital budgeting (rate of return and cost of capital), and basic considerations of alternative sources of funds. **Prerequisites:** ACCTNG 5517, DSOM 5508, and FIN 5501 (or equivalents).

FIN 5534 Thinking Critically: The Role of Incentives and Human Behavior Credits: 2
An overview of the economics of rational decision-making drawing on recent developments in behavioral economics and theory. Students learn how human beings make decisions in the presence of uncertainty, limited information and the crucial role of human resourcefulness, incentives, and trade-offs in predicting the ultimate effects of decision-making outcomes.

FIN 5535 Contemporary Techniques of Financial Analysis Credits: 2
Students learn to effectively analyze crucial financial decisions involving asset allocation and valuation. Time value of money, capital budgeting techniques, cash flow estimation, risk and return, and the calculation of a company's cost-of-capital are taught through hands-on analysis of real-world problems.

FIN 5536 The New Corporate Finance: Where Theory Meets Practice Credits: 2
Focusing on critical developments in finance theory and practice from an upper-level or “boardroom” perspective. Emphasis is on the critical financial decisions made at the highest levels of an enterprise such as agency conflicts, signaling theory, derivatives, and capital structure and dividend decisions.

FIN 5537 Enterprise Risk Management Credits: 3
Students conduct a comprehensive assessment of the physical, reputation, emotional, financial, and facilities risks associated with an organization and its events. They must also assess each risk based on its probability of occurrence and severity of consequences and make decisions about accepting, modifying, transferring, and/or eliminating risks based on those assessments. **Prerequisites:** FIN 5532.

FIN 5550 Advanced Financial Management Theory And Policies Credits: 3
Advanced financial management covering topics such as working capital, financial structure, cost of capital, dividend policy and valuation. Discussions include both financial theory as well as financial policy. Includes exposure to literature central to the development of finance theory. **Prerequisites:** Six hours of finance coursework beyond FIN 5532 (or equivalent).
FIN 5551 International Financial Management Credits: 3
This course analyzes present and future international financial market conditions and extends the decision-making tasks of financial management into the context of problems of the international and foreign financial systems. The financial constraints of the international business environment and their effect on standard concepts of financial management are studied along with international currency flows, capital structure problems, working capital management, foreign investment, and international banking practices.
Prerequisites: FIN 5532 (or equivalent).

FIN 5552 Global Financial Markets and Institutions Credits: 3
Students are introduced to global financial markets and institutions. Topics include equity, debt, commodity, housing, and foreign exchange markets both in the U.S. and globally. The course explores the effects of monetary and fiscal policy, with emphasis on past and current global financial crises, financial restructuring and reforms, as well as the interrelationships between financial and real economies.
Prerequisites: FIN 5552 (or equivalent).

FIN 5553 Investment Analysis Credits: 3
Development of a theoretical framework applicable to the solution of problems related to creation and management of the investment portfolio. Consideration is given to the analysis of risk, functions of security markets, sources of information, evaluation of securities, and measurement of investment return.
Prerequisites: FIN 5552 (or equivalent).

FIN 5556 Management Of Financial Intermediaries Credits: 3
This course addresses the management operations of selected financial intermediaries including commercial banks and thrift institutions. Attention is given to asset-liability structure, the development and delivery of financial services, institutional structure, legal and regulatory factors, and the dynamics of the competitive environment.
Prerequisites: FIN 5552 (or equivalent).

FIN 5557 Derivative Securities Credits: 3
This course is designed to introduce students to the basic principles of financial risk management. The student should develop a working knowledge of issues regarding both the theoretical valuation and application of derivative securities. Applications will focus on techniques designed to manage financial risks in the corporate environment. Specifically, the course will focus on using futures, options, and swaps to hedge financial risks. Valuation issues will be explored to identify theoretical pricing fundamentals that can be applied toward valuing newly developed securities.
Prerequisites: FIN 5501, FIN 5532, DSOM 5508, and ACCTNG 5517, or equivalents.

FIN 5560 Financial Modeling Credits: 3
The primary objective of this course is to introduce students to some of the fundamental quantitative methods used in investment analysis. The student should develop a working knowledge of measuring risk and return, probability theory, sampling and estimation, hypothesis testing, correlation analysis, regression and time series analysis, The course will emphasize experimental learning by applying these concepts to real data in a spreadsheet environment.
Prerequisites: Completion of introductory coursework in accounting, economics, statistics and finance.

FIN 5561 Financial Statement Analysis Credits: 3
Students will take an in-depth look at the external financial statements that are prepared by corporations, including the tools needed to organize, summarize, and understand corporate financial data for use in decision making. Ratio analysis, trend analysis, earnings forecasting, bankruptcy predictors statistical methods important to finance, and financial data bases are among the topics that will be covered.
Prerequisites: Completion of introductory coursework in accounting, economics, statistics, and finance.

FIN 5562 Fixed Income Analysis Credits: 3
The primary objective of this course is to provide an overall view of the role of debt markets in the modern economy. The course will cover the characteristics of instruments traded in money and capital markets; determinants of and the relationships between different security prices; and international aspects of financial markets. Topics include: valuing fixed income securities, managing interest rate risk, interest rate theory, the organization of bond markets and the structure and pricing theory underlying the mortgage-related fixed income market.
Prerequisites: Graduate standing in the Bloch School, FIN 5502 (or equivalent).
FIN 5563 Valuation/Mergers and Acquisitions Credits: 3
The primary objective of this course is to introduce students to techniques used to value both exchange-traded and private firms. Students should apply these techniques to cases involving mergers and acquisitions, initial public offerings private firm valuation and the valuation of a publicly traded stock.
Prerequisites: completion of introductory coursework in accounting, economics, statistics and finance.

FIN 5564 Portfolio Management Credits: 3
The primary objective of this course is to introduce students to some of the fundamental portfolio management tools used by practicing investment professionals. The student should develop a working knowledge of issues regarding portfolio construction, asset allocation, mean-variance optimization, performance measurement, and client relationship management.
Prerequisites: completion of introductory coursework in accounting, economics, statistics and finance.

FIN 5565 Alternative Investments Credits: 3
The primary objective of this course is to introduce students to investing in alternative assets. The student should develop a working knowledge of various types of alternative investments and how they impact the risk-return profile of a portfolio. The course will cover investments in hedge funds, private equity, real estate, commodities, real assets, energy, and infrastructure.
Prerequisites: completion of introductory coursework in accounting, economics, statistics and finance.

FIN 5566 Financial Plan Development Credits: 3
Personal financial planning differs for each of us for a variety of reasons including age, family, wealth, needs, income, and personalities to name a few. Nonetheless the tax, financial, and risk environments which inspire us to set goals are similar for all of us. Financial planners must take all of these financial and nonfinancial factors into consideration as they devise a plan for their clients. Our objectives, therefore, are to study the personal financial planning process and environment, examine the questions of financial planning, learn financial planning techniques, and develop the ability to prepare integrated financial plans for our clients.

FIN 5567 Payment Systems Credits: 3
Payment systems are central to modern economies, underpinning nearly all economic exchange among consumers, businesses, and government entities. Payment systems in the U.S. have undergone fundamental changes recently. yet, these systems are among the least studied and least understood components of our economy. The purpose of this course is to provide an in-depth knowledge of U.S. payment systems and an analytical framework for evaluating and responding to ongoing changes in the payments landscape.

FIN 5568 Organizational Finance Credits: 2
Gives students a thorough introduction to financial management that blends appropriate amounts of relevant theory with practical application. Topics include discounting techniques and applications, evaluating capital expenditures, estimating cost of capital, and valuing stocks and bonds.
Prerequisites: Admission to the Executive MBA program.

FIN 5570 Introduction to Personal Financial Planning Credits: 3
Personal financial planning differs for each of us for a variety of reasons including age, family, wealth, needs, income, and personalities to name a few. Nonetheless the tax, financial, and risk environments which inspire us to set goals are similar for all of us. Financial planners must take all of these financial and nonfinancial factors into consideration as they devise a plan for their clients. Our objectives, therefore, are to study the personal financial planning process and environment, examine the questions of financial planning, learn financial planning techniques, and develop the ability to prepare integrated financial plans for our clients.

FIN 5571 Retirement Planning and Employee Benefits Credits: 3
A study of retirement and employee benefits planning, with consideration of Social Security and Medicare planning.
Prerequisites: FIN 5570 or equivalent.

FIN 5572 Income Tax Planning Credits: 3
A study of taxation, with an emphasis on federal, state, and local income taxation, as part of the financial planning process.

FIN 5573 Estate Planning Credits: 3
This course applies the principles of estate planning to real-world situations using the Internal Revenue Code and Regulations and develops strategic decision making skills in the estate, gift, and trust areas.

FIN 5574 Student Investment Fund I Credit: 1.5
In the first semester, students will help actively manage our student investment fund portfolio and will be responsible for analyzing the investment policy statement, generating performance reports and identifying assets to recommend for the portfolio. During this time students will act as industry analysts for specific portions of the portfolio.
Prerequisites: FIN 5553

FIN 5575 Student Investment Fund II Credit: 1.5
In the second semester, students will take a leadership role in managing our student investment fund portfolio and will be responsible for updating the investment policy statement, presenting performance reports and evaluating asset recommendations for the portfolio. In addition, students will actively participate in researching potential new investments.
Prerequisites: FIN 5574
FIN 5576 Fundamentals of Fintech Credits: 3
This course will introduce students to Fintech and provide an overview of the main areas in which it is disrupting finance. These areas include lending and equity investment (algorithmic lending, P2P lending and crowdfunding platforms); financial market infrastructure (cryptocurrencies, blockchain technology, smart contracts); portfolio management and financial advice (robo-investment); and financial trading (algorithmic trading, digital trading platforms). Students will learn how the new financial technologies work, how incumbents and new entrants might profit from the technologies, and how the technologies could affect the efficiency, accessibility, fairness, and security of the financial system.
Prerequisites: FIN 5532.

FIN 5580 Organizational Valuation & Financial Modeling I Credits: 2
This course will cover the concept of risk and reward and that to eliminate risk is to eliminate reward. We will delve into how management considers the entity’s risk appetite in evaluating strategic alternatives, setting related objectives and developing mechanisms to manage related risks.
Prerequisites: Admission to Executive MBA program.

FIN 5582 Seminar In Finance Credits: 3
Advanced work in financial management, investment analysis, and financial markets and institutions will form the basis for the Seminar. Each topic selected will provide the opportunity for an investigative study on the part of the student. Major problems, hypotheses, and cases, together with the literature addressing the specific topic, will serve as the springboard for classroom activity. Both written and oral reports are required.
Prerequisites: FIN 5532 (or equivalent).

FIN 5587 Special Topics Credits: 3
Special topics in finance.

FIN 5595 Internship Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community.

FIN 5597 Independent Study Credits: 1-6
Independent study and research in areas of special interest under individual faculty direction.

FIN 5899 Required Graduate Enrollment Credit: 1

Health Administration Courses
HLTH-ADM 5551 Leadership and Strategy in Healthcare Credits: 3
This course provides an overview of major leadership and strategic issues in healthcare organizations in the areas of: 1) leadership and organizational dynamics, 2) strategic thinking and planning, 3) population health and health policy, 4) human resources, 5) performance management, and 6) organizational ethics. The course is eligible for inclusion in the Executive MBA program.
Prerequisites: Instructor approval required.

HLTH-ADM 5552 Managing Healthcare Organizations Credits: 3
This course provides an overview of major issues and essential tools in managing healthcare organizations in the areas of: 1) legal and regulatory issues that confront a healthcare organization, 2) healthcare quality and data analysis, 3) patient safety, 4) risk management, 5) process management, 6) healthcare economics, 7) cost and comparative effectiveness, 8) fundamental principles of financial management. The course is eligible for inclusion in the Executive MBA program.
Prerequisites: Instructor approval required.

HLTH-ADM 5571 Financial Management Issues: Health & Human Services Organizations Credits: 3
This course is intended to provide an overview of the financial management problems of health and human services organizations. A broad range of topics is examined: financial statements, ratio analysis, cost accounting, reimbursement and pricing, management of working capital, budgeting and programming, capital financing, and cash management. The course is eligible for inclusion in the Executive MBA program.
Prerequisites: Instructor approval required.

HLTH-ADM 5572 Quality and Safety in Healthcare Credits: 3
Overview of the quality, safety, and process management concepts, approaches, and issues relevant to healthcare delivery settings, including use of analytical techniques used to identify and mitigate contributing factors and process management tools that enable healthcare organizations to achieve their quality and safety goals.

HLTH-ADM 5573 Health and Social Equity Credits: 3
Examines the complex relationship between the social and political environment and health outcomes. All policy is health policy — economic, transportation, natural and built environments, schools. This course examines how social equity shapes health behaviors and how the life odds in different communities expose the historical legacies of past injustices. Only ten percent of health disparities are explained by access to care, although health care and health insurance dominate the public conversation. Draws on guest speakers, books, journal articles, popular press, film and art; as varied as are the social determinants of health, so are media that explore those relationships.

HLTH-ADM 5577 Health Service Administration And The Health Professions Credits: 3
The development of the health professions and occupations is examined as their internal and external relationships influence the structure of health care organizations and the services provided to clients. The focus of the course is on problems that administrators may encounter as they attempt to negotiate services for clients, build professional coalitions, and provide leadership within or outside health care institutions.
HLTH-ADM 5578 The Evaluation And Control Of Health Services Credits: 3
This course focuses on developing evaluative skills associated with controlling the level and costs of health services. Epidemiologic concepts are introduced using clinical and community health examples. The concepts of “at-risk” clients and populations are reviewed, and various attempts to measure risk are assessed. Issues relating to quality assurance are discussed, along with several examples of cost-effectiveness analysis.

HLTH-ADM 5580 Economics of Health and Medicine Credits: 3
A course designed to discuss economic analysis of the development of the medical market, organized medicine and the structure of the health delivery systems. The problems of the medical market will be analyzed, the role of insurance will be investigated and alternative public policies will be studied.

HLTH-ADM 5581 Health Policy in the United States Credits: 3
This course helps students develop an understanding of the determinants of health, major current health policy issues, and health policy making in the United States. The public policy process and its effects on the organization, financing, and delivery of health care are examined in detail. The roles of key players in health policy formulation and the public policy responses to current health policy are also examined.

HLTH-ADM 5586 Independent Study Credits: 1-6
Independent study and research in areas of special interest under individual faculty direction.

HLTH-ADM 5587 Special Topics Credits: 3
This course is designed to facilitate one of two purposes: an initial offering of a new course (prior to formal approval) or an initial and possible only offering of new topics.

HLTH-ADM 5595 Internship Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community.

Management Courses

MGT 100 Foundations of Business Credits: 3
Provides an introduction to the functional areas of business (e.g., accounting, systems, finance, marketing, human resources, and entrepreneurship) as well as a number of contemporary business topics, including social responsibility, diversity, ethics, and globalization. Additionally, students will be exposed to various topics that facilitate a successful transition from high school to college. Examples include an overview of University and Bloch School resources, development of effective study habits, time and stress management, selection of a major and career options.

MGT 301 Effective Business Communication Credits: 3
The instructor introduces students to the strategic nature of business communication. By the end of the course, students should be able to analyze business situations, prepare messages that fulfill the intended purpose of their communication, and meet the needs and expectations of business audiences. Students will develop the tools to deliver effective, professional written and oral communications, and will learn how to use library and electronic business research tools.
Prerequisites: ENGLISH 225 (or equivalent) or DISC 200; RooWriter.

MGT 301A Effective Business Communication for Non-Native Speakers Credits: 3
Students will learn the strategic nature of business communication with a focus on building English language skills and understanding U.S. business terminology and culture. By the end of the course, students should be able to analyze business situations, prepare messages that fulfill the intended purpose of their communication, and meet the needs and expectations of business audiences. Students will develop the tools to deliver effective, professional written and oral communications, in addition to cultivating their English language abilities in the business environment.
Prerequisites: ENGLISH 225 (or equivalent) or DISC 200; RooWriter.

MGT 306 Legal, Ethical And Regulatory Environment Of Business Credits: 3
The course looks at legal and moral thought, with attention to ethical issues in business. Students are introduced to our common law system; selected areas of law, with attention to the inclusion of cultural and moral values; and an introduction to government regulation of business.
Prerequisites: Bloch or BIT student with sophomore standing.

MGT 320 Law Of Commercial Transactions Credits: 3
Study of major areas of law included in the Uniform Commercial Code. Topics may include sales, commercial paper, bank deposits and collections, aspects of property law, documents of title, investment securities, and secured transactions.
Prerequisites: MGT 306.

MGT 330 Understanding the Individual in the Organization Credits: 3
This course explores the micro dynamics of organizations: the individual and his/her relationship to other people, teams, and work groups. Topics will include: individual traits, behaviors, and skills for effective performance; self-assessment and professional development; staffing; motivation; individual and group dynamics; multicultural understanding and diversity; and ethical decision making.
Prerequisites: MGT 301 or MGT 301A or concurrent enrollment (for BBA and BSA students); Bloch minor or BIT student with sophomore standing.
MGT 337 Managing Human Capital Credits: 3
Building on prior coursework, this course will provide students with advanced human resource concepts and practices as well as practical experience in how human resources should be managed in successful businesses. Student groups will work with a local organization to diagnose, analyze, and make recommendations regarding effective programs in staffing, developing, rewarding, motivating, and managing its personnel.
Prerequisites: MGT 330.

MGT 355 Organizational Effectiveness and Leadership Credits: 3
Students will study the macro dynamics of organizations: broad knowledge of how organizations work and the various ethical means of impacting outcomes. Topics will include: structure, culture, and politics of organizations; human resources and linkages to organizational culture and success; organization influence and political savvy; managing change and learning in a global context; organizational governance, codes of conduct, and internal controls; the role of business in society; and various professional development issues.
Prerequisites: MGT 330.

MGT 360 Groups and Teams Credits: 3
Teamwork has become increasingly popular in many organizations. Whether formally integrated into the organizational structure, or temporarily created around specific projects, teams can be an important competency of organizations. They are considered an effective performance unit, and expected to efficiently cope with the fast changes and demands of today's business environment. Attaining the full advantages from teamwork requires effective management of team processes and dynamics. This course focuses on issues in team development, internal processes, and members' behavior, as well as management skills needed to effectively lead teams in organizations.

MGT 365 Managing in a Virtual Environment Credits: 3
This course builds on the fundamentals of individual and group behavior to emphasize how organizational design and management practices have been dramatically affected by the proliferation of social media and other internet technologies. Students examine cases and engage in virtual exercises to experience ethical and mindful ways to engage in the virtual environment. Virtual-appropriate variations of interaction, collaboration, conflict management, decision-making, problem-solving, and leadership are introduced. Students also examine geographic and cultural issues potentially encountered in a global virtual organization.
Prerequisites: MGT 330.

MGT 370 International Management Credits: 3
Students receive an introduction to management in an international environment, addressing the management functions and behaviors necessary to develop global vision and management skills at a strategic (macro) and interpersonal (micro) level. Cross-cultural management and competitive strategy are evaluated in the context of global changes.

MGT 375 Global Mindset for Managers Credits: 3
Students receive an in-depth look at the major geopolitical and cultural factors that have forged the international conflicts, relations, and identities that international business managers should thoroughly comprehend to effectively navigate cross-border ventures. In-depth regional and country business and cultural profiles will be investigated to provide students with multiple contrasting perspectives to their own upbringing or sense of identity (a global mindset), allowing them to better sympathize, communicate, and collaborate when working in cross-cultural business environments.

MGT 470 International Study in Business Credits: 3-6
This course is designed to provide a study-abroad experience for the student. The course involves three components: study of international business through on-campus lectures and discussions; travel to a foreign country for visitations to business firms, government organizations, and cultural sites; and critique sessions of the international learning experience after travel completion.
Prerequisites: special application and selection process.

MGT 471 Strategic Management Credits: 3
The study of business strategy concepts and application using case studies representing "real world" situations. The course stresses the formulation of business strategies to achieve organizational objectives using strategic analysis and models based upon external and internal assessments of the organization's environment.
Prerequisites: ACCTNG 211, DSOM 326 (or concurrent enrollment), FIN 325, MGT 330, and MKT 324.

MGT 487 Special Topics Credits: 3
Special topics in management.

MGT 490 The Professional Experience: Internship Credits: 3
This "experiential learning" course integrates a business internship opportunity with intensive study related to professional and leadership development. Students will work in a sponsoring organization for 15-20 hours per week and use this experience as a base to build professionalism and leadership. Working with a faculty member and a small cohort of peers in a seminar setting, students will explore ideas such as cultural observation, impression management and managing up, in order to enhance their effectiveness in a business environment and develop professional and leadership skills.

MGT 496 Internship: Management Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community. Internship coursework is evaluated on a credit/no credit basis.
MGT 497 Special Topics: Management Credits: 1-3
Study and research in areas of special interest under individual faculty direction.
Prerequisites: Departmental consent.

MGT 5501 International Business Environment Credit: 1.5
The aim of this course is to provide a broad introduction of the international business environment. Students will develop understanding of different economic, cultural political and legal environments affecting international business activities. They will further explore why international trade and government interventions occur among and across countries and how world financial institution have developed historically.

MGT 5502 Leadership in Organizations Credit: 1.5
This course focuses on how organizations work and how leaders can help them work better. Its goal is to provide ideas, tools, and tactics that will help students become more effective leaders. The course is designed to challenge students conceptually through readings, discussions, and developmental assessments, and to challenge at the level of self-awareness and action through teamwork, reflective activities, role plays, case applications, ad "leadership challenges".

MGT 5503 Leadership Residency Credits: 3
This course introduces students to fundamentals of business and effective leadership practice by looking at two different academic areas. Team and Community Building focuses on the fundamentals of collaborative teamwork and basic concepts in the program's leadership curriculum. The other area, Financial Decisions and Societal Goals, overviews approaches to management strategy rooted in financial modeling and analysis.
Prerequisites: Admission to Executive MBA Program.

MGT 5504 Immersion in Legal and Ethical Management of the Enterprise Credit: 1.5
This course will introduce students to some of the common legal and ethical issues that confront entrepreneurial businesses and non-profit organizations. Students will be exposed to the major differences between U.S. and international approaches regarding these issues. Working individually and in groups, students will be asked to solve problems regarding business formation, employment, intellectual property, contract formation and dispute resolution. Students will demonstrate their understanding by writing about real-world examples involving the legal and ethical concepts covered in the course.

MGT 5506 Contract Negotiation And Dispute Resolution Credits: 3
This course surveys the conceptual framework for negotiating legally binding contracts and examines contemporary institutions and processes for resolving contractual disputes. Particular attention will be given to identifying and appreciating strategies, practices, and specific rules by which binding contractual rights and duties are determined in the United States and in international jurisdictions. Working independently and in teams, students will assimilate the legal rules and negotiation strategies and apply them to common business transactions and disputes.

MGT 5507 Human Capital Management Credit: 1.5
This course seeks to provide managers with knowledge, skills, and resources to effectively manage human capital in organization of all sizes. It presents an overview of the theory, research, and practices used to strategically align HR policies and practices with the organization's overall business goals. The course highlights how HR policies and practices can support business objectives in a diverse, global environment while supporting ethical principles. Within a strategic HRM framework, functional areas of staffing, training and development, performance management, total rewards (compensation and benefits), and managing employment relationships are covered.

MGT 5509 Strategic Management Credit: 1.5
This course covers the classic and contemporary conceptual models in the Strategic Management domain. Students study, compare, and critique the models as they apply them to written, live, and videoed cases. The selected set of cases includes companies focused on both domestic and international markets.
Prerequisites: (FIN 5507, DSOM 5507, MKT 5501) OR admission to the Accelerated Professional MBA program.

MGT 5512 Leading and Managing People, Teams and Organizations Credits: 3
Leading and Managing People, Teams and Organizations focuses on how aspiring leaders can enhance their effectiveness by addressing the human side of enterprise. It combines an exploration of key leadership tasks (e.g. shaping vision and purpose, engaging and influencing others, and sustaining momentum) with the study of essential human resources practices including hiring, developing, motivating, and creating a positive, rewarding workplace. Students will leave with concrete tools for understanding the organizational context, managing human capital, and bringing the best out of talented people.
Prerequisites: Students must be enrolled in a Bloch School graduate program.

MGT 5513 Economic Policy And Managerial Control Credits: 3
Students will study the analysis of the industrial foundations and economic institutions of modern times; the politics of industrial control, including power relationships in economic nationalization and planning and theory of managerial industrialism and business enterprise.

MGT 5514 Strategic Management in the Globalized World Credits: 3
As the world has become increasingly integrated through globalization, today's business leaders must possess an awareness of global business environments and ability to navigate them. The aim of this course is to provide a broad introduction of the international business environment and strategic management concepts, and how a firm can gain competitive advantages. Upon completion of this course, students will possess an ability to recognize the opportunities and challenges and formulate strategies in the globalized business environment.
Prerequisites: Students must be enrolled in a Bloch School graduate program.
MGT 5516 Leading Teams Credits: 3
This course is designed to enhance the student's understanding of designing, forming, developing, leading, and evaluating high-performing teams in traditional and virtual organizations. In-class projects will facilitate students' assessment and application of their own talents to the arts of member selection, coaching, and trust building to engage team members in productive and ethical group processes to achieve successful outcomes. Cases will be used to diagnose and potentially solve team difficulties considering intra-team, organizational, and extra-organizational factors.
Prerequisites: MGT 5502 or PUB-ADM 5548 OR admission to Accelerated Professional MBA program.

MGT 5517 Leading Through Influence and Persuasion Credits: 3
This course challenges students to think about power dynamics in organizations and the array of influence approaches leaders develop and use to build support for their ideas and strategies. Using reading, case studies, and self-reflection tools, this course engages students in critical thinking about business scenarios that require a variety of leader influence strategies beyond traditional "command and control" approaches. Through exploration of concepts such as mapping the terrain, building social capital, and managing across, students develop a toolkit of ethical strategies for enhancing their organizational credibility and influence.
Prerequisites: MGT 5502 or MGT 5507.

MGT 5518 Leadership & Motivation Credits: 3
The course explores leadership as a relationship between leaders and those they are leading that enables people to work together in the service of shared goals. The course focuses on five basic tasks of leadership: (1) diagnosis—understanding what's happening; (2) shaping purpose and values; (3) enlisting and engaging people (including coaching, building high-performance cultures, motivating and inspiring); (4) sustaining momentum; (5) reflection and assessment.

MGT 5519 Conflict Management and Negotiation Strategies Credits: 3
This course explores the nature of successfully managing conflict in organizational settings, as well as the skills needed to be an effective negotiator. In this course, students will learn the difference between functional and dysfunctional conflict, how to stimulate functional conflict, various styles for managing conflict, ways to identify the desired outcomes of conflict, how to prepare for negotiations, various dispute resolution techniques, and the characteristics of effective negotiators. The course uses a variety of tools—readings, case studies, videos, and guest speakers—to engage students in real business scenarios related to managing conflict and negotiation strategies.
Prerequisites: MGT 5502 or MGT 5507.

MGT 5531 Leadership, Strategy and Human Resources Credits: 2
Focuses on the leader as a catalyst in developing high-performance, market-based cultures and as a human resource strategist in marshalling the workforce. Gearied to the general manager, the course presents ideas and tools for building, bonding, and linking the workforce to accomplish the organization’s mission. Topics include ideas and tools for identifying, recruiting, and retaining talent; developing and coaching subordinates; appraising and rewarding performance; and delegating to balance control and risk.
Prerequisites: Admission to Executive MBA program.

MGT 5533 Leading and Managing Change Credits: 3
This course provides students with analytical skills and insights to more effectively manage and lead change, especially within those organizations characterized by complexity and/or uncertainty. Using a variety of vehicles—including case studies, articles, and speakers—the course engages students in timely, real change scenarios and associated management challenges, such as adaptation in changing markets; turnarounds in troubled businesses; integrative change in acquisitions, and process change in stable businesses.
Prerequisites: MGT 5502 OR MGT 5507.

MGT 5538 Strategic Management Credits: 2
The study of the formulation and evaluation of strategy, including industry analysis, strategic positioning, and the boundaries of the firm. Students address the capacity of executive leadership to create and communicate a clear direction for a company's future.
Prerequisites: Admission to the Executive MBA Program.

MGT 5539 Managing a Complex Workforce Credits: 2
Students learn innovative strategies and tactics to attract, motivate, manage, and retain the critical human capital necessary for organizations to compete in a fast-paced, global economy.

MGT 5540 Business Law and Commercialization Credits: 2
Students learn some of the common legal and ethical issues that confront entrepreneurial businesses and non-profit organizations. The major differences between U.S. and international approaches regarding these issues will be discussed. Working individually and in groups, students will solve problems regarding business formation, employment, intellectual property, contract formation and dispute resolution.

MGT 5541 Strategic Leadership and Decision Making Credits: 2
Students will assess organizational issues and needs through multiple perspectives and develop incisive decisions and actions that reflect complex and changing circumstances and that recognize broad social consequences. Using best-practice frameworks, case applications, and reflective activities, students build a toolkit of innovative approaches to the core work of leadership: setting direction, marshaling resources, and inspiring support.
MGT 5542 Global Immersion Capstone Experience Credits: 2
Students develop cultural intelligence and in-depth knowledge of the relevant economic, political, and social climates of an international region. Drawing on the themes of innovation, social responsibility, and organizational entrepreneurship, students design and complete projects investigating key issues and providing recommendations. Students also organize and plan international travel under the supervision and guidance of a faculty adviser.

MGT 5543 Strategic Management Credits: 2
Stresses the formation of business strategies to achieve organizational objectives using strategic analysis and models based upon external and internal assessment of the organization’s environment. Incorporates a variety of pedagogical approaches including cases and articles, class exercises and discussion, and experiential learning activities, as well as the completion and presentation of a comprehensive case analysis or project capstone. **Prerequisites:** Admission to the Full-Time MBA program.

MGT 5545 International Management Credits: 3
Examination of the management of contemporary international business organizations through a study of the political, economic, social and technological factors and their relationship and impact upon the administrative activities and strategies of the international firm.

MGT 5546 Seminar in International Management Credits: 3
This course focuses on the issues that business organizations face in a global economy. The instructor will introduce global strategic decisions via case studies. **Prerequisites:** MGT 5545.

MGT 5547 Global Initiatives in Management Credits: 3
Examines the management of contemporary international business organizations in the global economy. The course overviews the interrelationship and impact of political, economic, social, and technological factors, together with the complex challenges of strategy and execution in global companies. It includes a period of international residency. **Prerequisite:** Admission to the Executive MBA program

MGT 5552 International Study in Business Credits: 3
This course is designed to provide a study-abroad experience for the student. The course involves three components: study of international business through on-campus lectures and discussions; travel to a foreign country for visitations to business firms, government organizations, and cultural sites; and critique sessions of the international learning experience after travel completion. **Prerequisites:** special application and selection process.

MGT 5557 Leadership And Organizations Credits: 2
Focuses on how organizations work and how leaders can set direction, marshal resources, and build support to move initiatives forward. The course provides tools and tactics for assessing organizations needs and constraints through multiple lenses, and assessing one's own leadership strengths and weaknesses for development and alignment with organization needs. **Prerequisites:** Admission to Executive MBA Program.

MGT 5566 Attracting, Retaining, and Developing Human Capital Credits: 3
This course presents theoretical frameworks and practical applications for determining optimal person-organization fit and person-job fit within organizations. Emphasis will be placed on integrating recruitment, selection, retention, and training and development strategies and practices with overall business strategies. The importance of strategically planning and implementing staffing and development processes will be addressed as critical contributors to organizational effectiveness and sustainability.

MGT 5567 Total Rewards Management Credits: 3
Total Rewards Management presents both theory and practice for designing effective rewards systems within organizations. The development of base pay and incentives and how they can be linked to performance will be covered. Characteristics of the work environment, such as recognition and development opportunities will also be considered in terms of their contribution to the total reward system.

MGT 5569 Leadership Accountability and the Legal Implications Credits: 2
Highlights the accountability of leaders and the challenges they face in the rapidly changing business environment. The course studies the political, social, ethical, and global environment in which American business organizations operate and the impact on today’s leaders. Topics include creating and maintaining affiliate relationships and joint ventures, as well as prohibitions in anti-competitive behavior, protection of intellectual property, operating within a regulated environment, and securities law. **Prerequisites:** Admission to Executive MBA Program.

MGT 5570 MBA Capstone-Global Management Consultancy Credits: 3
An integrative global management consulting experience for a real world organization that applies analytical skills in the areas of finance, marketing, information systems, supply chain management, human resources, leadership, innovation, international, and strategy. Course deliverables include written and oral reports for the client organization. The course requires travel to visit client organization's operations. **Prerequisites:** MBA students must have completed all required core courses AND be in the last year of their program. MSA, MPA, MSF, MSERE, or MSGE program students may enroll with consent of instructor. Special application and selection process.
MGT 5571 Influence, Persuasion and Change Credits: 2
Presents ideas, strategies, and tools for leading change in complex organizations. This course challenges students to think about the execution of change strategies through assessment or organizational power dynamics and appropriate influence styles for achieving results. Emphasis is placed on analyzing these attributes and skills most critical for building influence, especially in change initiatives, and on defining an ethical approach to leading, influencing, and persuading others.

Prerequisites: Admission to the Executive MBA program.

MGT 5572 MBA Capstone-The Capstone Consulting Project Credits: 3
An integrative management consulting experience for a real world organization that requires application of conceptual models and analytical skills in multiple disciplines including areas such as finance, marketing, information systems, supply chain management, human resources, leadership innovation, international, and strategy. Course deliverables include written and oral reports for the client organization. The course requires interaction with senior managers in the client organization with anticipation of in-person or virtual visits to the firm.

Prerequisites: MBA students must have completed all required core courses AND be in the last year of their program. MSA, MPA, MSF, MSERE, or MSGE program students may enroll with consent of instructor.

MGT 5574 MBA Capstone-Leading and Managing Change Credits: 3
This course challenges students to apply concepts and models of leadership and strategy to timely, real-world issues and problems across business and functional areas in organizations. Using readings, class discussion, field-based leadership projects, and peer consulting, the course will emphasize the integrating perspective of the general manager and will explore cross-functional vision, decision-making, and execution for leadership effectiveness.

Prerequisites: MBA students must have completed all required core courses AND be in the last year of their program. MSA, MPA, MSF, MSERE, or MSGE program students may enroll with consent of instructor.

MGT 5575 Integrated Business Strategies (Capstone) Credits: 2
Integrates the disciplines of business to help the student develop a comprehensive understanding of business planning and strategy. Students will use cases and simulation to plan and test alternative business strategies in a competitive environment. The course examines the critical factors involved in strategic decision making.

Prerequisites: Admission to the MBA Program.

MGT 5577 Special Topics Credits: 3
The study of a contemporary management topic of interest.

MGT 5595 Internship Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community. Internship coursework is evaluated on a credit/no credit basis.

MGT 5597 Independent Study Credits: 1-6
Independent study and research in areas of special interest under individual faculty direction.

MGT 5899 Required Graduate Enrollment Credit: 1

Management Information Systems Courses
MIS 202 Computer Applications In Management Credits: 3
A comprehensive coverage of computer tools for personal productivity in a management context, including spreadsheets and databases.

Prerequisites: MATH 110.

MIS 402 Information Management Credits: 3
This course introduces students to the impact of information technologies and systems on the enterprise. Business Intelligence and decision support capabilities are explored as well.

Prerequisites: MIS 202, STAT 235.

MIS 415 Managing the Information Systems Resource Credits: 3
All organizations today have information systems, and managing the related resources (systems personnel, software applications, databases, networks, computing hardware) is a necessary skill for many employees. This course is aimed at developing the non-technical skills that business-school graduates need to make appropriate decisions about the deployment of information systems throughout the firm.

Prerequisites: MIS 202 and six hours of business school courses at the 300-level or above.

MIS 487 Special Topics Credits: 3
Special topics in management information systems.

MIS 496 Internship: Management Information Systems Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community. Internship coursework is evaluated on a credit/no credit basis.

MIS 497 Special Topics: Management Information Systems Credits: 1-3
Study and research in areas of special interest under individual faculty direction.

Prerequisites: Departmental consent.
MIS 5503 Management Information Systems Credit: 1.5
A survey of topics concerning information technology management in the twenty-first century. The course examines information technologies as they influence the structure and processes of organizations, and economies, and as they influence the roles and techniques of management.

MIS 5507 Business Analytics and Statistics Credits: 3
Business Analytics is about the science and the art of using data for making well-informed business decisions. The course covers the techniques used for acquiring and preparing data, as well as various statistical methods and procedures for mining the data to identify and infer patterns, relationships, and trends. It discusses how these methods can be used by managers for descriptive, predictive, and prescriptive purposes. Upon the successful completion of this course, the student will have the knowledge and the hands-on skills to apply business analytics techniques to various business contexts.

Prerequisites: Students must be enrolled in a Bloch School graduate program.

MIS 5523 Technology and Analytics Credits: 2
Students study information technology in support of analytical processing in the modern organization. Databases, data warehouses, data mining, data integrity, decision support, and knowledge management applications will be covered.

MIS 5529 Decision Support Systems Credits: 3
Information systems to support decision makers in organizations. This course focuses on influences of cognitive biases and group think on decision makers. Identification of both potential uses of information technology to support decision makers and potential effects of information technology on the decision making processes, and may include a number of computer-oriented assignments.

MIS 5540 Information Technology as a Strategic Tool Credits: 2
This course examines the critical linkage between an organization's business, cultural, and information technology (IT) strategies. In organizations today, information technology has become a key component in accomplishing strategic and operational goals. The course provides concepts and a framework for understanding and enhancing the role IT can play in innovation, change, and continuous organizational learning.

Prerequisites: Admission to the Executive MBA program.

MIS 5552 Data Base Management Credits: 3
Data administration, including theory of relational databases and projects using relational data management packages. The course looks at data modeling and information engineering, entity-relationship modeling, database design, normalization, data dictionaries, distributed databases, database servers, data quality assurance, data integrity, SQL, and may include a number of computer-oriented assignments.

MIS 5554 Systems Analysis, Design And Engineering Credits: 3
This course introduces tools for documenting information system requirements and design and implementation methods; organization of software projects; system specifications, documentation and diagramming standards; programming languages and methodology; costs and schedule estimation, project management; program verification, and internal control issues.

MIS 5558 Management of Information Technology Credits: 3
Topics to be covered include procurement and management of computer systems, economics of hardware and software, software acquisition, RFQs, RFPs, contract terms and conditions, end-user computing, capacity planning, contribution of computing to business objectives, control, audit, and security of information technology; legal and ethical perspectives; and international issues.

MIS 5587 Special Topics Credits: 3
Special topics in management information systems.

MIS 5597 Independent Study Credits: 1-6
Independent study and research in areas of special interest under individual faculty direction.

MIS 5899 Required Graduate Enrollment Credit: 1

Marketing Courses

MKT 324 Marketing Concepts Credits: 3
The course focuses on the processes involved in the marketing of goods and services, including the meaning and importance of marketing terminology, the marketing mix, the marketing concept, consumerism, market segmentation, market and marketing research, and the impacts of different competitive structures on marketing decision making.

Prerequisites: Bloch or BIT student with sophomore standing.

MKT 335 Consumer Behavior in Marketing Credits: 3
This course draws upon findings from various disciplines including cognitive psychology, social psychology, sociology, economics, and anthropology to understand and predict buying behavior. Structured around applications in marketing strategy, topical coverage includes motivation, perception, attitude change, choice decisions and the consumption process, as well as post-purchase satisfaction.

Prerequisites: MKT 324.
MKT 348 Market Analysis Credits: 3
Market Analysis is designed to systematically introduce you to the most commonly used tools and techniques used to arrive at major business decisions from a consumer/customer perspective. The course emphasizes analysis of data using statistical software. Students will be taught to use designated software to analyze data to address real-world marketing problems. The course covers analysis of revealed consumer behavior, choice, market adoption, perceptions, and preferences.
**Prerequisites:** DSOM 309 (or concurrent enrollment), MKT 324.

MKT 418 Sales and Promotion Strategies Credits: 3
Students receive exposure to the planning, implementation, and evaluation of various revenue-generating and promotional strategies. Topics covered will include the analysis of customers, competitors, and product markets; market segmentation; product positioning; media planning; promotional effectiveness; and client-agency relationships.
**Prerequisites:** MKT 324.

MKT 420 Sales Management Credits: 3
This course examines the strategic management of the boundary-spanning function of the organization, the sales force. Topics include the selling process, customer relationship management, organizing the sales effort, utilizing sales force automation technology, understanding the salesperson’s role, selecting appropriate salespeople, motivating the sales force, conducting training programs, and evaluating the efficacy of individual salespeople and the overall sales function.
**Prerequisites:** MKT 324

MKT 442 Internet/Direct Marketing Credits: 3
This course examines internet and direct marketing as these topics relate to marketing strategy and the overall marketing plan. Coverage will include topics such as website traffic, customer relationship management (CRM), email marketing, podcasts, blogs, social media, online video, online advertising, online marketing research, and other strategies and tactics for customer acquisition, retention, and add-on selling.
**Prerequisites:** MKT 324.

MKT 465 Introduction to Retailing and Pricing Credits: 3
This course presents an approach to retail and pricing management. Topics covered in the course include: retail strategy development, understanding the customer, retail information systems, market location selection, merchandise buying and handling, financial operations management, human resource management, operations management, store layout and design, laws ethics, and retail tactics.
**Prerequisites:** MKT 324

MKT 476 Services Marketing Credits: 3
The purpose of this course is to show how the marketing of services differs from the marketing of goods. Additionally, students will learn the relationship between service quality and customer satisfaction, how to understand and assess service expectations, and how to match those expectations with company standards.
**Prerequisites:** MKT 324.

MKT 480 Marketing Strategy Credits: 3
Marketing Strategy is the capstone course in the marketing curriculum. The intent of this course is to review and integrate the important concepts you have learned in your other marketing and general business classes into a unified whole. This class is very intensive as well as interactive.
**Prerequisites:** MKT 335, MKT 348 (or concurrent enrollment).

MKT 487 Special Topics Credits: 3
Special topics in marketing.

MKT 496 Internship: Marketing Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community. Internship coursework is evaluated on a credit/no credit basis.

MKT 497 Special Topics: Marketing Credits: 1-3
Study and research in areas of special interest under individual faculty direction.
**Prerequisite:** Departmental consent.

MKT 5501 Marketing Management Credit: 1.5
This course goes beyond the explanation of basic concepts of marketing. The goal is to present a strategic and integrative perspective of marketing in the contemporary digital, global and competitive marketing environment. The emphasis is on the interface between an organization’s objectives, capabilities, resources and marketplace needs and opportunities. Examples of major topics to be covered are market-oriented philosophy and corresponding strategy, customer relationship management, branding and brand equity, services marketing, marketing ethics, defensive and offensive marketing strategies, product positioning, distribution and pricing strategies.
MKT 5504 Marketing Management Credits: 3
The course presents concepts of marketing, describes marketing strategy, and defines marketing tactics. Marketing law, fiduciary responsibilities, and marketing ethics for executives impacted by marketing success are identified. The goal is to present a strategic and integrative perspective of marketing in the contemporary digital, global and competitive marketing environment. The integration between an organization’s objectives, capabilities, resources and marketplace needs and opportunities is described. Examples of major topics to be covered are marketing philosophies and their corresponding strategies, technology-driven customer relationship management, branding and brand equity, services marketing, product positioning, distribution and pricing strategies, and implementation of marketing tactics in.
Prerequisites: Students must be enrolled in a Bloch School graduate program.

MKT 5531 Contemporary Marketing Management Credits: 3
An advanced survey course that emphasizes the core marketing decision variables: product, price, place, and promotion. The emphasis is on the interface between an organization’s objectives, capabilities, resources and marketplace needs and opportunities. The subject matter is applicable to firms that produce and/or services, and for-profit and non-profit organizations. Topics include market-oriented problem solving, consumer behavior, marketing ethics, competitive strategy, and product management in domestic and global environments.

MKT 5539 Digital (and Direct) Marketing Credits: 3
This course focuses on front-end and back-end marketing activities using digital as well as direct marketing tools. Major topics include developing an overall digital marketing strategy that includes inline and traditional media, online marketing, affiliate marketing, social media, web analytics and mobile marketing. The course also focuses on developing and maintaining relationships between the firm and customers and between the firm and other suppliers.
Prerequisites: MKT 5501 (or equivalent).

MKT 5543 Marketing Research and Decision Making Credits: 2
Market Research equips students to be intelligent users of market data for the purpose of decision making regarding the market mix and target marketing. The design of research projects, questionnaire design, sampling, data collection techniques, data analysis, and the presentation of results are covered.

MKT 5544 Marketing and Supply Chain Management Credits: 2
Students learn the processes involved in the marketing of goods and services, including the meaning and importance of marketing terminology, the marketing mix, the marketing concept, consumerism, market segmentation, market and marketing research, supply chain management and the impacts of different competitive structures on marketing decision making.

MKT 5555 International Marketing Credits: 3
This course focuses on marketing problems confronting international business managers and the ways they may be analyzed and resolved. The course content includes concepts and techniques useful in international marketing; effects of national differences on marketing practices; organization for international marketing; and strategy formulation for international markets.
Prerequisites: MKT 5501, MGT 5501 (or equivalent).

MKT 5560 Buyer Behavior Credits: 3
A review of behavioral science concepts applicable to an understanding of constituent decision making. Special emphasis is placed on applications of these concepts, by the student, to problems of offer planning, pricing, distribution and promotion.
Prerequisites: MKT 5501 (or equivalent).

MKT 5561 Promotional Strategies In Marketing Credits: 3
Emphasis will be placed on the organization’s persuasive communications to customers and prospective customers within a framework of the system of distribution. The central focus concerns how marketing management allocates the promotional mix within the organization’s total marketing program. Topics will include the following: 1) promotional mix, 2) campaign strategies, 3) campaign coordination and 4) follow-up control of promotional programs.
Prerequisites: MKT 5501 (or equivalent).

MKT 5562 Marketing Research Credits: 3
This course acquaints the student with the special problems of understanding and applying various measurement techniques to marketing problems. Specific topics to be investigated will depend upon the instructor and the students’ areas of interest and specific competencies.
Prerequisites: DSOM 5505, MKT 5501 (or equivalents).

MKT 5565 Marketing Management Credits: 2
Examines the role of marketing in driving profitable revenue growth in companies. The focus is placed on tools and approaches to analyzing and understanding customer needs including the roles of market research and brand equity and the development of integrated marketing plans to deliver to those needs.
Prerequisites: Admission to Executive MBA Program.
MKT 5570 MBA Capstone-Developing and Maintaining a Customer Centric Organizational Culture Credits: 3
This course begins by providing students a historical view of developing and maintaining a customer centric organizational culture and the impact of same on employees, suppliers, strategic partners and customers. Students are provided practical guidelines and actions and are required to develop an organizational culture plan.
**Prerequisites:** MSA, MPA, MSF, MSERE, or MSGE program student.

MKT 5575 Advanced Marketing Strategy Credits: 3
This course focuses on advanced marketing skills and practical techniques for defining and meeting the needs of the chosen market. The emphasis is on key drivers of marketing effectiveness, including creating a market-oriented culture, customer-focused information systems, the relationship of various components of marketing, and the response to marketing variables. A variety of pedagogical approaches, including applied projects, may be employed.
**Prerequisites:** MKT 5501 (or equivalent).

MKT 5587 Special Topics Credits: 3
Special topics in marketing.

MKT 5595 Internship Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community.

MKT 5597 Independent Study Credits: 1-6
Independent study and research in areas of special interest under individual faculty direction.

MKT 5899 Required Graduate Enrollment Credit: 1

**Public Administration Courses**

PUB-ADM 410 Research Methods In Public Administration Credits: 3
This introductory course focuses on quantitative empirical research design and statistical analyses in relation to public administration issues and concerns.
**Prerequisites:** Admission to MPA 5 year program.

PUB-ADM 420 Urban Environmental Policy Credits: 3
Our cities are a first line of action in our efforts to sustain our environment. Many have begun to examine and address the connection between city problems and environmental and climate change, and the disproportionate impacts that they often have on the disadvantaged, yet these initiatives address only the surface of the issue. It is essential for scientists, public administrators, environmentalists, and policy thinkers to pay greater attention to the environmental challenges of our cities. Students examine and assess the challenge of understanding, developing and implementing coherent environmental policy to address such challenges in urban communities.

PUB-ADM 421 Managing for Sustainability in an Urban Environment Credits: 3
Managing for sustainability requires an understanding of theories of organization, environmental management, and sustainability, including how to define and achieve sustainability. Students examine the complexities associated with issues of sustainability and the interrelationship between the global, the local and the personal. This includes consideration of how organizations function, the obstacles to sustainability confronted by sustainability managers, and specific management strategies and tools available to sustainability managers. It also involves the study of change models and their application by managers faced with the challenge of moving an organization from an old operational model to a more sustainable new organizational design.

PUB-ADM 422 Ethics for Nonprofit and Public Administrators Credits: 3
It is essential that organization and community leaders and managers understand the imperatives of ethical practice and ethical leader and manager behavior in nonprofit and governmental settings. Students are prepared to identify and assess the ethical implications of management and policy alternatives, to spot ethical issues before they become crises, and to competently and confidently develop and implement ethical decisions and actions in policy and practice. The ethical dimensions of democracy, political loyalty, pressure politics, interest group issues, pluralism, diversity and multi-cultural challenges, corruption and evil, honesty, the limits of ethical codes, whistle-blowing are included.

PUB-ADM 448 Leadership For Public Service Credits: 3
The two core purposes of this course are for students to learn about effective and ethical leadership, and for students to understand and develop their own capacity for leadership. The course is organized around three general themes: 1) leadership as relations with subordinates, including issues of work motivation; 2) leadership as lateral relations, including organizational politics and conflict management and resolution; and 3) leadership as influence in the organization's environment.
**Prerequisites:** Admission to MPA 5 year program.

PUB-ADM 455 Non-Profit Leadership Issues Credit: 1
Focusing on leadership issues in nonprofits, this course will explore issues in an intensive seminar format (fifteen class hours). Topics include building and renewing nonprofit boards, and the power of diversity in nonprofit organizations. Recommended for nonprofit management students.

PUB-ADM 455B Non-Profit Leadership Issues: Board-Staff Relations Credit: 1

PUB-ADM 487 Special Topics Credits: 3
Special topics in public administration.
PUB-ADM 495 Voluntarism, Philanthropy & The Non-Profit Sector In The U.S. Credits: 3
This course provides a survey of the origins, development and contemporary functioning of the private, nonprofit sector in the U.S. The course explores theories and concepts that describe the social, political, legal and economic meaning of voluntarism, philanthropy and the nonprofit sector.

PUB-ADM 497 Special Topics In Public Administration Credits: 1-3
Study and research in areas of special interest under individual faculty direction.

Prerequisites: senior standing.

PUB-ADM 497B Special Topics In Public Administration Credits: 1-3

PUB-ADM 5506 Management in Context Credit: 1.5
This course introduces students to the context of management in business, public, and nonprofit organizations with a specific emphasis on the political, regulatory, social, natural and global environment of management. Students who successfully complete this course gain an understanding of organizations and management that can be utilized in day-to-day work environments, apply theories and concepts to identify organizational issues, problems, and/or ethical considerations, and strengthen their ability to integrate and understand course content in a graduate program within the Bloch School of Management. Working individually and in groups, students will be asked to explain in written and oral formats, and in general and specific terms, what an organization is, how it works, and how it relates to them, to other organizations, and the environment.

Prerequisites: Students must be enrolled in a Bloch School graduate program.

PUB-ADM 5510 Research Methods In Public Administration Credits: 3
This introductory course focuses on quantitative empirical research design and statistical analyses in relation to public administration issues and concerns.

PUB-ADM 5523 Public Policy Context for Business Decisions Credits: 3
This course is designed to provide intensive exposure to the forces and personalities in Washington, D.C. that shape America’s business policy. EMBA participants learn how to understand and anticipate the impact of public policy on their businesses and how to become more effective participants in the national decision-making process.

Prerequisites: Admission to the Executive MBA program.

PUB-ADM 5525 Financial Accountability And Policy Development Credits: 3
Modern fiscal policy and its administrative implications to planning, budgeting, revenue administration, accounting and appraisal, and the process for assuring accountability in the development, timing, and execution of public programs.

Prerequisites: PUB-ADM 5510 (or equivalent).

PUB-ADM 5526 The Politics Of Administration Credits: 3
This course will introduce the subject of public administration from a political perspective. Special attention will be given to an examination of the administrative branch of government. More specifically, the course will focus on the demands directed to administrators from various sectors of the political system, ways in which administrators respond to those demands, and methods available for the analysis of public policies that help us assess the impacts that flow from administrators’ actions.

PUB-ADM 5528 Supervision, Performance Leadership, & Human Resource Management Credits: 3
Focuses on the public service leader as a catalyst in developing and sustaining high-performance, outcome-based cultures and as a human resource strategist in marshaling the workforce. Geared to the work of nonprofit, health care, and government executives and managers, the course addresses strategies for developing, organizing, and mobilizing the workforce to accomplish the organization’s mission. Topics include recruiting, engaging and retaining talent, including volunteers; developing and coaching subordinates; appraising and rewarding performance; delegation; and legal dimensions of HR, including anti-discrimination law.

Prerequisites: PUB-ADM 5548.

PUB-ADM 5529 Social Responsibility and Social Entrepreneurship Credits: 2
Using the social enterprise concept, students learn the theory that major companies can move social responsibility from a cost center to a profit center. In this evolving landscape, social entrepreneurs are at the vanguard of creating new business models for neglected markets that corporations can emulate, partner with or acquire to take to scale. As the traditional lines blur among nonprofits, government and business, it is critical that business students understand the opportunities and challenges in this new landscape.

PUB-ADM 5530 Capstone Seminar In Public Administration Credits: 3
This course examines theories of public organizational design, structure and change, including various issues in the administration of public organizations. Questions of professional ethics and management in the public interest are also considered. This is the final course in the MPA core curriculum.

Prerequisites: PUB-ADM 5525, PUB-ADM 5526, PUB-ADM 5544, PUB-ADM 5548 (or equivalents), or concurrent enrollment. Health-services students can substitute HLTH-ADM 5571 for PUB-ADM 5525, and HLTH-ADM 5578 for PUB-ADM 5544.
PUB-ADM 5535 Urban Policy and Administration Credits: 3
An examination of the formulation and administration of policies by urban governments. The course examines (a) the historical and intergovernmental contexts for decision making by urban governments, (b) the governmental forms and political processes employed in making these decisions, and (c) the various urban problems and service delivery issues which require decisions in the contemporary city.

PUB-ADM 5536 Managing Urban Economic Development Credits: 3
This course explores what managers in the public, nonprofit and private sectors need to know about urban economic development. Topics include (a) theories of urban economic development, (b) varying forms of development (e.g., attraction of new industries, central business district development, neighborhood economic development), (c) policy managerial tools for stimulating development, and (d) issues of equity in economic development.

PUB-ADM 5538 Comparative Urban Administration Credits: 3
An analysis of urban administration and planning in different comparative political, economic, and cultural settings. Analytical techniques will be applied to case studies of selected urban administrative processes involving American and other cities.

PUB-ADM 5539 Urban Planning for Public Administrators Credits: 3
This course is designed to provide students in urban administration with a comprehensive overview of the planning process. Course topics include a review of planning and the problems of effective planning implementation.

PUB-ADM 5540 Metropolitan Governance Credits: 3
Relatively few of the problems confronting urban areas are confined to a single city and the most challenging problems usually require regional solutions. This graduate-level course examines the challenges encountered in governing metropolitan regions, the key actors in this process, and the means by which regional problems are identified and addressed. The topics covered in this course include: regional politics and the obstacles to intergovernmental cooperation; the role of councils of government and other regional bodies in metropolitan governance; and the powers, obligations, and roles of municipal and county government in regional systems of governments.

PUB-ADM 5541 Public Policy Development and Analysis Credits: 3
Public, nonprofit, and health organizations must navigate dense systems of complementary and contradictory public policies. These policies assign value to the actions of citizens, and are designed through a process of negotiation and analysis. In this course students will develop the frameworks and analytical methods necessary to understand the process of policy creation as well as the costs and benefits associated with any given policy, including the economic foundations for policy and the impact of policy on management decisions.

PUB-ADM 5544 Program Evaluation Credits: 3
Survey of the tools and procedures for evaluating and analyzing policies and programs in the public sector, including nonprofit and human services organizations. Consideration of such topics as definition of goals, developing measures of effectiveness, evaluation research designs, benefit-cost analysis, and the special problems of rational analysis in a political environment. 
Prerequisites: PUB-ADM 5510 (or equivalent).

PUB-ADM 5546 Socially Responsible Management and Ethics Credits: 2
An introduction to the context of management in business, public, and nonprofit organizations with a specific emphasis on the political, regulatory, social, natural and global environment of management. Students gain an understanding of organizations and management that can be used in day-to-day work environments, apply theories and concepts to identify organizational issues, problems, and/or ethical considerations. Working individually and in groups, students explain in written and oral formats, and in general and specific terms, what an organization is, how it works, and how it relates to them, to other organizations, and the environment.

PUB-ADM 5548 Leadership for Public Service Credits: 3
The two core purposes of this course are for students to learn about effective and ethical leadership, and for students to understand and develop their own capacity for leadership. The course is organized around three general themes: 1) leadership as relations with subordinates, including issues of work motivation; 2) leadership as lateral relations, including organizational politics and conflict management and resolution; and 3) leadership as influence in the organization's environment.

PUB-ADM 5551 Strategic Management in Nonprofit Organizations Credits: 3
This is an advanced course in the nonprofit management emphasis. Following review of the legal and economic uniqueness of private, nonprofit organizations, the course helps students develop a strategic framework and apply the key concepts to the management of nonprofit entities. Recommended
Prerequisites: PUB-ADM 495, PUB-ADM 5548 (or equivalent).

PUB-ADM 5552 Community Organizations and Public Policy Credits: 3
This course includes examination of both neighborhood organizations and organizations intended to promote other communities of interest. In relation to neighborhood organizations, topics considered include the varieties of neighborhoods, the role of neighborhood organizations in local politics, the use of neighborhoods in administrative and political decentralization, and federal policy toward neighborhood issues. In relation to other community organizations, topics considered include the basis of such organizations, their roles in public affairs and their effects on policy processes.

PUB-ADM 5553 Legal Framework and Financial Management of Nonprofit Organizations Credits: 3
Utilizing a comparative approach the course examines the legal basis and tax treatment of private, nonprofit organizations in the U.S. Related topics also considered include concepts of fund and cost accounting, budgeting processes, earned income strategies, employee compensation and benefits practices, laws and regulations affecting lobbying, competition with business and unrelated business income tax.
PUB-ADM 5554 Seminar on Social Entrepreneurship Credits: 3
Seminar on Social Entrepreneurship is a graduate-level special-topics seminar that offers students from across the university the opportunity to engage in an in-depth examination of social entrepreneurship and how it is being understood, developed and practiced in the nonprofit sector. Students will gain a broad understanding of the various conceptions, types and aspects of social entrepreneurship, learn about processes for engaging in entrepreneurial nonprofit organization development, and discuss design and implementation issues with nonprofit leaders who have implemented various forms of social entrepreneurship.

PUB-ADM 5555 Topics In Nonprofit Fundraising Credits: 1-3
In order to flexibly treat the variety of strategies and techniques of charitable fundraising, these courses will usually be offered in variable credit hour segments, covering traditional and emerging fundraising topics. Each semester, two two-credit-hour segments and two one credit-hour segments will be offered. The two credit hour courses - Organizing for Successful Fund Raising and "Creating and Implementing the Annual Development Plan" - cover the basics of fund raising. The one-credit hour courses allow students to explore several different issues related to fund raising such as direct marketing and planned giving. These courses are recommended for nonprofit management students.

PUB-ADM 5555A Topics In Nonprofit Fund Raising: Organizing For Successful Fund Raising Credits: 2 Organizing for successful fundraising.

PUB-ADM 5555B Topics In Nonprofit Fund Raising: Creating & Implementing Annual Development Plans Credits: 2 Creating and implementing annual development plans.

PUB-ADM 5555C Topics In Nonprofit Fund Raising: Direct Marketing & Direct Mail In Fundraising Credit: 1 Direct marketing and direct mail in fundraising.

PUB-ADM 5555D Topics In Nonprofit Fund Raising: Planned Giving and Major Gift Solicitation Credit: 1 Planned Giving and Major Gift Solicitation.

PUB-ADM 5555E Topics In Nonprofit Fund Raising: Contemporary Trends/Ethical Issues In Fund Raising Credit: 1 Contemporary trends/ethical issues in fundraising.

PUB-ADM 5555F Topics In Nonprofit Fund Raising: Prospect Research And Proposal Writing Credit: 1 Prospect research and proposal writing.

PUB-ADM 5555G Developing Campaigns and Working with Consultants Credit: 1
In this course, various fund development campaigns and strategies will be explored; students will understand the differences between construction, renovation, equipment, program development and endowment as gift objectives. The phases of a campaign will be reviewed along with background on committee structures, goal-setting, leadership, timing and gift tables. The role of fund raising counsel will be explored. Participants will have an understanding of campaigns as important, episodic exercises for nonprofit agencies.

PUB-ADM 5555H Measurement and Evaluation for Fundraising Success and Social Impact Credit: 1
Nonprofit leaders can spend an enormous amount of time and effort creating evaluation models and reporting relevant data to funders to demonstrate positive social impact. Demonstrating success of a program or initiative is the basis for ensuring that a nonprofit has been a good steward of its mission and donated funds. However, the investment in building and fulfilling evaluation models must be commensurate with the funds awarded. This course will provide an overview of the planning and development of evaluation approaches that align well with the organization's and funder's needs. The course will introduce participants to the development and use of a measurement methodology.

PUB-ADM 5555X Topics in Nonprofit Fundraising Credit: 1 Special topics in nonprofit fundraising.

PUB-ADM 5555A Topics In Nonprofit Fund Raising: Organizing For Successful Fund Raising Credits: 2 Organizing for successful fundraising.

PUB-ADM 5555B Topics In Nonprofit Fund Raising: Creating & Implementing Annual Development Plans Credits: 2 Creating and implementing annual development plans.

PUB-ADM 5555C Topics In Nonprofit Fund Raising: Direct Marketing & Direct Mail In Fundraising Credit: 1 Direct marketing and direct mail in fundraising.

PUB-ADM 5555D Topics In Nonprofit Fund Raising: Planned Giving and Major Gift Solicitation Credit: 1 Planned Giving and Major Gift Solicitation.

PUB-ADM 5555E Topics In Nonprofit Fund Raising: Contemporary Trends/Ethical Issues In Fund Raising Credit: 1 Contemporary trends/ethical issues in fundraising.

PUB-ADM 5555F Topics In Nonprofit Fund Raising: Prospect Research And Proposal Writing Credit: 1 Prospect research and proposal writing.

PUB-ADM 5555G Developing Campaigns and Working with Consultants Credit: 1
In this course, various fund development campaigns and strategies will be explored; students will understand the differences between construction, renovation, equipment, program development and endowment as gift objectives. The phases of a campaign will be reviewed along with background on committee structures, goal-setting, leadership, timing and gift tables. The role of fund raising counsel will be explored. Participants will have an understanding of campaigns as important, episodic exercises for nonprofit agencies.

PUB-ADM 5555H Measurement and Evaluation for Fundraising Success and Social Impact Credit: 1
Nonprofit leaders can spend an enormous amount of time and effort creating evaluation models and reporting relevant data to funders to demonstrate positive social impact. Demonstrating success of a program or initiative is the basis for ensuring that a nonprofit has been a good steward of its mission and donated funds. However, the investment in building and fulfilling evaluation models must be commensurate with the funds awarded. This course will provide an overview of the planning and development of evaluation approaches that align well with the organization's and funder's needs. The course will introduce participants to the development and use of a measurement methodology.

PUB-ADM 5555X Topics in Nonprofit Fundraising Credit: 1 Special topics in nonprofit fundraising.

PUB-ADM 5556 Innovation In Nonprofit Management And Leadership Credits: 3
This course provides an opportunity for students in the nonprofit management specialization to examine "breaking" innovations in nonprofit management and leadership. Intra- and inter-sectoral collaborative strategies and total quality management are illustrative examples. Other topics will be considered as warranted. Recommended preparation: PUB-ADM 5525, PUB-ADM 5548 (or equivalents), and at least six hours of nonprofit management coursework.

PUB-ADM 5556 Ethics for Nonprofit and Public Administrators Credits: 3
It is essential that organization and community leaders and managers understand the imperatives of ethical practice and ethical leader and manager behavior in nonprofit and governmental settings. Students are prepared to identify and assess the ethical implications of management and policy alternatives, to spot ethical issues before they become crises, and to competently and confidently develop and implement ethical decisions and actions in policy and practice. The ethical dimensions of democracy, political loyalty, pressure politics, interest group issues, pluralism, diversity and multi-cultural challenges, corruption and evil, honesty, the limits of ethical codes, whistle-blowing are included.

PUB-ADM 5559 Voluntarism, Philanthropy, and the Nonprofit Sector Credits: 3
This course provides a survey of the origins, development and contemporary functioning of the private, nonprofit sector in the U.S. The course explores theories and concepts that describe the social, political, legal and economic meaning of voluntarism, philanthropy and the nonprofit sector. Cross Listings: PUB-ADM 495.

PUB-ADM 5565 Topics In Urban Administration Credits: 1-3
To flexibly treat the variety of strategies, information, and techniques in urban administration and leadership, these courses will be offered in variable credit hour segments. Each semester, courses will be offered around traditional and emerging topics. An initial "basics" series will be offered on community development organizations, urban economic development and community development strategies.
PUB-ADM 5565A Community Economic Development: The Planning Context Credit: 1
PUB-ADM 5565B Community Economic Development Tools & Techniques Credit: 1
PUB-ADM 5565C Implementing Effective Community Economic Development Credit: 1
PUB-ADM 5565D Topics in Urban Administration Credits: 1-3
To flexibly treat the variety of strategies, information, and techniques in urban administration and leadership, these courses will be offered in variable credit hour segments. Each semester, courses will be offered around traditional and emerging topics. An initial "basics" series will be offered on community development organizations, urban economic development and community development strategies.

PUB-ADM 5566 Urban Environmental Policy Credits: 3
Our cities are a first line of action in our efforts to sustain our environment. Many have begun to examine and address the connection between city problems and environmental and climate change, and the disproportionate impacts that they often have on the disadvantaged, yet these initiatives address only the surface of the issue. It is essential for scientists, public administrators, environmentalists, and policy thinkers to pay greater attention to the environmental challenges of our cities. Students examine and assess the challenge of understanding, developing and implementing coherent environmental policy to address such challenges in urban communities.

PUB-ADM 5567 Managing for Sustainability in an Urban Environment Credits: 3
Managing for sustainability requires an understanding of theories of organization, environmental management, and sustainability, including how to define and achieve sustainability. Students examine the complexities associated with issues of sustainability and the interrelationship between the global, the local and the personal. This includes consideration of how organizations function, the obstacles to sustainability confronted by sustainability managers, and specific management strategies and tools available to sustainability managers. It also involves the study of change models and their application by managers faced with the challenge of moving an organization from an old operational model to a more sustainable new organizational design.

PUB-ADM 5570 Diversity In The Workplace Credits: 3
This course explores the many issues raised by the growing diversity of backgrounds (e.g., race, gender, culture) employees bring to the workplace. The course will examine diversity issues including demographics, relevant legislation, values questions, demands on management, and effects on service delivery to clients. To better illustrate the issues, some class sessions will feature guest lecturers representing a diversity of backgrounds and work settings.

PUB-ADM 5573 Health and Social Equity Credits: 3
Examines the complex relationship between the social and political environment and health outcomes. All policy is health policy – economic, transportation, natural and built environments, schools. This course considers how social equity shapes health behaviors and how the life odds in different communities expose the historical legacies of past injustices. Only ten percent of health disparities are explained by access to care, although health care and health insurance dominate the public conversation. Draws on guest speakers, books, journal articles, popular press, film and art; as varied as are the social determinants of health, so are media that explore those relationships.

Cross Listings: HLTH-ADM 5573.

PUB-ADM 5581 Seminar In Urban Administration Credits: 3
Advanced work on special topics in urban administration. Topics will vary.
Prerequisites: PUB-ADM 5535.

PUB-ADM 5582 Developing and Managing the Nonprofit Social Enterprise Credits: 3
This graduate-level course offers students from across the university the opportunity to learn about and better understand the processes and practices associated with developing and operating a nonprofit social enterprise. Students learn through team-based simulation experience what is required to create and operate successful social enterprises, and engage in extensive discussions with nonprofit leaders who have implemented some form of social enterprise or other Innovative earned-income initiative.

PUB-ADM 5585 Seminar In Public Affairs Credits: 3
Advanced work on special topics in public affairs.

PUB-ADM 5585A Seminar In Public Affairs Credits: 3
Advanced work on special topics in public affairs.

PUB-ADM 5585B Seminar In Public Affairs Credits: 3
Advanced work on special topics in public affairs.

PUB-ADM 5585C Seminar In Public Affairs Credits: 3
Advanced work on special topics in public affairs.

PUB-ADM 5587 Special Topics Credits: 3
Special topics in public administration.

PUB-ADM 5595 Internship Seminar Credits: 1-3
Combined classroom study and field internship. To be offered only when government agency internships approved by the Public Administration Committee are available.
Prerequisites: 18 credit hours of completed courses.
PUB-ADM 5598A Supervised Research: Nonprofit Management Credits: 1-6
PUB-ADM 5598C Supervised Research: Urban Administration Credits: 1-6
PUB-ADM 5598G Supervised Research: Unspecified Credits: 1-6
PUB-ADM 5599 Thesis Credits: 1-9
PUB-ADM 5610 Inquiry In Public Administration And Affairs Credits: 3
This course is designed to provide Ph.D. students a thorough grounding in strategies of inquiry. Issues considered include competing metatheoretical paradigms and alternative conceptions of explanation in the social and policy sciences, the implications of such alternatives for empirical research, the variety and standards of qualitative and quantitative approaches to theory and research, theory construction, and research ethics. Contemporary problems in public administration and affairs research and theory are emphasized.
PUB-ADM 5620 Literature Of Public Affairs And Administration Credits: 3-6
This course grounds the student in the central ideas of the public affairs and administration literature and in the prominent themes of the discipline. The course is offered in two versions: A, in which the political science approach to public affairs and administration is emphasized; and B, in which the organizational theory and behavior approaches to public affairs and administration are emphasized. Ph.D. students whose coordinating discipline is public affairs and administration are ordinarily expected to complete both versions.
**Prerequisites:** PUB-ADM 5525, PUB-ADM 5526, and PUB-ADM 5544 (for PUB-ADM 5620A); PUB-ADM 5530, PUB-ADM 5548 (for PUB-ADM 5620B).

PUB-ADM 5620A Literature Of Public Affairs And Administration: Political Science Credits: 3-6
PUB-ADM 5620B Literature Of Public Affairs And Administration: Organizational Theory & Behavior Credits: 3-6
PUB-ADM 5699 Dissertation And Research In Public Affairs And Administration Credits: 1-12
Dissertation research and writing in the Public Affairs and Administration discipline.
PUB-ADM 5899 Required Graduate Enrollment Credit: 1
PUB-ADM 598E Supervised Research: International Management Credits: 1-6

**Real Estate Courses**

RL-EST 321 Real Estate Principles Credits: 3
The student will be introduced to the very basics of real estate from the terminology, real estate's role in the economy, legal foundations, government controls, appraisal processes, valuation processes, brokering and closing transactions, time value of money, basic management issues and lease clauses, and basic standard form purchase contracts.

RL-EST 322 Real Estate Principles II Credits: 3
This practical course is designed to build upon the terminology and professional obligations learned in Principles I. The purpose of this course is to introduce the student to the basic concepts of real estate and provide initial exposure to the real estate profession. Completion of the course will provide students with a better understanding of the complexity and breadth of the real estate industry.
**Prerequisites:** RL-EST 321 or ENT 321.

RL-EST 421 Real Estate Finance Fundamentals Credits: 3
This course will provide a fundamental understanding of basic financial concepts of real estate including compounding and discounting, construction of amortization tables and after-tax yield analysis for a simple real estate investment. It also touches on the basics of title insurance, ownership issues, fixed rate verses variable rate mortgages in residential real estate, understanding housing bubbles, and trends in valuation of residential real estate. In addition, the student will complete mathematical comparisons of leasing versus owning a home.
**Prerequisites:** FIN 325.

RL-EST 425 Principles of Real Estate Property Management Credits: 3
Explores the complexities of managing apartments, condominiums, office buildings, industrial property, and shopping centers. This course covers rental markets, development of rental schedules, leasing techniques and negotiations, repairs and maintenance, tenant relations, merchandising, selection and training of personnel, accounting and owner relations.

RL-EST 496 Internship: Real Estate Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community. Internship coursework is evaluated on a credit/no credit basis.

RL-EST 497 Special Topics: Real Estate Credits: 1-3
Study and research in areas of special interest under individual faculty direction.
**Prerequisites:** senior standing.

RL-EST 5555 Real Estate Forum Credit: 1
Real estate is an interdisciplinary field of study which involves a number of related professions. In this course students will be exposed to the full array of disciplines by listening to, and interacting with, a series of industry leaders. These leaders will be drawn from such fields as architecture, brokerage, construction, development, consulting/appraisal, finance, investment, law and global fields. The course will be open to students from across campus to help sensitize others to the breadth of the discipline and the nature of inquiry and career paths it entails. Students will learn the entrepreneurial spirit that it takes to succeed.
RL-EST 5556 Entrepreneurial Real Estate Process Credits: 3
This interdisciplinary course adopts an entrepreneurial approach to the real estate process spanning concept generation, planning, research, acquisition, design, construction, finance, and investment. The course is open to students from various units across campus. Students will engage in experiential learning to sensitize them to the breadth of inquiry, critical thinking and analysis involved in contemporary real estate. Instruction focuses on creation of optimal spatial solutions for targeted users on targeted sites that are economically viable, sustainable and environmentally responsible. The course emphasizes the importance of focusing on value creation, control and capture across the full life cycle of real estate.

RL-EST 5557 Urban Planning Contexts for Real Estate Decisions Credits: 3
Overview of forces and trends affecting community growth and change history, ecology, economics, demography, design and development pertaining to human settlement patterns and their interrelationship in the urbanization process, especially at the national, regional, townscape and neighborhood level.

RL-EST 5558 Capital Markets Credits: 3
The course examines the influence of capital markets on real estate by covering the structure and operation of the private and public, debt and equity real estate capital markets, as well as derivative markets that involve real estate. A thorough range of topics in equity real estate investment are examined including: private equity markets, private equity deal structuring, public and private real estate investment trusts (REITs), measuring risk and return; structuring optimal portfolios, portfolio valuation issues, valuing publicly traded real estate securities, performance evaluation and attribution, and real estate risk management techniques. This course also covers a variety of topics in commercial real estate debt markets including: the structure of the US mortgage finance system, and the valuation of mortgages and commercial mortgage backed securities.

RL-EST 5559 Corporate Real Estate Credits: 3
This course concentrates on the decisions any business faces when it comes to finding a location/s in which to operate their business/s. It deals with financial and subjective decision making models to chose a location that will create the lease occupancy cost to the business owner as well as maximizing the operation of their business. Various modeling techniques will include Lease vs Lease Analysis; Lease vs Own Analysis, Location Factor Analysis standard lease provisions, construction management topics and public-private incentives and the impact on a corporate financial statement under the current regulations of FASB 13.

RL-EST 5571 Real Estate Finance Credits: 3
This course introduces students to the full spectrum of real estate finance and investment analysis. It helps students quantify the financial implications of various real estate decisions for individual properties as well as more strategic decision-making applied to real estate portfolios. Using a combination of experiential and incremental learning students develop the foundation skills necessary to support more advanced concepts and financial theory. The course explores time value of money, law, leverage, underwriting, discounted cash flow, investment analysis, and capital markets. Students also develop advanced modeling skills and learn how to apply state-of-the art financial packages to support decisions.

Prerequisites: RL-EST 5556.

RL-EST 5572 Global Real Estate Credits: 3
Globalization is one of the key forces that have forced the real estate industry to recognize that while real estate may be located in a specific market, it is subject to a number of national and global forces. In this course, students will learn how globalization of the business, economic and capital markets affects real estate and how global capital flows affect the value of individual investments. Students will also learn how globalization has affected the key players – developers, investors, space users and lenders— and the impact on how they approach real estate on a country-specific and global basis.

Prerequisites: RL-EST 5571.

RL-EST 5573 Real Estate Feasibility and Market Analysis Credits: 3
This course helps students develop entrepreneurial, fact-based approaches to problem-solving and decision support. It incorporates experiential learning to help students deploy quantitative and qualitative approaches that incorporate the perspectives of space users, space producers, and market facilitators. Students learn how to address the goals and objectives of a particular client, while also considering the externalities and impacts such decisions have on the built environment. Students will integrate critical thinking with spatial and financial analytical methods and state-of-the-art tools to quantify market demand and to translate that demand to a spatial solution that is marketable and financially feasible.

Prerequisites: RL-EST 5556.

Co-requisites: ENT 5576.

RL-EST 5574 Real Estate Construction and Development Credits: 3
This course explores principles and techniques of construction project management and real estate development. Adopting a holistic perspective it places the production of real estate in a broader context of product life cycles drawing on systems analysis, planning, programming, budgeting and staffing, controlling major projects. Students apply experiential learning and assume the role of a developer who marshals the resources needed to produce real estate. It explores new projects and renovation of existing space with emphasis on customizing products to fit user needs. The course sensitizes students with emphasis on creating sustainable products that are socially responsible and economically viable.

Prerequisites: RL-EST 5556.

RL-EST 5575 Real Estate Taxation Credits: 3
This course concentrates on factors affecting real estate investments; legal forms of ownership, depreciation, tax basis, tax impacts on exchanges, syndications, real estate securities, and other federal laws affecting real estate.
RL-EST 5576 Real Estate Property and Portfolio Management Credits: 3
This course explores the complexities and integration of property and portfolio management which are critical to the creation, control and capture of real estate value. Students learn how to approach real estate in a more holistic manner by integrating management functions that range from individual property types to portfolios of properties. Students learn how to incorporate marketplace factors in their decisions and apply modern portfolio theory and other tools to construct and manage properties and portfolios in a socially responsible manner. Using experiential methods students learn to apply critical thinking to solve complex property and portfolio management problems.

**Prerequisites:** RL-EST 5571.

RL-EST 5577 Real Estate Valuation Credits: 3
This course provides students with an understanding of real estate appraisal garnered through a combination of lectures, projects and discussions. Students explore valuation theory, behavioral processes, and the unique nature of the inefficient real estate market. Through hands on exercises that constitute the experiential learning students apply best practices embedded in the three approaches to value that underpin real estate appraisal: cost, income and sales comparisons. Students also analyze the impact of macroeconomic conditions, supply/demand conditions, capital flows, and investor behavior. Students develop proprietary valuation models and apply appropriate quantitative tools and software for predicting most probable prices.

**Prerequisites:** RL-EST 5556.

RL-EST 5578 Legal Context of Real Estate Credits: 3
This interdisciplinary course acquaints business and law school students with legal issues in development, ownership and operation of commercial real estate. It also explores the roles of various professionals in real estate transactions. Students will learn legal concepts and terminology, and acquire familiarity with key issues and documents relating to real estate decisions and entrepreneurship, including leasing, insurance, negotiations, construction and architect's contracts, transactions, regulation, financing and bankruptcy. Students learn how to apply risk management to design and construction contracts, insurance, bonding and indemnification, as well choice of business entity, income tax planning and negotiation of joint ventures.

RL-EST 5579 Real Estate Capstone Credits: 3
This course is a group simulation of an actual case in real estate that enables students to utilize all of their previous course experience on a real-world case in real estate. It is intended that this case study will enable students to appreciate the multiple facets of real estate, and the need to call upon the tools, concepts and skills taught in the analysis of the highest and best use of the subject property.

RL-EST 5587 Special Topics Credits: 3
Special topics in real estate.

RL-EST 5595 Internship Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community.

RL-EST 5597 Real Estate: Independent Study Credits: 1-6
Independent study and research in areas of special interest under individual faculty direction.

RL-EST 5899 Required Graduate Enrollment Credit: 1
About the Bloch School

Degree Programs
The Bloch School offers the degrees of bachelor of business administration (B.B.A.), bachelor of science in accounting (B.S.A.), master of business administration (M.B.A.), master of public administration (M.P.A.), master of science in accounting (M.S.A.), master of science in finance (M.S.F.), and master of science in entrepreneurial real estate (M.S.E.R.E.). Within the MBA program there are Executive MBA (EMBA) and Full-Time MBA offerings. Within the M.P.A., there is an Executive M.P.A. (E.M.P.A.) offering. Additionally, the Bloch School has two joint degree programs with the UMKC School of Law, the J.D./M.B.A and the J.D./M.P.A degrees, participates in the Interdisciplinary Ph.D. program and offers a Ph.D. in Entrepreneurship & Innovation. The Bloch School also offers business and entrepreneurship minors.

History
The University has offered business courses since 1933. In 1953, with the support and encouragement of the Kansas City community, the School of Business Administration was established. Since that time, the Bloch School has grown to a student body of 1900, and a faculty of approximately 45 professional educators. In January 1988, the School was renamed for Henry W. Bloch, co-founder of H&R Block, and moved into a newly expanded building. In 2010, the School officially changed its name to the Henry W. Bloch School of Management to reflect our differentiation as a school that integrates business management, public administration and the infusion of a global, innovative and entrepreneurial mindset. In the fall of 2013, the school opened a second building with a focus on entrepreneurship and innovation and executive education.

Mission and Vision
The Henry W. Bloch School of Management develops purposeful, entrepreneurial and innovative leaders to meet changing global demands, and advances knowledge and practice through excellent teaching, scholarship, outreach and service.

The Bloch School aspires to be Kansas City’s nationally and globally preeminent school of management focusing on entrepreneurship and innovative thinking as the foundation for transforming talent and achieving sustainable growth in for-profit, public, and nonprofit enterprises.

Accreditation
The Bloch School is accredited by AACSB International - The Association to Advance Collegiate Schools of Business and by the Network of Schools of Public Policy, Affairs, and Administration (NASPAA).

Advising and Student Services
Staff in the Student Services Office, room 115 of the Bloch Heritage Hall, assist students in planning programs and registering for courses. Freshmen and junior students must be advised each semester and advising is required for new students and students on probation. Advising information can be found at http://bloch.umkc.edu/students/student-services/advising.aspx. Faculty of the School’s six curricular departments are also available to discuss students’ programs. Students in the M.P.A. and M.S.E.R.E. programs are advised by departmental faculty. MBA students are advised by MBA departmental staff.

Scholarships
The Bloch School offers numerous scholarships for students enrolled in Bloch degree programs. Information and applications are available on the Bloch School Web site at http://bloch.umkc.edu/students/paying-for-school/bloch-scholarships.aspx. March 1 is the deadline for the majority of these scholarships, which are awarded for the following academic year. For information on loans, grants and other financial aid, contact the UMKC Student Financial Aid and Scholarships Office.

Internships
Students who want to experience work opportunities while in school are encouraged to take their learning beyond the classroom through internships. For-credit internships typically carry one to three hours of credit. To earn academic credit, students should identify a Bloch School faculty member qualified and willing to supervise an internship, complete an internship form available on the Bloch School Web site at http://bloch.umkc.edu/students/student-services/forms.aspx and enroll in an approved internship course. Interested students should contact the Bloch Career Services for internship opportunities. International students must also apply through the International Student Affairs Office to receive approval to work off campus.

International Study Abroad
Bloch School students have the opportunity to study abroad for credit. Students may study for a week, a semester (including summer), or an academic year. Students who are interested in study abroad opportunities should contact the Bloch School Student Services Office or the UMKC International Academic Programs Office.
Special Programs and Centers

Bloch Executive Education Center

Bloch School (http://www.umkc.edu/virtualtour/bloch.asp)
Bloch Executive Education Center
5108 Cherry Street, #417
(816) 235-6071
http://bloch.umkc.edu/executive-education/

Bloch Executive Education programs are designed to engage business, government, and non-profit leaders in applied learning. The Center offers customized programs, seminars, certificates and international programs that support innovation and leadership development in the U.S. and around the world. Custom programs are designed in concert with clients to support enterprise-wide initiatives and strategies. International programs serve to expose public and private international executives and scholars to the U.S. educational system as well as business operations. Management seminars are available to emerging leaders and senior executives based on personal and professional competency needs. Our nationally-recognized faculty provokes thought and challenges perspectives through relevant curricula that feature innovative thought, research insights, and business best practices.

Cookingham Institute of Urban Affairs

Bloch School
5110 Cherry Street, #305
(816) 235-2894
http://bloch.umkc.edu/cookingham/

The mission of the L.P. Cookingham Institute is to improve understanding of the sustainability of urban regions through research, educational programming, and community engagement. The Cookingham Institute also seeks to engage the UMKC community on issues related to urban and regional sustainability and to promote interdisciplinary research on urban topics. The Cookingham Institute is the means by which the Bloch School of Management supports research and teaching directed at improving our understanding of the factors affecting the fiscal and social sustainability of urban regions. The Greater Kansas City region provides an important context for our work, but the Institute is focused on producing knowledge relevant to urban regions across the country. In keeping with the Bloch School’s commitment to research and education on entrepreneurship and innovation, a special focus of the Institute is on understanding innovation in the public sector.

Lewis White Real Estate Center

Bloch School (http://www.umkc.edu/virtualtour/bloch.asp)
5110 Cherry Street, #312
(816) 235-6288/5188
http://www.umkc.edu/whitecenter/

The Lewis White Real Estate Center (White Center) engages in teaching, research, and service activities. On the teaching front, working through the Department of Global Entrepreneurship and Innovation, the White Center is the primary champion of the Master of Science in Entrepreneurial Real Estate, as well as the MBA emphasis, undergraduate emphasis, and individual courses in Real Estate. The White Center’s support for real estate activities cuts across campus through its commitment to interdisciplinary education. In addition to its educational activities, the White Center helps support academic research to help advance the body of knowledge and support real estate faculty. It also conducts and supports applied research to help advance best practices on the professional front. Consistent with UMKC, Bloch and Department missions, the White Center also engages in meaningful community and professional service activities, and supports service to the broader real estate academy.

Midwest Center for Nonprofit Leadership

Bloch School
5110 Cherry Street
(816) 235-2305
http://bloch.umkc.edu/mwcnl/

The Midwest Center for Nonprofit Leadership (MCNL) is the education, research and community service center of the Department of Public Affairs in the Henry W. Bloch School of Management whose mission is to strengthen the performance and effectiveness of nonprofit public service organizations and their leaders. The Center is dedicated to building healthier communities through nonprofit leadership, and it does so through high quality community-oriented education, research and facilitation programs and services. The Midwest Center provides an extensive array of programs for the education, professional development and personal renewal of nonprofit organization leaders and managers, including programs on nonprofit boards and governance, ethical and effective leadership and management, financial management, and social entrepreneurship. It is especially dedicated to meeting the needs of the many small and medium-sized community-based organizations and agencies serving the Kansas City metropolitan region. The Center also operates a Nonprofit Resource Center that is open to students and all members of the community.
Regnier Institute for Entrepreneurship and Innovation

Bloch School (http://www.umkc.edu/virtualtour/bloch.asp)
5108 Cherry Street, BEH 329
Kansas City, MO 64110-2499
P: (816) 235-6200
F: (816)-235-6529
http://www.entrepreneurship.bloch.umkc.edu/

The mission of the Regnier Institute for Entrepreneurship and Innovation at the Henry W. Bloch School of Management is to inspire and nurture entrepreneurs and innovators through transformational education and research. Our vision is to be a global leader in creating and disseminating knowledge to advance entrepreneurship and innovation. We encourage entrepreneurship, not just among business students, but among all students, and welcome those from any UMKC discipline who want to learn how to spark ideas and create new products and businesses.

The Institute and the Department of Entrepreneurship and Innovation offers entrepreneurship and innovation education at every educational level. Institute faculty and staff develop, deliver, and administer the Bloch School’s Entrepreneurship programs at all levels, including two doctoral degree programs, MBA and Executive MBA programs, a specialized Masters degree in Entrepreneurial Real Estate, an undergraduate program, and our renowned Entrepreneurship Scholars Program. Our entrepreneurship programs focus on building an entrepreneurial mindset that can be used to create a new business, create value in an existing organization, solve social problems, or live a more entrepreneurial life. Our courses and programs are taught by an accomplished and influential cross-disciplinary faculty recognized for their research and teaching accomplishments.
Student Organizations

Student Organizations

Alpha Kappa Psi
Alpha Kappa Psi is the oldest and largest co-educational professional business fraternity with more than 200 chapters internationally. They are open to all majors that are interested in business and becoming one of tomorrow’s leaders. With professional and personal development, leadership, networking and entrepreneurial opportunities, they can help you enhance your resume, distinguish yourself from your peers, and teach you skills that employers want.

Beta Alpha Psi
UMKC's Epsilon Delta chapter of Beta Alpha Psi, the national scholastic and professional accounting organization, provides opportunities for self-development and association among student members, practicing accountants and accounting faculty. Activities include technical programs presented by members and professionals, tutoring, taxpayer assistance, off-campus activities and social events.

Bloch School Student Association
The Bloch School Student Association (BSSA) is a board of directors to represent the student body on various campus and school administrative committees and sponsors a number of activities and events.

Delta Sigma Pi
Delta Sigma Pi, the nation’s largest and most diverse professional business fraternity, is open to students interested in all fields of business. Through professional speakers and seminars, developmental workshops and interactive social events with business leaders, faculty members and prominent alumni, the fraternity provides students an excellent opportunity to explore the business environment while still concentrating on academics.

Enactus
Enactus (formerly SIFE) is one of the largest student organizations in the world with teams on more than 1,600 college and university campuses in the United States and in more than 40 countries throughout the world. Working together as a team, Enactus students apply their classroom experiences to develop and implement educational outreach programs that educate individuals in their communities about the principles of market economics, success skills, environmental sustainability, entrepreneurship, financial literacy and business ethics. At the end of the year, teams present their year’s efforts and compete at regional competitions, with the winners going on to national and international competitions. The UMKC Enactus team has been very successful in these competitions, winning awards and receiving national attention. They have also received international recognition that resulted in team projects in several countries.

Financial Management Association
The Financial Management Association UMKC Student Chapter (FMA-UMKC) is affiliated with the Financial Management Association International (FMA), a premier global leader in developing and disseminating knowledge about financial decision making for academics, practitioners and students. Our members include UMKC students as well as FMA members in the Kansas City area. We are leaders in providing financial literacy related to financial decision-making and encouraging as well as developing college students’ financial interests through investment competitions, community projects, an active speaker program, corporate tours, a business career fair and newsletters. Also, we aspire to excellence as an organization.

Public Administration Student Association
The Public Administration Student Association (PASA) is made up of MPA and I.Ph.D. students who are interested in networking and socializing with students, faculty and professionals outside the classroom to enrich their experience at UMKC. PASA’s purpose is to engage students academically, professionally, and socially in the study and practice of public administration.
Undergraduate Programs
Undergraduate Policies and Procedures

Admission Requirements
Admission to undergraduate programs is available in the fall, spring and summer semesters. Students can elect to attend classes full-time or part-time and although the majority of courses are offered during the day, courses are also offered in the evening. First-time college students are eligible to be admitted to the Bloch School if they meet regular UMKC entrance requirements. Those transferring from other institutions must have 2.5 cumulative and University of Missouri (UM) GPAs. Intra-university transfers can enter Bloch School programs with a 2.25 UM GPA.

Retention Standards
Students in the bachelor of business administration (B.B.A.) or the bachelor of science in accounting (B.S.A.) programs are required to maintain a 2.25 cumulative University of Missouri GPA while enrolled in these programs. Students with GPAs that fall below the minimum 2.25 requirement are placed on probation and are allowed two successive semesters (including the summer semester, if enrolled) to restore their GPAs to the required 2.25. While on probation, undergraduates must achieve a 2.25 term GPA in order to enroll for the ensuing term. If a student’s term GPA is below a 2.25 or, if after two successive semesters, the cumulative University of Missouri GPA is still below a 2.25, the student will be dismissed from the Bloch School. Good academic standing is achieved only if the GPAs are 2.25. A 2.25 average in all junior/senior in-major courses is required as well.

Graduation Requirements
All students must satisfactorily complete the RooWriter before enrolling in MGT 301 or MGT 301A. Information regarding the RooWriter is available at https://umkc.edu/RooWriter.

The B.B.A. and B.S.A. degrees will be awarded on satisfaction of the following:

1. Completion of the degree requirements and a minimum of 123 credit hours.
2. Achievement of a 2.25 GPA; satisfactory academic standing is based on:
   • Cumulative GPA of 2.25 for all University of Missouri courses; and
   • GPA of 2.25 for all required junior- and senior-level, in-major courses completed at UM schools.
3. Completion of 50% of junior/senior in-major courses at UMKC. Accounting students must complete at least 15 hours of upper-level accounting courses at UMKC.
4. Completion of the RooWriter, the ETS Proficiency Profile and other assessment exercises as assigned by the Bloch faculty.
5. Completion of the Constitution Requirement (p. 2341).
6. Filing of a required application for graduation at the beginning of the senior year.

Students are responsible for ensuring their course of study falls within program guidelines.

Academic Loads
See the General Undergraduate Academic Regulations and Information section of this catalog.

Concurrent Enrollment
Concurrent enrollment (simultaneous enrollment at UMKC and any other institution of higher education) is prohibited under University and Bloch School policy unless approved in advance of enrollment. Petitions are considered in limited situations including demonstrated scheduling conflicts, course cancellations, and in instances where needed courses are not offered. A separate petition is required. Submitting a petition does not guarantee approval. Concurrent enrollment in the final semester may result in a delay of graduation.

Credit by Exam
Students who have received credit by exam from a previous institution must submit official scores to the UMKC Records Office. These scores must be acceptable to the department at UMKC housing the subject area. Credit by exam is not permitted after admission into the junior/senior portion of Bloch School programs. Bloch School freshmen and sophomore students should talk with an academic advisor in the Student Services Office about credit by exam restrictions.

Credit/No Credit
All undergraduate courses in the Bloch School must be taken for a letter grade, except for internship courses (496) which are taken credit/no credit.

Course Repeat Policy
When undergraduate students repeat courses, they can request to have only the grade for the final attempt used in calculating their GPA. The course repeat policy will not automatically be applied to a student’s GPA. After completing a repeated course, a student must submit a request for GPA adjustment form to his/her academic advisor.
The recalculation of a student’s GPA is reflected only in the calculation of that student’s current cumulative UM GPA and will not retroactively affect calculations for dean’s list, graduation and honors, eligibility for financial aid and veterans’ benefits and scholarships, athletic eligibility, discounts for insurance, or any other area.

- The GPA recalculation policy is applicable only to undergraduate students who repeat a course in which they earned a D+ or lower and in which academic dishonesty was not involved.
- Students can only replace grades if the original and the repeated course are taken at UMKC.
- Repeated courses must have been taken by Fall 2007 or later.
- Repeated courses may not be taken on a CR/NC basis.
- Original grades cannot be replaced with a 'W,' 'WF,' 'I,' or 'T.'
- No more than 15 semester hours can be dropped from the calculation of a student’s GPA by repeating course work.
- Requests approved for GPA recalculation will prefix the original grade with an 'R.' Transcripts will note that such grades are excluded from GPA calculations.

Exceptions

Exceptions to academic regulations must be approved by the Bloch School Student Services Office or the Associate Dean for Academic Affairs. To seek exceptions, students must file a formal written petition seeking an exception to academic policy with staff in the Bloch Student Services Office.

Independent Study

Students are limited to a total of six hours of Bloch School internship/independent study coursework, numbering 496 and 497 or MGT 490. Interested students should consult with an adviser in the Bloch School Student Services Office.

Latin Honors

Students must complete a minimum of 60 hours of coursework at UMKC to qualify for Latin Honors.
Bachelor of Business Administration

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

• Demonstrate technical competence in domestic and global business through the study of major disciplines within the fields of business.
• Demonstrate the fundamentals of creating and managing innovation, new business development and high-growth-potential entities.
• Define, analyze and devise solutions for structured and unstructured business problems and issues using cohesive and logical reasoning patterns for evaluating information, materials and data.
• Conceptualize a complex issue into a coherent written statement and oral presentation.
• Be competent in the uses of technology in modern organizational operations.

Admission Requirements
First-time college students are eligible to be admitted to the Bloch School if they meet regular UMKC entrance requirements. Those transferring from other institutions must have 2.5 cumulative and University of Missouri (UM) GPAs. Intra-university transfers can enter Bloch School programs with a 2.25 UM GPA. All students are required to maintain a 2.25 cumulative University of Missouri GPA while enrolled in this program.

Program Requirements
The Bloch School requires a minimum of 123 credit hours to earn the Bachelor of Business Administration (BBA) degree. This total includes coursework in the following areas: General Education, Electives, Basic Skills, Business Core and Emphasis. All students pursuing the BBA degree must select an emphasis area. Options include: Enterprise Management; Entrepreneurship; Finance; (four interest area options); Management; Marketing; and Real Estate.

See the Bloch School Undergraduate Policies and Procedures section (link to http://catalog.umkc.edu/colleges-schools/henry-w-bloch-management/undergraduate-programs/undergraduate-policies-procedures/) for additional information.

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A 1</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>
Focus B (Satisfied in program requirements below)
Focus C (May be satisfied by the Constitution course requirement below)
Focus Elective (Satisfied by program requirements below)

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

**Constitution Course Requirement**

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions."

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) 1</td>
<td></td>
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<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) 1</td>
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</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

**Program Prerequisites**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTNG 210</td>
<td>Introduction To Financial Accounting (Includes Lab)</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 211</td>
<td>Introduction To Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ECON 201</td>
<td>Introduction To Economics I (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>ECON 202</td>
<td>Introduction To Economics II (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 206</td>
<td>Brief Calculus And Matrix Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MIS 202</td>
<td>Computer Applications In Management</td>
<td>3</td>
</tr>
<tr>
<td>STAT 235</td>
<td>Elementary Statistics (Focus B)</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 24

**Major Requirements**

Courses for the B.B.A. program are listed below. All students must complete the core curriculum and choose one of six emphasis areas:

- Enterprise Management
- Entrepreneurship
- Finance
- Management
Prior to enrolling in any course, students must ensure they have completed the necessary prerequisites.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core B.B.A. Curriculum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DSOM 309</td>
<td>Intermediate Business Statistics</td>
<td>3</td>
</tr>
<tr>
<td>DSOM 326</td>
<td>Production/Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>ECON 302</td>
<td>Microeconomic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ENT 460</td>
<td>Creating the Enterprise</td>
<td>3</td>
</tr>
<tr>
<td>or ENT 462</td>
<td>Entrepreneurial Experience</td>
<td></td>
</tr>
<tr>
<td>FIN 325</td>
<td>Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 301</td>
<td>Effective Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>or MGT 301A</td>
<td>Effective Business Communication for Non-Native Speakers</td>
<td></td>
</tr>
<tr>
<td>MGT 306</td>
<td>Legal, Ethical And Regulatory Environment Of Business</td>
<td>3</td>
</tr>
<tr>
<td>MGT 330</td>
<td>Understanding the Individual in the Organization</td>
<td>3</td>
</tr>
<tr>
<td>MGT 355</td>
<td>Organizational Effectiveness and Leadership</td>
<td>3</td>
</tr>
<tr>
<td>MGT 370</td>
<td>International Management</td>
<td>3</td>
</tr>
<tr>
<td>or MGT 470</td>
<td>International Study in Business</td>
<td></td>
</tr>
<tr>
<td>MGT 471</td>
<td>Strategic Management</td>
<td>3</td>
</tr>
<tr>
<td>MIS 402</td>
<td>Information Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 324</td>
<td>Marketing Concepts</td>
<td>3</td>
</tr>
<tr>
<td>Total Area Courses 1</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>54</td>
</tr>
</tbody>
</table>

1 Please choose from one of the emphasis areas below.

2 Students in the Entrepreneurship emphasis will take ENT 462 in place of ENT 460.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>Title</td>
<td></td>
</tr>
<tr>
<td>General Electives 1</td>
<td></td>
<td>21</td>
</tr>
</tbody>
</table>

1 A maximum of two hours of PE activity is accepted as elective credit. Applied or military science and vocational courses may not be taken for elective credit.

Minimum GPA: 2.25 (UM and in-major)

Total Credit Hours: 123

**Emphasis Areas**

**Enterprise Management Option**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Enterprise Management Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DSOM 346</td>
<td>Management Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MGT 337</td>
<td>Managing Human Capital</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required Enterprise Management Electives, pick 3 from:</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>DSOM 431</td>
<td>Quality and Process Improvement</td>
<td></td>
</tr>
<tr>
<td>ENT 364</td>
<td>Entrepreneurial Management and Innovation</td>
<td></td>
</tr>
<tr>
<td>FIN 419</td>
<td>Financial Statement Analysis</td>
<td></td>
</tr>
<tr>
<td>MGT 470</td>
<td>International Study in Business 1</td>
<td></td>
</tr>
<tr>
<td>or MGT 370</td>
<td>International Management</td>
<td></td>
</tr>
<tr>
<td>MIS 415</td>
<td>Managing the Information Systems Resource</td>
<td></td>
</tr>
</tbody>
</table>
The course taken to meet the Business Core requirement may not count toward the required electives in Enterprise Management.

### Entrepreneurship Option

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT 315</td>
<td>Entrepreneurial Mindset and Opportunity Recognition</td>
<td>3</td>
</tr>
<tr>
<td>ENT 327</td>
<td>Designing the Business Model</td>
<td>3</td>
</tr>
<tr>
<td>ENT 412</td>
<td>Entrepreneurial Finance</td>
<td>3</td>
</tr>
</tbody>
</table>

Required Entrepreneurship Electives, pick 2 from:

- ENT 326 Creativity, Innovation, and Problem Solving
- ENT 329 Entrepreneurship Scholars
- ENT 361 New Product Development
- ENT 364 Entrepreneurial Management and Innovation
- ENT 425 Corporate Entrepreneurship
- ENT 432 Entrepreneurial Marketing and Selling
- ENT 461 Social Entrepreneurship

Other ENT courses approved by faculty

Total Credits 15

### Finance Option

Students choose one of the 15-hour course blocks below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 326</td>
<td>Financial Management 2</td>
<td>15</td>
</tr>
<tr>
<td>FIN 340</td>
<td>Global Financial Markets and Institutions</td>
<td></td>
</tr>
<tr>
<td>FIN 345</td>
<td>Investments</td>
<td></td>
</tr>
<tr>
<td>FIN 419</td>
<td>Financial Statement Analysis</td>
<td></td>
</tr>
<tr>
<td>FIN 435</td>
<td>Advanced Corporate Finance</td>
<td></td>
</tr>
</tbody>
</table>

Financial Intermediation

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 340</td>
<td>Global Financial Markets and Institutions</td>
<td></td>
</tr>
<tr>
<td>FIN 369</td>
<td>Payment Systems</td>
<td></td>
</tr>
<tr>
<td>FIN 419</td>
<td>Financial Statement Analysis</td>
<td></td>
</tr>
<tr>
<td>FIN 428</td>
<td>Commercial Bank Management</td>
<td></td>
</tr>
<tr>
<td>FIN 476</td>
<td>Introduction to Fintech</td>
<td></td>
</tr>
</tbody>
</table>

Investment Management

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 326</td>
<td>Financial Management 2</td>
<td></td>
</tr>
<tr>
<td>FIN 340</td>
<td>Global Financial Markets and Institutions</td>
<td></td>
</tr>
<tr>
<td>FIN 345</td>
<td>Investments</td>
<td></td>
</tr>
<tr>
<td>FIN 435</td>
<td>Advanced Corporate Finance</td>
<td></td>
</tr>
<tr>
<td>FIN 445</td>
<td>Advanced Investments</td>
<td></td>
</tr>
</tbody>
</table>

Risk Management and Insurance

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 350</td>
<td>Introduction to Risk Management and Insurance</td>
<td></td>
</tr>
<tr>
<td>FIN 451</td>
<td>Life &amp; Health Insurance</td>
<td></td>
</tr>
<tr>
<td>FIN 452</td>
<td>Property and Casualty Insurance</td>
<td></td>
</tr>
<tr>
<td>FIN 453</td>
<td>Risk Management</td>
<td></td>
</tr>
<tr>
<td>FIN 454</td>
<td>Principles of Surety and Corporate Liability</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 15
Management Option

Required Management courses, pick five from:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 337</td>
<td>Managing Human Capital</td>
<td></td>
</tr>
<tr>
<td>MGT 360</td>
<td>Groups and Teams</td>
<td></td>
</tr>
<tr>
<td>MGT 365</td>
<td>Managing in a Virtual Environment</td>
<td></td>
</tr>
<tr>
<td>MGT 370</td>
<td>International Management</td>
<td></td>
</tr>
<tr>
<td>or MGT 470</td>
<td>International Study in Business</td>
<td></td>
</tr>
<tr>
<td>MGT 375</td>
<td>Global Mindset for Managers</td>
<td></td>
</tr>
<tr>
<td>MIS 415</td>
<td>Managing the Information Systems Resource</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 15

1 MGT 470 taken to meet the Business Core requirement may not count toward the required electives in Management.

Marketing Option

Required Marketing Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKT 335</td>
<td>Consumer Behavior in Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKT 348</td>
<td>Market Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MKT 480</td>
<td>Marketing Strategy</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives

Required Marketing electives, pick 2 from:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT 361</td>
<td>New Product Development</td>
<td>3</td>
</tr>
<tr>
<td>MKT 418</td>
<td>Sales and Promotion Strategies</td>
<td>3</td>
</tr>
<tr>
<td>MKT 420</td>
<td>Sales Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 442</td>
<td>Internet/Direct Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKT 465</td>
<td>Introduction to Retailing and Pricing</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 15

Real Estate Option

Required Real Estate Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RL-EST 321</td>
<td>Real Estate Principles</td>
<td>3</td>
</tr>
<tr>
<td>RL-EST 421</td>
<td>Real Estate Finance Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>RL-EST 425</td>
<td>Principles of Real Estate Property Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives

Required Real Estate electives, pick 2 from:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RL-EST 496</td>
<td>Internship: Real Estate</td>
<td>6</td>
</tr>
<tr>
<td>ENT 315</td>
<td>Entrepreneurial Mindset and Opportunity Recognition</td>
<td></td>
</tr>
<tr>
<td>ENT 327</td>
<td>Designing the Business Model</td>
<td></td>
</tr>
<tr>
<td>ENT 361</td>
<td>New Product Development</td>
<td></td>
</tr>
<tr>
<td>ENT 412</td>
<td>Entrepreneurial Finance</td>
<td></td>
</tr>
</tbody>
</table>

Several Real Estate courses are crosslisted with Entrepreneurship courses. Students pursuing the Real Estate emphasis should enroll in the courses designated as RL-EST where appropriate.

Total Credits 15

Electives

Students will take electives to bring their program total to 123 credit hours. The number of hours required will vary based on selections made to satisfy general education requirements and will generally range from 15-21 hours. Electives can be used to pursue a minor or can be individually-selected courses to build a specific skill set or explore a particular interest. Students can have no more than 2 credit hours of physical education activity course work. Additionally, remedial courses, military science classes and vocational course work will not apply.

Graduation Requirements
All students must satisfactorily complete the RooWriter before enrolling in MGT 301 or MGT 301A. Information regarding the RooWriter is available at https://net3.umkc.edu/intapps/RooWriter/logon.aspx.

The BBA degree will be awarded on satisfaction of the following:

1. Completion of the degree requirements and a minimum of 123 credit hours.
2. Achievement of a 2.25 GPA; satisfactory academic standing is based on:
3. Cumulative GPA of 2.25 for all University of Missouri courses; and
4. GPA of 2.25 for all required junior-and senior-level in-major courses completed at UM schools.
5. Completion of 50% of junior/senior in-major courses at UMKC.
6. Completion of the RooWriter, the ETS Proficiency Profile and other assessment exercises assigned by the Bloch faculty.
7. Completion of the Constitution requirement.
8. Filing of a required application for graduation at the beginning of the senior year.

Students are responsible for ensuring their course of study falls within program guidelines.

**Tools for Planning and Fulfilling Academic Requirements**

UMKC's Major Maps (link to http://www.umkc.edu/majormaps/) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit.” In order to ensure that the appropriate courses are taken, students are encouraged to consult with an adviser for this major.

UMKC’s Degree Audit System (link to http://www.umkc.edu/registrar/majors-degrees/dars.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree-Specific, Major-Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.
Bachelor of Science in Accounting

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

• Demonstrate entry-level technical competence in financial accounting, taxation, cost/managerial, systems, and auditing. The competency level is not sufficient to meet the technical requirements for professional certification but will serve as the technical foundation for graduate education.
• Demonstrate technical competence in domestic and global business through the study of major disciplines within the fields of business.
• Demonstrate the fundamentals of creating and managing innovation, new business development and high-growth-potential entities.
• Be able to define, analyze and devise solutions for structured and unstructured business problems and issues using cohesive and logical reasoning patterns for evaluating information, materials and data.
• Be able to recognize ethical dilemmas and apply a professional code of conduct to resolve them.
• Be able to conceptualize a complex issue into a coherent written statement and oral presentation.
• Be competent in the uses of technology in modern organizational operations.

Admission Requirements
First-time college students are eligible to be admitted to the Bloch School if they meet regular UMKC entrance requirements. Those transferring from other institutions must have 2.5 cumulative and University of Missouri (UM) GPAs. Intra-university transfers can enter Bloch School programs with a 2.25 UM GPA. All students are required to maintain a 2.25 cumulative University of Missouri GPA while enrolled in this program.

Program Requirements
The Bloch School requires a minimum of 123 credit hours to earn the Bachelor of Science in Accounting degree. This total includes course work in the following areas: General Education, Electives, Basic Skills, Accounting and Business Requirements.

See the Bloch School Undergraduate Policies and Procedures section (link to http://catalog.umkc.edu/colleges-schools/henry-w-bloch-management/undergraduate-programs/undergraduate-policies-procedures/) for additional information.

Upon graduation from the B.S.A. program, a student will have the skill set and professional mindset needed to perform in entry-level financial accounting, taxation, cost management and auditing positions.

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Anchor II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Anchor III</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
Bachelor of Science in Accounting

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied by the Constitution course requirement below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus Elective (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits: 21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions."

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits: 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

Basic Skills Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTNG 210</td>
<td>Introduction To Financial Accounting (Includes Lab)</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 211</td>
<td>Introduction To Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ECON 201</td>
<td>Introduction To Economics I (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>ECON 202</td>
<td>Introduction To Economics II (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or ALEKS score of 61 or higher; Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 206</td>
<td>Brief Calculus And Matrix Algebra</td>
<td>3</td>
</tr>
<tr>
<td>STAT 235</td>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits: 21

Major Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTNG 306</td>
<td>Introduction to the Accounting Profession and Procedures</td>
<td>3</td>
</tr>
</tbody>
</table>

Accounting Core Requirements - Junior Year
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTNG 307</td>
<td>Cost Management</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 310</td>
<td>Intermediate Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 311</td>
<td>Intermediate Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 350</td>
<td>Accounting Systems And Controls</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 360</td>
<td>Accounting Research and Communications</td>
<td>3</td>
</tr>
<tr>
<td>DSOM 309</td>
<td>Intermediate Business Statistics</td>
<td>3</td>
</tr>
<tr>
<td>DSOM 326</td>
<td>Production/Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>ECON 301</td>
<td>Macroeconomic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 302</td>
<td>Microeconomic Analysis</td>
<td></td>
</tr>
<tr>
<td>MGT 301</td>
<td>Effective Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>or MGT 301A</td>
<td>Effective Business Communication for Non-Native Speakers</td>
<td></td>
</tr>
<tr>
<td>MGT 330</td>
<td>Understanding the Individual in the Organization</td>
<td>3</td>
</tr>
<tr>
<td>MGT 370</td>
<td>International Management</td>
<td>3</td>
</tr>
<tr>
<td>or MGT 470</td>
<td>International Study in Business</td>
<td></td>
</tr>
<tr>
<td>MKT 324</td>
<td>Marketing Concepts</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Accounting Core Requirements - Senior Year</strong></td>
<td></td>
</tr>
<tr>
<td>ACCTNG 405</td>
<td>Auditing</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 412</td>
<td>Introduction to Income Taxation</td>
<td>3</td>
</tr>
<tr>
<td>ENT 460</td>
<td>Creating the Enterprise</td>
<td>3</td>
</tr>
<tr>
<td>FIN 325</td>
<td>Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 306</td>
<td>Legal, Ethical And Regulatory Environment Of Business</td>
<td>3</td>
</tr>
<tr>
<td>MGT 320</td>
<td>Law Of Commercial Transactions</td>
<td>3</td>
</tr>
<tr>
<td>MGT 471</td>
<td>Strategic Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Advanced Finance courses, choose one from:</strong></td>
<td>3</td>
</tr>
<tr>
<td>FIN 340</td>
<td>Global Financial Markets and Institutions</td>
<td></td>
</tr>
<tr>
<td>FIN 345</td>
<td>Investments</td>
<td></td>
</tr>
<tr>
<td>FIN 419</td>
<td>Financial Statement Analysis</td>
<td></td>
</tr>
<tr>
<td>FIN 428</td>
<td>Commercial Bank Management</td>
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<tr>
<td>FIN 435</td>
<td>Advanced Corporate Finance</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Accounting Specialization (Select a two course sequence)</strong></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>CPA Sequence (Certified Public Accountant Preparation)</strong></td>
<td></td>
</tr>
<tr>
<td>ACCTNG 420</td>
<td>Advanced Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCTNG 421</td>
<td>Governmental/Not-For-Profit Accounting</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>CIA Sequence (Certified Internal Auditor Preparation)</strong></td>
<td></td>
</tr>
<tr>
<td>ACCTNG 464</td>
<td>Principles of Internal Auditing</td>
<td></td>
</tr>
<tr>
<td>and one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCTNG 418</td>
<td>Data Analytics for Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCTNG 420</td>
<td>Advanced Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCTNG 421</td>
<td>Governmental/Not-For-Profit Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCTNG 470</td>
<td>Fraud Auditing</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>CFE Sequence (Certified Fraud Examiner Preparation)</strong></td>
<td></td>
</tr>
<tr>
<td>ACCTNG 470</td>
<td>Fraud Auditing</td>
<td></td>
</tr>
<tr>
<td>and one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCTNG 418</td>
<td>Data Analytics for Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCTNG 420</td>
<td>Advanced Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCTNG 421</td>
<td>Governmental/Not-For-Profit Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCTNG 464</td>
<td>Principles of Internal Auditing</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>CMA Sequence (Certified Management Account Preparation)</strong></td>
<td></td>
</tr>
<tr>
<td>select two from the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCTNG 418</td>
<td>Data Analytics for Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCTNG 420</td>
<td>Advanced Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCTNG 421</td>
<td>Governmental/Not-For-Profit Accounting</td>
<td></td>
</tr>
</tbody>
</table>
Bachelor of Science in Accounting

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTNG 464</td>
<td>Principles of Internal Auditing</td>
<td></td>
</tr>
<tr>
<td>ACCTNG 470</td>
<td>Fraud Auditing</td>
<td></td>
</tr>
<tr>
<td>CISA (Certified Information Systems Auditor Sequence)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCTNG 418</td>
<td>Data Analytics for Accounting</td>
<td></td>
</tr>
</tbody>
</table>

and choose one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTNG 420</td>
<td>Advanced Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCTNG 421</td>
<td>Governmental/Not-For-Profit Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCTNG 464</td>
<td>Principles of Internal Auditing</td>
<td></td>
</tr>
<tr>
<td>ACCTNG 470</td>
<td>Fraud Auditing</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 69

Note: Students should ensure that prerequisites are taken in the proper sequence.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minimum GPA: 2.25 (Major; Univ of MO)</td>
<td>9</td>
</tr>
</tbody>
</table>

Total Credit Hours: 123

Electives

Students will take electives to bring their program total to 123 credit hours. The number of hours required will vary based on selections made to satisfy general education requirements and will generally range from 9-15 hours. Electives can be used to pursue a minor or can be individually-selected courses to build a specific skill set or explore a particular interest. Students can have no more than 2 credit hours of physical education activity course work. Additionally, remedial courses, military science classes and vocational course work will not apply.

Graduation Requirements

All students must satisfactorily complete the RooWriter before enrolling in MGT 301 or MGT 301A. Information regarding the RooWriter is available at https://net3.umkc.edu/intapps/RooWriter/logon.aspx.

The BS Accounting degree will be awarded on satisfaction of the following:

1. Completion of the degree requirements and a minimum of 123 credit hours.
2. Achievement of a 2.25 GPA; satisfactory academic standing is based on:
3. Cumulative GPA of 2.25 for all University of Missouri courses; and
4. GPA of 2.25 for all required junior-and senior-level in-major courses completed at UM schools.
5. Completion of 50% of junior/senior in-major courses at UMKC. Additionally, accounting students must complete at least 15 hours of upper-level accounting courses at UMKC.
6. Completion of the RooWriter, the ETS Proficiency Profile and other assessment exercises assigned by the Bloch faculty.
7. Completion of the Constitution requirement.
8. Filing of a required application for graduation at the beginning of the senior year.

Students are responsible for ensuring their course of study falls within program guidelines.

Tools for Planning and Fulfilling Academic Requirements

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.
UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Business Administration Minors

Students interested in business may complete a minor in either business administration or entrepreneurship. The minors are open to degree-seeking undergraduate students, with the exception of students pursuing a degree in programs that do not recognize minors. Additionally, students pursuing a degree in business or accounting are not eligible for the minor in Business Administration.

Students must achieve a minimum GPA of 2.25 in all Bloch School courses. Transfer students with equivalent course credit will be required to take a more advanced course in that same area. Students are limited to 30 hours of coursework in the Bloch School. All coursework toward the minors must be completed at UMKC.

Students interested in the Business Administration or Entrepreneurship minors should contact staff in the Bloch School Student Services Office, room 115, Bloch Heritage Hall.

Business Administration Minor

Student Learning Outcomes

Students graduating from this program will:

• Demonstrate technical competence in domestic and global business through the study of major disciplines within the fields of business.
• Define, analyze and devise solutions for structured and unstructured business problems and issues by using cohesive and logical reasoning patterns for evaluating information, materials and data.
• Conceptualize a complex issue into a coherent written statement and oral presentation.
• Exhibit competence in the uses of technology in modern organizational operations.
• Demonstrate the fundamentals of creating and managing innovation, new business development and high-growth potential entities.

Program Requirements

The minor consists of the following coursework and is subject to the student satisfying all applicable prerequisites.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required for Admission to the Business Minor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or ALEKS score of 61 or higher)</td>
<td>3</td>
</tr>
<tr>
<td>MIS 202</td>
<td>Computer Applications In Management</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 210</td>
<td>Introduction To Financial Accounting (Includes Lab)</td>
<td>3</td>
</tr>
<tr>
<td>Required Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MKT 324</td>
<td>Marketing Concepts</td>
<td>3</td>
</tr>
<tr>
<td>FIN 325</td>
<td>Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 330</td>
<td>Understanding the Individual in the Organization</td>
<td>3</td>
</tr>
<tr>
<td>Business Elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENT 315</td>
<td>Entrepreneurial Mindset and Opportunity Recognition (or one 300/400 level Bloch School course.)</td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>21</td>
</tr>
</tbody>
</table>

Entrepreneurship Minor

Student Learning Outcomes

Students graduating from this program will:

• Demonstrate technical competence in domestic and global business through the study of major disciplines within the fields of business.
• Define, analyze and devise solutions for structured and unstructured business problems and issues by using cohesive and logical reasoning patterns for evaluating information, materials and data.
• Conceptualize a complex issue into a coherent written statement and oral presentation.
• Exhibit competence in the uses of technology in modern organizational operations.
• Demonstrate the fundamentals of creating and managing innovation, new business development and high-growth potential entities.

Program Requirements

The Entrepreneurship minor is designed to help students acquire and refine their entrepreneurial skills. The minor is intended both for Bloch School accounting students and for students outside of the Bloch School who would like to bring an entrepreneurial perspective to their major field of study. Bachelor of Business Administration students are not eligible because of the availability of an Entrepreneurship emphasis within their degree program.
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT 301</td>
<td>Entrepreneurship Toolkit (Spring 2019)</td>
<td>3</td>
</tr>
<tr>
<td>ENT 315</td>
<td>Entrepreneurial Mindset and Opportunity Recognition</td>
<td>3</td>
</tr>
<tr>
<td>ENT 327</td>
<td>Designing the Business Model</td>
<td>3</td>
</tr>
<tr>
<td>ENT 412</td>
<td>Entrepreneurial Finance</td>
<td>3</td>
</tr>
<tr>
<td><strong>Entrepreneurship Electives</strong></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>ENT 332</td>
<td>Managing the New Venture: Experiential Learning</td>
<td></td>
</tr>
<tr>
<td>ENT 341</td>
<td>Technology Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>ENT 361</td>
<td>New Product Development</td>
<td></td>
</tr>
<tr>
<td>ENT 364</td>
<td>Entrepreneurial Management and Innovation</td>
<td></td>
</tr>
<tr>
<td>ENT 432</td>
<td>Entrepreneurial Marketing and Selling</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits**: 18
Graduate Programs
Graduate Policies and Procedures

Admission Requirements

Admission to Bloch School graduate programs is based on evaluation of qualifications. Applicants to the MBA, M.S. in finance (M.S.F.), M.S. in Entrepreneurial Real Estate and M.S. in accounting (M.S.A.) programs are considered for admission based on their scores on the Graduate Management Admission Test (GMAT), undergraduate cumulative grade point averages and other criteria established by the faculty. M.E.R.E. will consider certain professional designations in lieu of the GMAT. The GMAT is waived for M.S. in Entrepreneurial Real Estate applicants with a 3.5 undergraduate cumulative grade point average.

Applicants to the M.P.A. program are considered for admission on the basis of undergraduate cumulative grade point average and Graduate Record Examination (GRE) scores. However, the requirement to complete the GRE is waived for applicants to the M.P.A. who have earned a cumulative undergraduate grade point average of 3.5 or higher (on a 4.0 scale).

Applicants to the Executive MBA (EMBA) and Executive M.P.A. (E.M.P.A.) programs are considered for admission based on educational record and career history, quality and length of professional and managerial experience, strength of personal interview and one written essay, two references and support of employer. A GMAT or GRE score is not required for applications to the executive programs, but may be requested by faculty.

Most classes are offered on weekday evenings. Selected courses may be offered in an intensive weekend format. EMBA and EMPA courses are offered on weekends (Friday/Saturday).

Retention and Graduation Requirements for Graduate Students

All students enrolled in any of the Bloch School graduate programs (MBA, EMBA, M.S.F., M.S. in Entrepreneurial Real Estate, M.S.A., M.P.A. and E.M.P.A.) must maintain a minimum 3.0 grade point average (GPA) in all courses for which graduate credit is given. Students with GPAs that fall below the minimum 3.0 are placed on probation and are allowed two successive semesters (including the summer semester, if enrolled) to restore their GPAs to the required 3.0 level. While on probation, graduates must achieve a 3.0 term GPA in order to enroll for the ensuing term. If a student's term GPA is below a 3.0 or, if after two successive semesters, the cumulative GPA is below a 3.0, the student will be dismissed from the Bloch School.

Eighty percent of the credits for the degree must be passed with a grade of B (3.0) or better. GPA. Good standing is achieved only if the GPA is 3.0 or above. No course with a grade below B- (2.7), in any 300- or 400-level course, or below C (2.0) in any 5000-level course or above, will count toward any advanced degree program; however, the grade will be included in the calculation of the student's GPA.

MBA students must file an official program of study with the MBA Programs Office once an emphasis area has been declared. For the M.P.A. program, this must occur once a student has reached 18 hours. In the M.S.A., M.S.F. and M.S. in Entrepreneurial Real Estate, students should submit a program of study when reaching the 50% completion point in their degree programs. This form constitutes a contract and must be signed by the student, faculty advisor and department chair. Any changes to the program must be approved on a new form by the same three individuals. Students are responsible for ensuring their program of study falls within the program guidelines.

All students must file an application for graduation and program of study by the announced campus deadline during the student’s last semester (students are encouraged to submit these forms earlier if possible). This application and the program of study must be filed by the announced deadline in order to obtain the degree. Both documents can be found on the Bloch School Web site at http://bloch.umkc.edu/students/graduation.aspx.

Transfer Credit

Students may petition to transfer up to 6 hours of graduate credit into their program. Coursework must be from an accredited institution, with a grade of B or better, and appropriate to the student’s program. Also, the coursework must have been taken within seven years of completion of all requirements for the Bloch School degree. Credit must not be more than seven years old at the time of graduation. Evaluation of transfer credit is done by faculty and requires documentation provided by the student.

Course Repeat Policy

Whenever students repeat a graduate-credit course, they must submit a course repeat form to the Bloch School Student Services Office or the MBA Programs Office no later than the fourth week of the term. Students seeking graduate degrees are limited to repeating no more than 20 percent of the credits applicable toward a graduate degree. If approved by the school or department or Interdisciplinary Ph.D. supervisory committee, students may repeat a course once to improve their GPA or satisfy the program requirements. The second grade received will be used to calculate the GPA that will be used in satisfying degree requirements.

Independent Study

Students are limited to no more than six hours of independent study/internship and no more than three hours of any one practicum, including the small business practicum. For the M.P.A. program, students are limited to a total of six hours, of which three credit hours can be an internship. Interested students should consult with their advisor or staff in the Bloch School Student Services Office.
Graduate Certificate in Nonprofit Management and Innovation

Student Learning Outcomes

Students graduating from this program will:

• Lead and manage nonprofit organizations and programs effectively and in entrepreneurial and innovative ways.
• Engage in sophisticated decision making to effectively address the long term needs and interests of communities, organizations, and their stakeholders.
• Effectively engage, interact, and communicate, verbally and in writing, with diverse constituencies and audience.

Graduate Certificate in Nonprofit Management and Innovation

The Department of Public Affairs offers an 18 credit hour professional Graduate Certificate in Nonprofit Management and Innovation. This certificate may be earned alone or in combination with another graduate degree at UMKC and is especially appropriate for those who aspire to a successful career leading and managing nonprofit and community-based organizations.

Admission requirements are the same as those required for admission to the department’s regular M.P.A. program. Those who are students in good standing in a UMKC graduate degree program and who have completed at least nine hours of graduate credit with a minimum of a 3.5 GPA are eligible to participate in this certificate program without meeting any additional admission requirements.

Curriculum for the Nonprofit Management and Innovation Certificate:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUB-ADM 455B</td>
<td>Non-Profit Leadership Issues: Board-Staff Relations</td>
<td>1</td>
</tr>
<tr>
<td>PUB-ADM 5526</td>
<td>The Politics Of Administration</td>
<td>3</td>
</tr>
<tr>
<td>PUB-ADM 5548</td>
<td>Leadership For Public Service</td>
<td>3</td>
</tr>
<tr>
<td>PUB-ADM 5551</td>
<td>Strategic Management In Nonprofit Organizations</td>
<td>3</td>
</tr>
<tr>
<td>PUB-ADM 5553</td>
<td>Legal Framework &amp; Financial Management Of Nonprofit Organizations</td>
<td>3</td>
</tr>
<tr>
<td>PUB-ADM 5555A</td>
<td>Topics In Nonprofit Fund Raising: Organizing For Successful Fund Raising</td>
<td>2</td>
</tr>
</tbody>
</table>

Select at least one of the following:

- PUB-ADM 5554 Seminar on Social Entrepreneurship
- PUB-ADM 5556 Innovation In Nonprofit Management And Leadership
- PUB-ADM 5559 Voluntarism, Philanthropy, and the Nonprofit Sector

Total Credits 18
Graduate Certificate in Urban Policy Administration

Student Learning Outcomes

Students graduating from this program will:

- Lead and manage nonprofit and governmental urban organizations and programs that exist to meet the needs of their urban communities effectively and in entrepreneurial and innovative ways.
- Engage in sophisticated decision making to effectively address the long term needs and interests of communities, organizations, and their stakeholders.
- Engage, interact, and effectively communicate, verbally and in writing, with diverse constituencies and audiences.

Graduate Certificate in Urban Policy and Administration

The Department of Public Affairs offers an 18 credit hour professional Graduate Certificate in Urban Policy and Administration. This certificate may be earned alone or in combination with another graduate degree at UMKC and is especially appropriate for those who aspire to a successful career leading and managing local and regional government or community-based nonprofit organizations.

Admission requirements are the same as those required for admission to the department's regular M.P.A. program. Those who are students in good standing in a UMKC graduate degree program and who have completed at least nine hours of graduate credit with a minimum of a 3.5 GPA are eligible to participate in this certificate program without meeting any additional admission requirements.

Curriculum for the Urban Policy and Administration Certificate:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUB-ADM 5526</td>
<td>The Politics Of Administration</td>
<td>3</td>
</tr>
<tr>
<td>PUB-ADM 5535</td>
<td>Urban Policy And Administration</td>
<td>3</td>
</tr>
<tr>
<td>PUB-ADM 5539</td>
<td>Urban Planning for Public Administrators</td>
<td>3</td>
</tr>
<tr>
<td>PUB-ADM 5540</td>
<td>Metropolitan Governance</td>
<td>3</td>
</tr>
<tr>
<td>PUB-ADM 5548</td>
<td>Leadership For Public Service</td>
<td>3</td>
</tr>
</tbody>
</table>

Select at least one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUB-ADM 5536</td>
<td>Managing Urban Economic Development</td>
<td></td>
</tr>
<tr>
<td>PUB-ADM 5552</td>
<td>Community Organizations And Public Policy</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 18
Master of Business Administration

Student Learning Outcomes

Students graduating from this program will:

• Define, analyze, and evaluate business decisions in a global setting through an integrated analysis using tools found in the major business disciplines.
• Effectively demonstrate critical thinking skills in inference, analysis, and evaluation.
• Demonstrate the ability to work in teams.
• Conceptualize a complex issue into a coherent written statement and/or oral presentation.
• Demonstrate mastery of fundamental quantitative tools by successfully using those tools to interpret and evaluate quantitative information and synthesize that information with relevant non-quantitative information in order to arrive at a business decision.

Program Requirements

The Bloch School offers a Professional (part-time) master of business administration (P MBA (http://bloch.umkc.edu/pmba)), and an executive master of business administration (EMBA (http://bloch.umkc.edu/emba)).

The Professional MBA Curriculum

The PMBA degree is a 39 credit hour program. The curriculum is comprised of two distinct stages: core classes and elective/emphasis classes.

The program has the following unique features that are combined to develop graduates that are broadly educated, socially responsible, and knowledgeable managers.

1. A 27 credit hour core curriculum that provides an integrative business foundation for decision-making.
2. A 12 credit hour emphasis/elective component that allows students the flexibility to design a program that uniquely fits their needs, including the option to complete 9 - 12 hours toward a specific emphasis area.
3. Students who have earned a bachelor's degree in business or accounting and/or have relevant work experience may waive up to six credit hours of the core related to these experiences. The specific courses waived will be determined in consultation with the MBA Program advisor. This could reduce the core to 21 credit hours and the MBA degree to a 33 credit hour program.

The MBA Core (27 credit hours)

The MBA degree consists of a 27 credit hour core. The core must be taken by all students enrolled in the program and is designed to provide graduates with a unique educational experience. The core is designed to provide all students with a critical business foundation. Core courses include the following:

- Financial Accounting for Decision Making
- Business Analytics
- Marketing Management
- Financial Management
- Leading and Managing People
- Supply Chain & Operations Management
- Management in Context
- Corporate Entrepreneurship and Innovation
- Strategic Management in the Globalized World

Electives and Emphasis Areas (12 hours)

The MBA program allows students the flexibility of using 12 credit hours to meet their unique needs. Elective courses may make up the entire 12 hours or students can use 9 - 12 hours to obtain an emphasis. If a 9 hour emphasis is selected the student will be left with 3 hours for an elective. The Bloch School offers the following emphasis areas:

• Entrepreneurship
• Finance
• General Management
• International Business
Students are not required to complete an emphasis area. Each emphasis area is comprised of 12 hours.

Students can, with the consent of appropriate faculty, select any other Bloch courses that might fit within the emphasis areas listed below (courses outside the Bloch School require special approval). Students are strongly encouraged to work closely with an adviser in planning their programs so that the courses they choose will be of interest and benefit to them while fulfilling the requirements of the degree. Not all classes are offered each semester. Emphasis areas follow.

### Entrepreneurship and Innovation

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT 5527</td>
<td>Creating the New Venture Experiential Learning</td>
<td>3</td>
</tr>
<tr>
<td>ENT 5532</td>
<td>Managing the New Venture Experiential Learning</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Electives

Select two of the following:

- ENT 5525 | Entrepreneurship: Managing Creativity And Innovation       | 6       |
- ENT 5535 | Small Business Management And Entrepreneurship             |         |
- ENT 5545 | Entrepreneurship And New Venture Creation                 |         |
- ENT 5552 | Entrepreneurial Marketing                                 |         |
- ENT 5571 | Advanced Real Estate Finance                              |         |
- ENT 5585 | Entrepreneurial Finance and Venture Capital Investment    |         |
- ENT 5587 | Special Topics                                             |         |
- ENT 5591 | Small Business Management Practicum                        |         |

Total Credits: 12

### Finance

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 5550</td>
<td>Advanced Financial Management Theory And Policies</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Electives

Select three of the following:

- FIN 5551 | International Financial Management                        | 9       |
- FIN 5570 | Introduction to Personal Financial Planning               |         |
- FIN 5571 | Retirement Planning and Employee Benefits                 |         |
- FIN 5572 | Income Tax Planning                                       |         |
- FIN 5573 | Estate Planning                                           |         |
- FIN 5566 | Financial Plan Development                                 |         |
- FIN 5552 | Global Financial Markets and Institutions                 |         |
- FIN 5553 | Investment Analysis                                       |         |
- FIN 5556 | Management Of Financial Intermediaries                    |         |
- FIN 5557 | Derivative Securities                                     |         |
- FIN 5559 | Strategic Financial Management                             |         |
- FIN 5560 | Financial Modeling                                        |         |
- FIN 5561 | Financial Statement Analysis                               |         |
- FIN 5562 | Fixed Income Analysis                                     |         |
- FIN 5563 | Valuation/Mergers and Acquisitions                        |         |
- FIN 5564 | Portfolio Management                                      |         |
- FIN 5565 | Alternative Investments                                   |         |
- FIN 5567 | Payment Systems                                           |         |
### General Management

One course from four among the following nine areas:

- **Entrepreneurship**: see emphasis area listing
- **Finance**: see emphasis area listing
- **International Business**: see emphasis area listing
- **Law & Society**: MGT 5506
- **Leading and Managing People**: see emphasis area listing
- **Management Information Systems**: see emphasis area listing
- **Marketing**: see emphasis area listing
- **Strategy & Planning**: MGT 5513
- **Supply Chain and Operations Management**: see emphasis area listing

### International Business

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 5545</td>
<td>International Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Select three of the following:</td>
<td>9</td>
</tr>
<tr>
<td>DSOM 5544</td>
<td>Global Supply Chain and Logistics Management</td>
<td></td>
</tr>
<tr>
<td>FIN 5551</td>
<td>International Financial Management</td>
<td></td>
</tr>
<tr>
<td>FIN 5552</td>
<td>Global Financial Markets and Institutions</td>
<td></td>
</tr>
<tr>
<td>MGT 5546</td>
<td>Seminar in International Management</td>
<td></td>
</tr>
<tr>
<td>MGT 5552</td>
<td>International Study in Business (a maximum of 3 hours can apply to the emphasis; additional hours may count toward electives)</td>
<td></td>
</tr>
<tr>
<td>MKT 5555</td>
<td>International Marketing</td>
<td></td>
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</tbody>
</table>

### Leading and Managing People

Select 12 hours from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 5516</td>
<td>Leading Teams</td>
<td>12</td>
</tr>
<tr>
<td>MGT 5517</td>
<td>Leading Through Influence and Persuasion</td>
<td></td>
</tr>
<tr>
<td>MGT 5518</td>
<td>Leadership &amp; Motivation</td>
<td></td>
</tr>
<tr>
<td>MGT 5519</td>
<td>Conflict Management and Negotiation Strategies</td>
<td></td>
</tr>
<tr>
<td>MGT 5533</td>
<td>Leading and Managing Change</td>
<td></td>
</tr>
<tr>
<td>MGT 5566</td>
<td>Attracting, Retaining, and Developing Human Capital</td>
<td></td>
</tr>
<tr>
<td>MGT 5567</td>
<td>Total Rewards Management</td>
<td></td>
</tr>
<tr>
<td>PUB-ADM 5548</td>
<td>Leadership For Public Service</td>
<td></td>
</tr>
<tr>
<td>PUB-ADM 5570</td>
<td>Diversity In The Workplace</td>
<td></td>
</tr>
</tbody>
</table>

### Management of Information Systems

Select four of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTNG 5565</td>
<td>Advanced Accounting Systems</td>
<td>12</td>
</tr>
<tr>
<td>ACCTNG 5567</td>
<td>Information Systems Control And Audit</td>
<td></td>
</tr>
<tr>
<td>MIS 5529</td>
<td>Decision Support Systems</td>
<td></td>
</tr>
</tbody>
</table>
Select additional elective courses from the following:
- DSOM 5543: Project Management
- DSOM 5544: Global Supply Chain and Logistics Management

Total Credits: 12

### Marketing

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MKT 5575</td>
<td>Advanced Marketing Strategy</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>MKT 5539</td>
<td>Digital (and Direct) Marketing</td>
<td></td>
</tr>
<tr>
<td>MKT 5555</td>
<td>International Marketing</td>
<td></td>
</tr>
<tr>
<td>MKT 5560</td>
<td>Buyer Behavior</td>
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<tr>
<td>MKT 5561</td>
<td>Promotional Strategies In Marketing</td>
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</tr>
<tr>
<td>MKT 5562</td>
<td>Marketing Research</td>
<td></td>
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</tbody>
</table>

Total Credits: 12

### Real Estate

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RL-EST 5556</td>
<td>Entrepreneurial Real Estate Process</td>
<td>3</td>
</tr>
<tr>
<td>RL-EST 5571</td>
<td>Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td>RL-EST 5578</td>
<td>Legal Context of Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>RL-EST 5572</td>
<td>Global Real Estate</td>
<td></td>
</tr>
<tr>
<td>RL-EST 5573</td>
<td>Real Estate Feasibility and Market Analysis</td>
<td></td>
</tr>
<tr>
<td>RL-EST 5574</td>
<td>Real Estate Construction and Development</td>
<td></td>
</tr>
<tr>
<td>RL-EST 5576</td>
<td>Real Estate Property and Portfolio Management</td>
<td></td>
</tr>
<tr>
<td>RL-EST 5577</td>
<td>Real Estate Valuation</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 12

### Supply Chain and Operations Management

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DSOM 5540</td>
<td>Service Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>DSOM 5543</td>
<td>Project Management</td>
<td>3</td>
</tr>
<tr>
<td>DSOM 5544</td>
<td>Global Supply Chain and Logistics Management</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCTNG 5556</td>
<td>Cost Management</td>
<td></td>
</tr>
<tr>
<td>DSOM 5587</td>
<td>Special Topics (Strategic Sourcing Supplier Management)</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 9

Note: Students should ensure that prerequisites are taken in the proper sequence.

### Combined J.D./MBA Program

The Bloch School and UMKC School of Law offer the combined J.D. and MBA program. Students must satisfy the admission and degree requirements for the J.D. program as well as for the PMBA program, with one exception: JD/MBA students are waived from the MGT 5504 course (Legal and Ethical
Executive MBA Program

Student Learning Outcomes

Graduates of the Bloch School’s EMBA program will gain the business knowledge skills needed to excel as executives, entrepreneurs, and leaders. The EMBA graduate will:

• Apply strategic frameworks to complex business issues and identify viable options and forward-looking strategies, through the integrated analysis of multiple functional perspectives - e.g. marketing, product development/service delivery, finance, operations, and human capital.
• Demonstrate enhanced understanding of complex public sector systems, processes and leaders, and identify and define the various forces that shape and impact business policy.
• Demonstrate the skills needed to generate creative solutions that address unmet needs and wants, evaluate the relative attractiveness of competing solutions, and organize to exploit opportunities in the marketplace.
• Utilize a knowledge framework to 1) critically think about and assess the impact and linkage of global influences, issues, trends, and decisions in business models; and 2) demonstrate insight and agility in operating within a global business environment.
• Demonstrate the communication and interpersonal skills needed for effective collaboration and creative problem-solving, as well as the versatility to add value in a variety of team roles - leader, expert, facilitator, etc.
• Demonstrate the ability to 1) diagnose complex business situations, recognizing key issues, tensions and dilemmas; and 2) articulate decisions and action plans that reflect comprehensive understanding of the human, political and cultural context as well as nuanced ways of building influence and support.

The Bloch Executive MBA (EMBA) is a highly-selective degree program for experienced professionals. The program offers a comprehensive integrated curriculum, field experiences, and four residencies. It is distinguished by an emphasis on cohort-learning, teamwork, hands-on projects, leadership coaching and development, and learning activities that contribute substantial value to participants, employers, and the broader community.

Students are admitted each year to a new EMBA cohort through a special application process. Students begin coursework in mid-August, and program completion requires 21 months.

The program is composed of 16 semester-long, graduate-level courses and of four week-long immersion residencies that are focused on leadership, innovation, public policy, and the global marketplace. A variety of teaching formats are employed, including case studies, group projects, simulations and role playing, fieldwork, interactive discussions, and renowned guest lecturers. Daylong classes meet three days per month (one Friday/ Saturday and one additional Saturday). Classes do not meet in June and July. To ensure that all students are up to speed on academic and business basics, the program starts with required orientation and an introduction to key subject areas, such as finance, accounting, and statistics.

Admissions Requirements

The EMBA is designed for experienced professionals who possess an undergraduate degree from an accredited university and a minimum of 8 years of work experience with growing responsibilities for managing people, projects, and/or budgets. Admissions decisions are based on a combination of a solid academic record, demonstrated professional achievement, and evidence of a strong commitment to learning and to career and professional development. Further information on the Bloch EMBA program is available at (816) 235-6071 or at the program’s web site http://bloch.umkc.edu/emba.

The Curriculum

Leadership Residency introduces students to fundamentals of business, organizational behavior, leadership, and teamwork.

Semester 1

• Financial Reporting Systems introduces generally accepted accounting principles and concepts along with the preparation and analysis of financial statements.
• Operations Management for World Class Competitiveness explores the basic principles and strategic use of managing the production and distribution of goods and services.
• Leadership and Organizations focuses on how organizations work and how leaders can set direction, marshal resources, and build support to move initiatives forward.
• Managerial Economics studies the relationship between the economic theory and system as a whole and the ways in which both are affected by the behavior of the interdependent sectors of which they are composed.

Semester 2

• Marketing Management examines the role of marketing in driving profitable revenue growth in companies.
• Organizational Finance gives students a thorough introduction to financial management that blends appropriate amounts of relevant theory with practical application.
• **Applied Statistical Methods** investigates the use of detailed sample data for purposes of estimating, predicting, forecasting, and explaining correlations among varied observations.

• **Public Policy Context for Business Decisions** provides intensive exposure to the forces, practices, and personalities in Washington that shape America’s business policy. The course includes the required 5 day *Washington, D.C. Residency* to expand student understandings of the role of social leadership in the development of business policies, practices and processes.

**Innovation Residency**

• **Entrepreneurship and Innovation Immersion** is a 5-day, required, immersion residency that gives students a grounded understanding of how to identify and evaluate business opportunities. Students engage in a set of business cases assembled to illuminate key concepts in Innovation. An engaging, live business case from an area organization is used to provide a comprehensive learning experience for students to apply their lessons on innovation as well as their learning from the first semester.

**Semester 3**

• **Leadership Accountability and the Legal Implications** highlights the full meaning of leadership accountability and of the legal challenges leaders face in a rapidly changing global world.

• **Influence, Persuasion and Change** presents ideas, strategies and tools for leading change in complex organizations and for defining an ethical approach to leading, influencing, and persuading others.

• **Strategic Management** examines the principles essential for the formulation and evaluation of strategy including industry analysis, strategic positioning, and the boundaries of the firm. The course also addresses the capacity of executive leadership to innovate and to create new or added values, as well as their responsibility for developing and communicating a clear vision and direction for a company’s future.

• **Information Technology as a Strategic Tool** examines the critical linkage among an organization’s business, culture, and information technology strategies and provides essential knowledge and frameworks for enhancing the IT role in innovation, change, and continuous organizational learning.

**Semester 4**

• **Global Initiatives in Management** explores key, contemporary international business issues for leaders and for organizations in today’s global economy and includes a required, 11 day, international residency experience in a major business center abroad.

• **Integrated Business Strategies - Capstone Course** explores critical factors involved in effective decision making, in organizational governance, and in developing the broad enterprise leadership perspective needed for effective executive planning and action.

• **Leadership, Strategy and Human Resources** focuses on the leader as a catalyst in developing high-performance, market-based cultures and as a human resources strategist in marshaling the workforce toward productive ends.

The fourth course in the final semester is a student’s choice from among two electives:

• **Innovation and Entrepreneurship** explores the creative, entrepreneurial, and managerial processes involved in moving from a concept to the development of a new business and provides students hands-on opportunities to convert a dream into a high-growth business. *-or-

• **Advanced Topics in Finance** builds on the previous finance course in the program and delves deeper into topics such as valuation, enterprise risk management, securities and investments, regulatory frameworks, and corporate governance.
Master of Public Administration

Student Learning Outcomes

Students graduating from this program will:

• Lead and manage in public service organizations and settings in entrepreneurial and innovative ways.
• Engage in sophisticated decision making, grounded in disciplined analytical and critical thought, to effectively address the long term needs and interests of communities, organizations and their stakeholders.
• Understand the process as well as content dimensions of problem analysis and resolution and make effective use of state-of-the-art administrative and management practices and methods, including the effective use of technology.
• Communicate effectively, verbally and in writing.
• Exhibit competence in understanding and addressing the ethical dimensions of public service leadership and management.
• Understand the wide variation that exists in the principles, cultures, and practices of organizations and communities from different parts of the world, and the implications of this variation for effective public service leadership.
• Understand the value of diversity and inclusion and exhibit competence in ethical, effective, culturally competent leadership and management.
• Demonstrate self-confidence and capacity to deal with dynamic, complex, and ambiguous community problems and issues.
• Have the capacity to work effectively in collaboration with others through teams, alliances, and networks to achieve results.

Student Learning Outcomes

The Master of Public Administration program prepares entrepreneurial and innovative public service leaders and executives to be effective and successful in an increasingly complex and dynamic world. Public service offers a career filled with excitement, challenge and significance. Career opportunities are numerous, ranging from employment in local, state, national and international governmental and quasi-governmental agencies to employment in health care and nonprofit and nongovernmental organizations. Never has there been a time of greater opportunity for public service leaders and executives who can apply their knowledge and skills to the most important of leadership and management challenges confronting their organizations and communities. The Master of Public Administration (M.P.A.) degree and related certificate programs in Nonprofit Management and Innovation and Urban Policy and Administration are offered through the Department of Public Affairs.

Graduates of the Henry W. Bloch School of Management M.P.A. program have the knowledge and skills necessary to effectively and ethically lead and manage dynamic public service organizations. Specifically, M.P.A. graduates are prepared to:

• Lead and manage in public service organizations and settings in entrepreneurial and innovative ways.
• Engage in sophisticated decision making, grounded in disciplined analytical and critical thought, to effectively address the long term needs and interests of communities, organizations and their stakeholders.
• Understand the process as well as content dimensions of problem analysis and resolution and make effective use of state-of-the-art administrative and management practices and methods, including the effective use of technology.
• Communicate effectively, verbally and in writing.
• Exhibit competence in understanding and addressing the ethical dimensions of public service leadership and management.
• Understand the wide variation that exists in the principles, cultures, and practices of organizations and communities from different parts of the world, and the implications of this variation for effective public service leadership.
• Understand the value of diversity and inclusion and exhibit competence in ethical, effective, culturally competent leadership and management.
• Demonstrate self-confidence and capacity to deal with dynamic, complex, and ambiguous community problems and issues.
• Have the capacity to work effectively in collaboration with others through teams, alliances, and networks to achieve results.

Program Requirements

The Curriculum

The M.P.A. degree will be awarded on successful completion of 42 semester hours, consisting of 24 hours of required core courses, 12 hours in a selected emphasis area and at least 6 hours of electives. An internship is required for any M.P.A. student who does not have prior work experience in public, nonprofit or health administration. Individual courses may be waived if a student presents evidence of significant relevant undergraduate study, but other graduate courses must be substituted to meet the minimum of 42 credit hours. Note: Students who repeat courses may not count the repeated course toward their degree.

Core Curriculum

The following courses are required for each student:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUB-ADM 5510</td>
<td>Research Methods In Public Administration</td>
<td>3</td>
</tr>
<tr>
<td>PUB-ADM 5525</td>
<td>Financial Accountability And Policy Development</td>
<td>3</td>
</tr>
</tbody>
</table>
Students selecting the health services administration emphasis have the following core requirements:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUB-ADM 5510</td>
<td>Research Methods In Public Administration</td>
<td>3</td>
</tr>
<tr>
<td>PUB-ADM 5526</td>
<td>The Politics Of Administration</td>
<td>3</td>
</tr>
<tr>
<td>PUB-ADM 5528</td>
<td>Supervision, Performance Leadership, &amp; Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>PUB-ADM 5548</td>
<td>Leadership For Public Service</td>
<td>3</td>
</tr>
<tr>
<td>HLTH-ADM 5580</td>
<td>Economics of Health and Medicine</td>
<td>3</td>
</tr>
<tr>
<td>or PUB-ADM 5541</td>
<td>Public Policy Development and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>HLTH-ADM 5571</td>
<td>Financial Management Issues: Health &amp; Human Services Organizations</td>
<td>3</td>
</tr>
<tr>
<td>or PUB-ADM 5525</td>
<td>Financial Accountability And Policy Development</td>
<td></td>
</tr>
<tr>
<td>HLTH-ADM 5578</td>
<td>The Evaluation And Control Of Health Services</td>
<td>3</td>
</tr>
<tr>
<td>or PUB-ADM 5544</td>
<td>Program Evaluation</td>
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</tr>
<tr>
<td>PUB-ADM 5530</td>
<td>Capstone Seminar In Public Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits: 24

Note: Students should ensure that prerequisites are taken in the proper sequence.

**M.P.A. Workshop Series (noncredit)**

The M.P.A. Workshop Series includes short workshops, programs, and noncredit seminars that are designed to enrich the breadth and depth of M.P.A. students' learning experiences and career success. These events address a wide array of topics, ranging from guest lectures on significant civic and public service issues, presented by prominent civic and community leaders, to programs, workshops and development programs in areas such as career planning and professional development, trends and applications associated with emerging technologies and software applications, and trends in professional practice.

All students in the M.P.A. and Executive M.P.A. programs are required to participate in a minimum of 4 separate Workshop Series events, for a total of at least 10 clock hours, during the course of their degree program. Students may attend as many events as they would like, and many Workshop Series events are open to alumni and the general public.

Examples of Workshop Series programs include:

- Excellence in Professional Writing
- Applications of GIS Technologies in Public Service Decision Making
- Career Development and Job Search Strategies
- Strategies for Navigating Politics in the Civic Environment

Students may also earn credit toward the 4 M.P.A. Workshop Series requirement through leadership involvement in community public service activities, if approved in advance by their M.P.A. degree program adviser.

**Electives (At least 6 hours)**

Elective courses may be selected from public administration, including courses in the student's chosen emphasis area. Courses may also be selected from political science, economics, psychology, sociology, management as well as from other graduate fields with approval of the faculty adviser. The Internship course (PUB-ADM 5595) is included in this category for M.P.A. students who elect to complete an internship as part of their degree program and M.P.A. students required to complete an internship (except for students in the Urban Policy and Administration emphasis, who may choose to include an internship course as one of their emphasis area courses).

**Emphasis Areas (12 hours)**

Students seeking the master of public administration degree may choose to specialize in three emphasis areas:

- Health Services Administration
• Nonprofit Management
• Urban Policy and Administration

A student may also tailor a general or specific program in order to meet individual talents, needs or job requirements. Such a program must be developed in consultation with and approved by a faculty adviser. Each course is worth three credits unless otherwise noted.

### Health Services Administration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
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</tr>
<tr>
<td>HLTH-ADM 5571</td>
<td>Financial Management Issues: Health &amp; Human Services Organizations 🔄</td>
<td>3</td>
</tr>
<tr>
<td>or HLTH-ADM 5580</td>
<td>Economics of Health and Medicine</td>
<td></td>
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<tr>
<td>HLTH-ADM 5581</td>
<td>Health Policy in the United States (Electives)</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>HLTH-ADM 5572</td>
<td>Quality and Safety in Healthcare (Electives)</td>
<td></td>
</tr>
<tr>
<td>HLTH-ADM 5573</td>
<td>Health and Social Equity</td>
<td></td>
</tr>
<tr>
<td>HLTH-ADM 5577</td>
<td>Health Service Administration And The Health Professions</td>
<td></td>
</tr>
<tr>
<td>HLTH-ADM 5578</td>
<td>The Evaluation And Control Of Health Services 🔄</td>
<td></td>
</tr>
<tr>
<td>HLTH-ADM 5586</td>
<td>Independent Study</td>
<td></td>
</tr>
<tr>
<td>HLTH-ADM 5587</td>
<td>Special Topics</td>
<td></td>
</tr>
<tr>
<td>HLTH-ADM 5580</td>
<td>Economics of Health and Medicine 🔄</td>
<td></td>
</tr>
<tr>
<td>or HLTH-ADM 5571</td>
<td>Financial Management Issues: Health &amp; Human Services Organizations</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 12

1 Students cannot count more than one HLTH-ADM course in both the core the emphasis area.

### Nonprofit Management

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 12 hours from the following:</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>PUB-ADM 455</td>
<td>Non-Profit Leadership Issues (1 hour)</td>
<td></td>
</tr>
<tr>
<td>PUB-ADM 5551</td>
<td>Strategic Management In Nonprofit Organizations 🔄</td>
<td></td>
</tr>
<tr>
<td>PUB-ADM 5552</td>
<td>Community Organizations And Public Policy</td>
<td></td>
</tr>
<tr>
<td>PUB-ADM 5553</td>
<td>Legal Framework &amp; Financial Management Of Nonprofit Organizations 🔄</td>
<td></td>
</tr>
<tr>
<td>PUB-ADM 5554</td>
<td>Seminar on Social Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>PUB-ADM 5555</td>
<td>Topics In Nonprofit Fundraising (1-2 hours each)</td>
<td></td>
</tr>
<tr>
<td>PUB-ADM 5556</td>
<td>Innovation In Nonprofit Management And Leadership 🔄</td>
<td></td>
</tr>
<tr>
<td>PUB-ADM 5559</td>
<td>Voluntarism, Philanthropy, and the Nonprofit Sector</td>
<td></td>
</tr>
<tr>
<td>PUB-ADM 5582</td>
<td>Developing and Managing the Nonprofit Social Enterprise</td>
<td></td>
</tr>
<tr>
<td>PUB-ADM 5585</td>
<td>Seminar In Public Affairs</td>
<td></td>
</tr>
<tr>
<td>PUB-ADM 5598A</td>
<td>Supervised Research: Nonprofit Management (1-3 hours)</td>
<td></td>
</tr>
<tr>
<td>HLTH-ADM 5571</td>
<td>Financial Management Issues: Health &amp; Human Services Organizations</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 12

1 Students choosing the nonprofit emphasis should choose at least six of their twelve emphasis area credit hours from among the following courses: ; PUB-ADM 5551, PUB-ADM 5553, PUB-ADM 5559 and PUB-ADM 5556.

### Urban Policy and Administration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PUB-ADM 5535</td>
<td>Urban Policy And Administration</td>
<td>3</td>
</tr>
<tr>
<td>PUB-ADM 5539</td>
<td>Urban Planning for Public Administrators</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Select six hours from the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PUB-ADM 5536</td>
<td>Managing Urban Economic Development</td>
<td></td>
</tr>
</tbody>
</table>
PUB-ADM 5540  Metropolitan Governance
PUB-ADM 5552  Community Organizations And Public Policy
PUB-ADM 5554  Seminar on Social Entrepreneurship
PUB-ADM 5565  Topics In Urban Administration
PUB-ADM 5581  Seminar In Urban Administration
PUB-ADM 5598C Supervised Research: Urban Administration (1-3 hours)

Total Credits 12

1 Students choosing the urban administration emphasis are allowed no more than three hours of internship to fulfill the emphasis area. Additional internship hours will count as electives.

The Executive M.P.A. Program

Students with at least five years of increasingly-responsible career and leadership experience may apply for the Executive M.P.A. (E.M.P.A.) degree program. This 30-month cohort-version of the M.P.A. program is designed to prepare experienced high-potential professionals and managers for executive and community leadership roles in government, nonprofit and health care organizations. The E.M.P.A. program includes a number of unique learning and professional development experiences and resources, including executive coaching, immersion courses, and issue-oriented residencies in locations such as Washington D.C. and Cape Town, South Africa. For more information about this option, please visit http://bloch.umkc.edu/graduate-program/empa/default.aspx.

Student Learning Outcomes

The Executive Master of Public Administration program, like the regular program, prepares entrepreneurial and innovative public service leaders and executives to be effective and successful in an increasingly complex and dynamic world. Graduates of the M.P.A. program have the knowledge and skills necessary to effectively and ethically lead and manage dynamic public service organizations. Specifically, M.P.A. graduates are prepared to:

• Lead and manage in public service organizations and settings in entrepreneurial and innovative ways.
• Engage in sophisticated decision making, grounded in disciplined analytical and critical thought, to effectively address the long term needs and interests of communities, organizations and their stakeholders.
• Understand the process as well as content dimensions of problem analysis and resolution and make effective use of state-of-the-art administrative and management practices and methods, including the effective use of technology.
• Communicate effectively, verbally and in writing.
• Exhibit competence in understanding and addressing the ethical dimensions of public service leadership and management.
• Understand the wide variation that exists in the principles, cultures, and practices of organizations and communities from different parts of the world, and the implications of this variation for effective public service leadership.
• Understand the value of diversity and inclusion and exhibit competence in ethical, effective, culturally competent leadership and management.
• Demonstrate self-confidence and capacity to deal with dynamic, complex, and ambiguous community problems and issues.
• Have the capacity to work effectively in collaboration with others through teams, alliances, and networks to achieve results.

The B.A. (Urban Affairs)/M.P.A. Program

Students obtaining a B.A. in Urban Affairs in the College of Arts and Sciences may pursue early admission to the master's degree program in public administration and obtain a master's degree in one additional year (three semesters). The program allows students to utilize some of the M.P.A. courses to satisfy urban affairs requirements, thereby reducing the number of courses needed to complete both degrees. Contact the Bloch School Student Services Office for more information on this program option.

The B.B.A./M.P.A. Program

Students completing the bachelor of business administration may complete their M.P.A. degree in one additional year at UMKC (three semesters) if they meet entrance requirements for the public administration graduate program. For more information about this option, contact the Bloch School Student Services Office.

Combined J.D./M.P.A. Program

The Bloch School and the UMKC School of Law offer a combined J.D. and M.P.A. program. Students must satisfy the admission and degree requirements for each school and program. Students fully admitted to the School of Law are exempt from the GRE requirement for admission to the M.P.A. program. For further information, contact the School of Law or consult the Bloch School Web site at http://bloch.umkc.edu/graduate-program/mpa/jd-mpa-joint-program.aspx.
Master of Science in Accounting

Student Learning Outcomes

Students graduating from this program will:

- Students will demonstrate advanced-level technical competence in financial accounting, taxation, cost/managerial, systems, and auditing. The competency level is sufficient to meet the technical requirements for professional certification.
- Students are able to define, analyze and devise solutions for structured and unstructured problems and issues using cohesive and logical reasoning patterns for evaluating information, materials, and data.
- Students can recognize and analyze ethical problems and choose and defend resolutions for practical situations that occur in accounting in accordance with their professional responsibility.
- Students are able to conceptualize a complex issue into a coherent written statement and/or oral presentation.

The Curriculum

The master of science in accounting (MSA) program encompasses advanced analysis in a variety of areas. The formal MSA degree requires completion of a minimum of 30 credit hours. Applicants whose undergraduate work was outside of business and accounting will first seek admission at the undergraduate level to complete up to 30 hours of foundation coursework. Students may be exempt from course requirements based on prior coursework and grades earned, with exemptions determined at the time of initial advising and enrollment. Foundation and degree requirements are designed to allow students to meet the requirements to sit for the Unified Certified Public Accountant (CPA) exam in Missouri. Students planning to complete the CPA exam in other states may need additional coursework. Those wishing to prepare for other professional exams may be able to meet requirements by careful course selection within the program. **Note**: Students who repeat courses that have been waived from their program may not count the repeated course for credit toward their degree.

M.S. in Accounting

Undergraduate Foundation Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 325</td>
<td>Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 306</td>
<td>Legal, Ethical And Regulatory Environment Of Business</td>
<td>3</td>
</tr>
<tr>
<td>MKT 324</td>
<td>Marketing Concepts</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 306</td>
<td>Introduction to the Accounting Profession and Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 307</td>
<td>Cost Management</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 310</td>
<td>Intermediate Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 311</td>
<td>Intermediate Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 350</td>
<td>Accounting Systems And Controls</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 360</td>
<td>Accounting Research and Communications</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 405</td>
<td>Auditing</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>30</strong></td>
</tr>
</tbody>
</table>

MSA Coursework

(Minimum of 30 credit hours beyond Foundation Coursework.) Students may take multiple courses from the subject areas below to reach 30 credit hours.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Auditing</strong></td>
<td>Minimum of 3 hours required.</td>
<td></td>
</tr>
<tr>
<td>ACCTNG 5564</td>
<td>Principles of Internal Auditing</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 5570</td>
<td>Fraud Auditing</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 5577</td>
<td>Advanced Auditing</td>
<td>3</td>
</tr>
<tr>
<td><strong>Financial</strong></td>
<td>Minimum of 3 hours required.</td>
<td></td>
</tr>
<tr>
<td>ACCTNG 5551</td>
<td>Governmental/Not-for-Profit Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 5559</td>
<td>Advanced Financial Accounting Theory</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 5578</td>
<td>Current Problems In Accounting</td>
<td>3</td>
</tr>
<tr>
<td><strong>Managerial</strong></td>
<td>Minimum of 3 hours required.</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Hours</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>ACCTNG 5575</td>
<td>Managerial Accounting: Issues, Tools And Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

**Systems**

Minimum of 3 hours required.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTNG 5565</td>
<td>Advanced Accounting Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 5567</td>
<td>Information Systems Control And Audit</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 5568</td>
<td>Data Analytics for Accounting</td>
<td>3</td>
</tr>
</tbody>
</table>

**Tax**

Minimum of 3-6 hours required depending on ACCTNG 5557.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTNG 5557</td>
<td>Introduction To Income Taxation ((unless waived by ACCTNG 412 or equivalent))</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 5571</td>
<td>Individual Tax Problems</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 5572</td>
<td>Tax Theory And Business Applications</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 5573</td>
<td>Taxation Of Estates, Gifts, And Trusts</td>
<td>3</td>
</tr>
<tr>
<td>ACCTNG 5576</td>
<td>Tax Research, Procedure And Practice</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives**

6 hours may be outside of Accounting.
Master of Science in Entrepreneurial Real Estate

Student Learning Outcomes

Students graduating from this program will:

• Demonstrate an understanding of advanced real estate investment theories and methods from ownership issues, financing commercial real estate and analyzing a commercial real estate investment through the after tax cash flow model for real estate analysis.
• Demonstrate an understanding of practical and successful techniques for a proactive approach to managing, marketing and leasing commercial properties.
• Demonstrate an advanced working knowledge of the essential steps in conducting a market analysis that will enable the student to obtain relevant data from the market and utilize the various metrics to measure the supply and demand for a particular type of real estate use.
• Demonstrate an understanding of key business and legal concepts in architectural and general construction contract negotiations; issues in buying, leasing and selling properties including due diligence, representations and default concepts; brokerage agreements; governmental issues, including zoning, entitlements and condemnation.

Program Requirements

The master of science in entrepreneurial real estate is designed for students interested in all aspects of real estate who have decided their career paths require an advanced level of knowledge. The Lewis White Real Estate Center works in partnership with the Bloch School of Management’s Regnier Institute for Entrepreneurship and Innovation which provides a global and entrepreneurial focus to the program.

The program fulfills a vital need for graduate real estate education not offered by any university in the region. Enabling real estate entrepreneurs to keep up with today’s ever-changing environment, the program addresses real estate trends such as the global shift in attitude towards eco-friendly developments, reducing carbon footprints and the expansion of green technology in new construction. The knowledge gained will allow participants to make real estate decisions that require mastery of complex, interdisciplinary skills and an ability to manage teams of professionals with expertise in various fields.

Curriculum

The master of science in entrepreneurial real estate is a 36-credit hour lock-step program that will generally be taken over a 2-year period. Students who are not experienced in real estate or are not working will be encouraged to complete a real estate internship during the summer semester. Students who meet certain standards in terms of academic background and experience may also be able to complete the program on a one-year basis. Some students may also opt to pursue the degree on a part-time basis which may extend their program to three years.

The full-time program cycle begins each fall. To complete the program along with their cohorts, students are required to take two graduate level real estate courses each semester. In addition to the eight required real estate courses (24 credit hours), students will also complete 12 elective credit hours of interdisciplinary studies. These electives may also be focused on a narrower set of courses that allow students to pursue individualized areas of focus that will help advance their careers in their chosen area of specialization. Due to scheduling changes, the list of electives may vary from semester to semester. Working with advisers, all students will have an approved program of studies.

The following courses are required:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RL-EST 5556</td>
<td>Entrepreneurial Real Estate Process</td>
<td>3</td>
</tr>
<tr>
<td>RL-EST 5571</td>
<td>Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td>RL-EST 5572</td>
<td>Global Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>RL-EST 5573</td>
<td>Real Estate Feasibility and Market Analysis</td>
<td>3</td>
</tr>
<tr>
<td>RL-EST 5574</td>
<td>Real Estate Construction and Development</td>
<td>3</td>
</tr>
<tr>
<td>RL-EST 5576</td>
<td>Real Estate Property and Portfolio Management</td>
<td>3</td>
</tr>
<tr>
<td>RL-EST 5577</td>
<td>Real Estate Valuation</td>
<td>3</td>
</tr>
<tr>
<td>RL-EST 5578</td>
<td>Legal Context of Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>24</td>
</tr>
</tbody>
</table>

Electives

Elective courses are intended to allow a student to pursue individualized areas of study that will complement the intended goals in their chosen work profession. Graduate courses offered by Henry W. Bloch School of Management do not have to be pre-approved. Any interdisciplinary courses not listed in the chart below must be pre-approved by the student’s real estate adviser. List may be periodically updated.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIV-ENGR 5563</td>
<td>Construction Law</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>CIV-ENGR 5565</td>
<td>Project Finance</td>
<td>3</td>
</tr>
<tr>
<td>CIV-ENGR 5566</td>
<td>Green Building and Sustainable Infrastructure</td>
<td>3</td>
</tr>
<tr>
<td>POL-SCI 424</td>
<td>Urban Politics and Community Power Structures</td>
<td>3</td>
</tr>
<tr>
<td>POL-SCI 5524</td>
<td>Urban Politics</td>
<td>3</td>
</tr>
<tr>
<td>LAW 8501</td>
<td>Contracts I</td>
<td>3</td>
</tr>
<tr>
<td>LAW 8729</td>
<td>Preservation Law</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8766</td>
<td>Land Use Law</td>
<td>2-3</td>
</tr>
<tr>
<td>LAW 8898</td>
<td>Construction Law</td>
<td>2</td>
</tr>
</tbody>
</table>
Master of Science in Finance

Student Learning Outcomes

Students graduating from this program will:

• Demonstrate their ability to analyze financial data by successfully completing a financial statement analysis project.
• Demonstrate their ability to use financial modeling techniques by successfully employing those techniques to reach financial decisions on a case.
• Demonstrate their understanding of how to utilize various asset classes to achieve portfolio objectives including risk management by completing a class project.
• Demonstrate their ability to value business entities (both public and private) by successfully analyzing case information to arrive at an appropriate fair value for a business entity.

The master of science in finance (M.S.F.) is for students and executives seeking specialized training in finance in preparation for financial certifications such as the Chartered Financial Analyst (CFA) and Certified Financial Planner (CFP), as well as for acquiring career advancement skills in a variety of financial fields.

Our nationally and globally diverse faculty is comprised of experienced educators and recognized scholars who combine theory with practice to provide a balanced learning experience.

The Curriculum

The M.S.F. is a 33 hour program and courses are offered in fall, spring and summer semesters. Students entering the program must meet prerequisites in accounting, economics, finance and statistics. Most courses are offered in the evening and students can pursue the degree part-time or full-time.

The Master of Science in Finance consists of the following three main parts:

1. Core classes required of all M.S.F. students (12 hours)
2. Interest Area classes which provide subject matter depth (9 hours)
3. Designated electives (12 hours)

Total hours (33 hours)

Up to six hours of transfer credit may be permitted. Courses waived by prior classwork are replaced by other approved courses.

The core curriculum for all tracks includes the following courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 5552</td>
<td>Global Financial Markets and Institutions</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5553</td>
<td>Investment Analysis</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5560</td>
<td>Financial Modeling</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5561</td>
<td>Financial Statement Analysis</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Interest areas provide students with additional depth in a particular subject area. Some interest areas are designed to prepare students for professional certification exams such as the CFA and CFP. The course requirements for interest areas are detailed below.

Corporate Finance Interest Area

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 5550</td>
<td>Advanced Financial Management Theory And Policies</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5551</td>
<td>International Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5563</td>
<td>Valuation/Mergers and Acquisitions</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

Entrepreneurial Finance Interest Area

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT 5525</td>
<td>Entrepreneurship: Managing Creativity And Innovation</td>
<td>3</td>
</tr>
<tr>
<td>ENT 5527</td>
<td>Creating the New Venture Experiential Learning</td>
<td>3</td>
</tr>
<tr>
<td>ENT 5585</td>
<td>Entrepreneurial Finance and Venture Capital Investment</td>
<td>3</td>
</tr>
</tbody>
</table>
Required Elective Course
FIN 5567 Payment Systems 3

Total Credits 12

Financial Analyst Interest Area

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 5557</td>
<td>Derivative Securities</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5562</td>
<td>Fixed Income Analysis</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5563</td>
<td>Valuation/Mergers and Acquisitions</td>
<td>3</td>
</tr>
</tbody>
</table>

Required Elective Courses
FIN 5564 Portfolio Management 3
FIN 5565 Alternative Investments 3

Total Credits 15

Financial Services Management Interest Area

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 5550</td>
<td>Advanced Financial Management Theory And Policies</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5556</td>
<td>Management Of Financial Intermediaries</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5562</td>
<td>Fixed Income Analysis</td>
<td>3</td>
</tr>
<tr>
<td>or FIN 5567</td>
<td>Payment Systems</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 9

Flexible Design Interest Area
Pick three FIN designated courses to fill in the track portion of your program. For the designated elective section of the program, at least two courses must have the FIN designation.

Wealth Management Interest Area

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 5570</td>
<td>Introduction to Personal Financial Planning</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5566</td>
<td>Financial Plan Development</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5571</td>
<td>Retirement Planning and Employee Benefits</td>
<td>3</td>
</tr>
</tbody>
</table>

Required Designated Electives
FIN 5572 Income Tax Planning 3
FIN 5573 Estate Planning 3

Recommended Designated Elective
FIN 5564 Portfolio Management 3

Total Credits 18

Designated Electives
Twelve hours are required and at least 6 hours must be from Finance. Designated electives may include but are not limited to:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 5550</td>
<td>Advanced Financial Management Theory And Policies</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5551</td>
<td>International Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5556</td>
<td>Management Of Financial Intermediaries</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5557</td>
<td>Derivative Securities</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5559</td>
<td>Strategic Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5562</td>
<td>Fixed Income Analysis</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5563</td>
<td>Valuation/Mergers and Acquisitions</td>
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<tr>
<td>FIN 5564</td>
<td>Portfolio Management</td>
<td>3</td>
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<td>FIN 5565</td>
<td>Alternative Investments</td>
<td>3</td>
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<td>FIN 5566</td>
<td>Financial Plan Development</td>
<td>3</td>
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<tr>
<td>FIN 5567</td>
<td>Payment Systems</td>
<td>3</td>
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<tr>
<td>FIN 5570</td>
<td>Introduction to Personal Financial Planning</td>
<td>3</td>
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<tr>
<td>FIN 5571</td>
<td>Retirement Planning and Employee Benefits</td>
<td>3</td>
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<tr>
<td>FIN 5572</td>
<td>Income Tax Planning</td>
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<td>FIN 5573</td>
<td>Estate Planning</td>
<td>3</td>
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<td>FIN 5574</td>
<td>Student Investment Fund I</td>
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<tr>
<td>FIN 5575</td>
<td>Student Investment Fund II</td>
<td>1.5</td>
</tr>
<tr>
<td>FIN 5582</td>
<td>Seminar In Finance</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5587</td>
<td>Special Topics</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5595</td>
<td>Internship</td>
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</tr>
<tr>
<td>ENT 5585</td>
<td>Entrepreneurial Finance and Venture Capital Investment</td>
<td>3</td>
</tr>
<tr>
<td>MGT 5552</td>
<td>International Study in Business</td>
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</tr>
</tbody>
</table>

Selected courses in economics, management information systems, mathematics, law, real estate or other graduate programs can be approved by a finance faculty member.
Ph.D. in Entrepreneurship and Innovation

PROGRAM OVERVIEW
The Regnier Institute for Entrepreneurship and Innovation at the University of Missouri-Kansas City delivers exceptional entrepreneurship education and research programs. Faculty members in Entrepreneurship and Innovation at IIE are productive scholars who regularly publish in top-tier academic journals in entrepreneurship and related fields. We are committed to building one of the best doctoral programs in the country and training the next generation of entrepreneurship professors.

Students will complete two sequences of courses, one dealing with existing research in the areas of entrepreneurship and innovation and a second dealing with research methodologies. Through these courses, students will develop a solid grounding in the entrepreneurship and innovation literature. In addition, students will develop the research skills needed to (1) identify compelling research questions, (2) use theory to identify possible answers to those research questions, (3) frame research projects to explore the validity of those answers, and (4) analyze the data generated by that research project using the statistical tools and techniques necessary for publication in leading management journals. All students in the program will take 6 hours of courses per semester for the first two years and 3 to 6 hours of courses per semester afterwards while working as research assistants for designated faculty and conducting dissertation research.

Student Learning Outcomes
Students graduating from this program will:

- Theoretical foundation: Our students will demonstrate their knowledge of the entrepreneurship and innovation literature and theories by successfully completing a comprehensive examination at the conclusion of the coursework portion of the PhD program.
- Research methodology: Our students will demonstrate their knowledge of the research methodologies required to conduct top quality academic research in entrepreneurship and innovation by successfully completing a comprehensive examination at the conclusion of the coursework portion of the PhD program.
- Research productivity: Our students will demonstrate their ability to conduct academic research by completing at least one paper suitable for publication at conferences or academic journals.
- Dissertation: Our students will demonstrate their understanding of the research process by completing a dissertation involving original research which meets the standards of Entrepreneurship Department.

PROGRAM STRUCTURE
Total credits required for graduation: 45 credit hours
Total residency requirements, if any: 42 credit hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>ENT 5691</td>
<td>Doctoral Seminar In Theoretical Foundations Of Entrepreneurship I</td>
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<tr>
<td>ENT 5692</td>
<td>Foundations Entrepreneurship</td>
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<tr>
<td>ENT 5693</td>
<td>Technology, Innovation, And Entrepreneurship</td>
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<tr>
<td>ENT 5694</td>
<td>Doctoral Seminar In Theories Of The Fim And Strategy</td>
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<td>Required Methodology Courses (15 credit hours):</td>
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<td>ENT 5587</td>
<td>Seminar In Entrepreneurship</td>
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<td>ENT 5681</td>
<td>Multivariate Statistical Methods-II</td>
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<tr>
<td>ENT 5682</td>
<td>Structural Equation Modeling</td>
<td>3</td>
</tr>
<tr>
<td>ENT 5683</td>
<td>Mathematical Models For Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>ENT 5699</td>
<td>Dissertation and Research in Entrepreneurship and Innovation</td>
<td>1-12</td>
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</tbody>
</table>

Required Elective Courses (6 credit hours):
Students will select two electives in consultation with their advisor. In all cases, the timing and composition of electives will be chosen with the approval of the student's advisor so that these courses will support the doctoral candidate’s research focus.

Research Papers
To demonstrate their mastery of the theoretical literature and supporting research methodologies, students will be required to submit one paper annually for either a conference presentation (year 1) or journal publication (years 2-4). Students who fail to meet this requirement will be placed on probation. Ultimately, if the student cannot meet this requirement, the student will be dismissed from the program.

Comprehensive Exams
Students are expected to take their comprehensive exams after the completion of their course requirements. Exams are administered by the RIEI faculty. However, a second failure will result in termination from the program.

Comprehensive examinations in the co-discipline may also be required either as part of major comprehensive exams or as separate exams.
Dissertation
In addition to the course work, research papers, and comprehensive exams, each Ph.D. candidate must successfully complete a dissertation in Entrepreneurship. The dissertation must be an original and independent piece of work.

Each dissertation is supervised by a five-member dissertation committee. The proposal must be approved by the dissertation committee before the end of the student's third year in the program. After the dissertation has been written to the satisfaction of the dissertation committee, the student presents the dissertation to the faculty and other Ph.D. students, and the student must defend the dissertation in a final oral examination by the committee. All dissertation requirements must be completed by the end of the sixth year in the program.

Teaching effectiveness training
All first-year students are required to participate in UMKC's teaching effectiveness training program. International students must pass a SPEAK test as part of the training. Teaching assistants assigned to teach core courses will receive additional guidance from faculty course coordinators. Each student will have the opportunity to independently teach at least two classes before graduating.

Financial support
We offer full tuition waivers and very competitive stipends to a limited number of students who are in the Stand-Alone Ph.D. program or the Interdisciplinary Ph.D. program with Entrepreneurship as the Coordinating Discipline. In addition, students are encouraged to compete for fellowships offered through the UMKC School of Graduate Studies.

Annual Evaluation
A student must complete a formal evaluation by the supervisory committee every year during the summer. Students are expected to maintain a minimum cumulative grade point average (GPA) of 3.3. Unsatisfactory performance on any of the requirements can lead to termination from the program.
Doctor of Philosophy

Student Learning Outcomes

The course requirements for the program are not predetermined, but rather formulated by the student in consultation with the UMKC doctoral faculty who will serve on their supervisory committee, to meet the student’s individual needs and research interests, satisfy discipline-specific requirements and assure upon graduation students are able to:

- Demonstrate appropriate depth and breadth of knowledge in their disciplines.
- Use skills of interdisciplinary scholarship and research to integrate multiple perspectives.
- Work effectively in a collaborative environment.
- Effectively communicate results of their research to diverse audiences.
- Understand and value diverse approaches to problems.
- Use self-reflection for personal and professional improvement.

Program Requirements

The Bloch School participates in the Interdisciplinary Ph.D. program through the Department of Public Affairs (co-discipline in Public Affairs and Administration only) and through the Department of Global Entrepreneurship and Innovation. The Department of Global Entrepreneurship and Innovation also offers a stand-alone Ph.D. program. Information about discipline-specific admission and program requirements may be found in the School of Graduate Studies section of this catalog. Those interested in doctoral study in entrepreneurship and innovation should visit the Department of Global Entrepreneurship and Innovation (http://bloch.umkc.edu/about-us/academic-departments/global-entrepreneur-and-innovation/default.aspx) website.

All Interdisciplinary Ph.D. applicants and students must first meet the general requirements of the School of Graduate Studies for admission and retention in the Interdisciplinary Ph.D. program. In addition to these general academic regulations that have been outlined in previous sections of the general catalog, disciplines may set more stringent discipline-specific requirements that take priority over the general requirements. Discipline-specific requirements for disciplines eligible to participate in the Interdisciplinary Ph.D. program are listed in alphabetical order by name of discipline. These guidelines are subject to ongoing review and revision, and the doctoral faculty reserves the right to make judicious changes in discipline-specific requirements. The student is referred to coordinators in the disciplines for the most current information.
School of Medicine

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Fax: (816) 235-5277
medicine@umkc.edu
http://www.med.umkc.edu
http://research.med.umkc.edu/

Mailing Address:
University of Missouri-Kansas City
School of Medicine
2411 Holmes Street
Kansas City, MO 64108-2792

Interim Dean:
Mary Anne Jackson, M.D.

Vice Dean:
Paul Cuddy, Pharm.D., M.B.A.

Senior Associate Dean:
Dev Maulik, M.D., Ph.D., FACOG, FRCOG (Women’s Health)

Associate Deans:
Donald Barnett, M.D. (Kansas City Veterans Affairs Medical Center)
Denise Bratcher, D.O. (Children’s Mercy Hospital Programs)
Timothy Dellenbaugh, M.D. (Center for Behavioral Medicine)
Diana Dark, M.D. (Saint Luke’s Hospital Programs)
Stefanie Ellison, M.D. (Learning Initiatives)
John Foxworth, Pharm.D. (Faculty Development)
Paula Nichols, Ph.D. (Research Administration)
Rebecca Pauly, M.D. (Faculty Development)
Nurry Pirani, M.D. (Council on Curriculum)
Olevia Pitts, M.D. (Research Medical Center)
Brenda Rogers, M.D. (Student Affairs)
Mark T. Steele, M.D. (Truman Medical Center)
Christine Sullivan, M.D. (Graduate Medical Education)
Gary Sutkin, M.D. (Women’s Health)
Nate Thomas, Ph.D. (Office of Diversity & Inclusion)
Michael Wacker, Ph.D. (Academic Affairs)
Steven Waldman, M.D. (International Programs)

Assistant Deans:
Alice Arredondo, Ed.D. (Admissions and Recruitment)
Julie Banderas, Pharm.D., FCCP, BCPS (Graduate Studies & Allied Health)
Raymond Cattaneo, M.D. (Year 1 & 2 Medicine)
Lawrence Dall, M.D. (Medical Student Research)
Darla McCarthy, Ph.D. (Curriculum)
Felix Okah, M.D., M.S. (Career Advising)
Jennifer Quaintance, Ph.D. (Assessment and Quality Improvement)

Council Chairs:
Adam Algren, M.D. (Council on Selection)
Jennifer Allsworth, Ph.D. (Faculty Council)
Julie Banderas, Pharm.D. (Graduate Studies)
Stacey Algren, M.D. (Council on Evaluation)
Emily Haury, M.D. (Council of Docents)
Nurry Pirani, M.D. (Council on Curriculum)
Fariha Shafi, M.D. (Diversity Council)

Academic Chairs:

Michael Artman, M.D. (Pediatrics)
Julie Bandera, Pharm.D. (Graduate Health Professions in Medicine)
Mark Bernhardt, M.D. (Orthopaedic Surgery)
Charles Donohoe, M.D. (Neurology)
Brett Ferguson, D.D.S. (Oral and Maxillofacial Surgery)
Matthew Gratton, M.D. (Emergency Medicine)
Stephen Jarvis, M.D. Interim (Psychiatry)
Kamani Lankachandra, M.D. (Pathology)
Dev Maulik, M.D. (Obstetrics and Gynecology)
Jill Moormeier, M.D. (Internal Medicine)
Michael O’Dell, M.D. (Community and Family Medicine)
Paula Monaghan-Nichols, Ph.D. (Biomedical Sciences)
Nelson Sabates, M.D. (Ophthalmology)
Johan Suyderhoud, M.D. (Anesthesiology)
Glenn Talboy, M.D. (Surgery)
Steve Waldman, M.D., J.D. (Medical Humanities and Bioethics)
Brandt C. Wible, M.D. Interim (Radiology)
Shui Ye, M.D., Ph.D. (Biomedical and Health Informatics)

About the School of Medicine

The University of Missouri opened a medical school in Kansas City in 1971 to meet the health care needs of Missouri and the nation. Using an alternative approach to medical education from that of the traditional four-year school, the UMKC School of Medicine accepts students directly out of high school for the combined baccalaureate/ Doctor of Medicine program (http://med.umkc.edu/bamd), which allows students to graduate in six years with their medical degree.

The School’s innovative curriculum provides students with early and continuous patient-care experience and fully integrates liberal arts/humanities, basic sciences and clinical medicine. The learning environment de-emphasizes competition and encourages learning through close faculty-student interaction and student partnerships.

Students begin learning about medicine and interacting with patients from the first day of class. They also learn the skills and attitudes that foster compassion, honesty and integrity. Hands-on learning and clinical experience are integrated throughout all the years of the program. The UMKC School of Medicine also offers the M.D. Program (http://med.umkc.edu/md) to students who have obtained, or will soon earn, a baccalaureate degree. These students may complete their medical degree in four years following their undergraduate programs.

The School of Medicine partners with six of the leading hospitals in Kansas City to provide students and residents outstanding medical education as they rotate through the various clinical departments. These hospitals include Truman Medical Centers, Children’s Mercy Kansas City, Saint Luke’s Hospital, Center for Behavioral Medicine, the Kansas City VA Medical Center and Research Medical Center. The School does not operate its own hospital, however many of the doctors who practice at these hospitals also hold faculty positions with the School.

Our offerings are growing. The UMKC School of Medicine offers three master’s programs: the Master of Science in Anesthesia (http://med.umkc.edu/msa), Master of Medical Science Physician Assistant (http://med.umkc.edu/pa) and the Master of Science in Bioinformatics (http://med.umkc.edu/msb). An interdisciplinary Ph.D. program (http://med.umkc.edu/iphd) allows students to integrate clinical research skills into their doctoral programs. In collaboration with the School of Education, the School of Medicine also offers a master of Health Professions Education (http://med.umkc.edu/mhpe).

All medical schools are reviewed and accredited by the Liaison Committee on Medical Education, a national body representing the Association of American Medical Colleges and the American Medical Association. This committee has endorsed the academic philosophy and plan, and the School is fully accredited.

For additional information, please click here to visit the School of Medicine website (http://med.umkc.edu).

Mission, Vision & Goals

UMKC School of Medicine Strategic Plan

Mission

The mission of the University of Missouri-Kansas City School of Medicine is to improve the health and well-being of individuals and populations through innovative educational programs in medicine and biomedical science, cutting-edge biomedical research, and leadership in academic
medicine. The School strives to implement this mission with the highest professional and ethical standards, in a culture of diversity and inclusiveness, and in an environment that enables each individual to develop to his or her full potential.

**Vision**

UMKC School of Medicine aims to be the anchoring institution for a leading academic health center.

**Introduction and Background**

The UMKC School of Medicine opened in 1971 as the result of over a decade of community efforts to establish a medical school in Kansas City, Missouri. Both the history and the current mission and operations of the UMKC School of Medicine are deeply rooted in the community at the local, state, national and international levels. As part of a growing academic health sciences campus in the urban core of Kansas City, Missouri, the School advances the health of the community through education of physicians and other health care professionals, through research and application of new knowledge to health conditions that affect our community, through direct service in the community, and through economic development. In the nearly four decades that the School has been in existence, all of the four mission areas—education, research, service, and economic development—have grown and matured along with the Hospital Hill campus where the School is located. The University of Missouri-Kansas City is a public, urban-serving, research and doctoral university; both it and the School of Medicine are poised to make an even greater contribution to “Advancing the Health of Our Community” in the decades to come.

**School of Medicine Education Programs:** The UMKC School of Medicine was founded on an innovative medical education system based on: early and continuous clinical experiences, humanities woven throughout the curriculum, small group learning communities centered around a physician “docent,” continuous assessment of student progress, and an emphasis on application of the basic sciences in clinical medicine. The combined degree program allows the school to accept the majority of its students directly out of high school and to develop the skills, knowledge, and attitudes of these students longitudinally over six years with a goal of instilling the highest standards of medical professionalism, clinical competency, humanism, and altruism during a highly formative period of their lives. The community-based setting has freed the school of fiscal and administrative concerns over the management of hospitals and practice plans. Time has proven the value of the innovative concepts and format of the original design of the medical school outlined in the original Academic Plan. The history and the first thirty-five years of education outcomes were recently published.

In addition to the baccalaureate/MD program, the School also admits three other categories of students seeking the MD degree: students who already have a baccalaureate degree and complete the last four years of the program as “MD-only” students; students who have a DDS degree and complete a combined MD/Oral Surgery residency program; and a limited number of transfer students who have completed their first two years of medical school at an accredited program. Over the past decade, all programs leading to the MD degree combined have resulted in approximately 90 graduates per year. Residency choices of students span the specialties and subspecialties, with approximately 40% initially entering the primary care fields of internal medicine, family medicine, pediatrics and medicine/pediatrics. In addition, 45% of graduates remain in the state of Missouri and the counties surrounding the two largest metropolitan areas of Kansas City and St. Louis. The school will continue its strong commitment to increasing the number of graduates of the medical school who serve the healthcare needs of Missouri.

Beginning in 2008, the school accepted its first students into graduate degree programs. The Masters of Science in Anesthesiology leading to a career as anesthesiologist assistants opened in 2008, and the Masters of Science in Bioinformatics opened in Fall 2009. The MS in Bioinformatics, with tracks in computation, genomics and clinical research, is a joint program with the School of Computing and Engineering and the School of Biological Sciences. Masters degree programs, especially in allied health are, another means to meet pressing local and regional healthcare needs.

The School of Medicine is the institutional sponsor for over 40 residency and fellowship programs accredited by the Accrediting Council for Graduate Medical Education (ACGMD) conducted at affiliated hospitals. Today, there are nearly 500 residents and fellows in these programs at six affiliated hospitals. Graduates from these programs are a major source of physicians in Kansas City and the surrounding regions.

In 2008, the School of Medicine became accredited by the Accrediting Council for Continuing Medical Education (ACCME) for the first time to offer continuing medical education (CME) programs. Previously, the School relied on affiliated hospital CME departments to provide educational credits for continuing education activities held for faculty and by faculty. In looking at the future directions of required competencies and life-long learning needed for patient care and maintenance of licensure and certifications, it was decided that the School should develop these programs as part of its longitudinal medical education activities. Additionally, these programs provide infrastructure for faculty development programs in scholarship in clinical practice, education and research.

**School of Medicine Research Programs:** The early efforts of the school were directed toward growth and building of medical education programs on the base of strong clinical affiliations. Over the past decade, scholarly research has become a major goal in order to discover and apply new knowledge to improve human health, to develop and maintain a community of scholars in support of a robust learning environment, and to provide economic development in the region. Concurrently, there has been increasing emphasis on research within the university as a whole and the region. The School of Medicine now has 22 endowed chairs and professorships, more than any other academic division in the University of Missouri System, and the research funding has increased exponentially. The current total extramural funding in grants and contracts in the School has increased four-fold over the past decade and is now $23 million annually. Total federal funding represents approximately half of the total. Research efforts are focused toward impact on community health conditions, especially in areas that link to areas of clinical strength. These efforts are designed to build and utilize large databases that go beyond “translational” research in general, and to have impact on the health of our community in particular.
Health impact may be either at the individual level—i.e. “personalized medicine”—or at the population level. Additionally, it may be directed at either prevention or diagnosis and treatment of disease.

School of Medicine Community Engagement: The UMKC School of Medicine is an essential community partner in advancing health through education and training of physicians and other healthcare providers, through research and application of new knowledge to address health issues, through direct provision of care (including volunteer work and service learning), and through economic development and stability in the urban core. Much has changed in the nearly 40 years since the School’s founding, but the values that relate to a commitment to serve the community have not.

The community has called for an overall strategic plan from UMKC3, including in the life and health sciences. The School of Medicine is ready to deepen this partnership with the community to advance the health of our community. The following strategic plan outlines the specific goals and objectives of the School for 2010-2015. These goals and objectives are designed to align with the overall strategic plans of the University of Missouri System and the University of Missouri-Kansas City.

References
1. Dimond EG. The Academic Plan for the School of Medicine, University of Missouri-Kansas City. Last updated in 2009.

Summary of Goals and Strategic Objectives

Educate outstanding physicians, scientists, and healthcare providers for Missouri and the United States.

Goals:
- Advance our standing as a premier accelerated, dual-degree medical education program in the United States.
- Expand our program in Graduate Health Professions in Medicine by developing new degree and/or certificate programs to meet future healthcare and health sciences needs.
- Ensure that our learners have opportunities to engage in high-quality Research.
- Provide and enhance an outstanding clinical and educational experience in a positive learning environment for residents and fellows in their chosen field of medicine.
- Provide and enhance an outstanding clinical and educational experience, opportunities for lifelong learning, career advising, and a positive learning environment for students.

Increase cutting-edge biomedical research.

Goals:
- Develop a strategic research fund to catalyze translational and health outcomes research.
- Advance existing programmatic excellence in health outcomes, informatics, patient safety, and community health.
- Join forces with our academic, clinical, and community partners to develop a UMKC Health Sciences research agenda.
- Engage with industry partners to pursue innovative entrepreneurial opportunities.

Enhance the ability of our clinical partners to deliver state-of-the-art patient care.

Goals:
- Develop a framework to establish UMKC Health Sciences Center.
- Increase the scope and mission of education and research in simulation.
- Join forces with our clinical and academic partners to develop shared simulation strategies and goals.

Improve the health of our community.

Goals:
- Recruit and retain faculty members who engage in funded, community-based research.
- Establish community-wide collaboratives to leverage resources for the advancement of community health.

Faculty

Allied Health Program

Lance Carter; Assistant Program Director; Assistant Teaching Professor; M.S.A., AA-C (Case Western Reserve)

Michelle Eaton; Assistant Teaching Professor; PA-C (Wichita State University)
Katherine Ervie; Program Director; Assistant Teaching Professor; PA-C (Butler University), MPAS (University of Nebraska Medical Center)

Melanie Guthrie; Program Director; Assistant Teaching Professor; M.S.A., AA-C (Case Western University)

Dan T. Hladky; Assistant Teaching Professor; B.S./A.A-C. (Case Western Reserve University)

Heather Yates; Assistant Teaching Professor; M.H.S. (Duke University)

**Anesthesiology**

Daozhong Jin; Assistant Research Professor

John Q. Wang; Acting Associate Dean, Research Administration; Westport Anesthesia-Missouri Endowed Chair and Professor; M.D. (Tongji Medical University) Ph.D. (Shanghai Medical University)

**Biomedical Sciences**

Xiangping Chu; Associate Professor; M.D. (Fudan Univ Shanghai Medical College). Ph.D. (Jiangsu University)

Maria Cole; Associate Teaching Professor; Ph.D. (State University of New York at Stony Brook)

Theodore Cole; Teaching Professor; Ph.D. (State University of New York)

Mingui Fu; Associate Professor; Ph.D. (Peking University)

Wail M. Hassan; Associate Teaching Professor; Ph.D. (University of Southern Mississippi)

Rosa Huang; Professor; Ph.D. (University of California – Los Angeles)

Limin Mao; Research Professor; M.D. (Tongji Medical University)

Darla McCarthy; Associate Teaching Professor; Ph.D. (University of Colorado – Boulder)

Willard Morrow; Associate Teaching Professor; V.M.D. (University of Philadelphia), Ph.D. (University of Kansas)

Paula Monaghan-Nichols; Department Chair, Associate Dean for Research, Professor; Ph.D. (Medical Research Council, Edinburgh, Scotland)

Bart Patenaude; Associate Teaching Professor; Ph.D. (University of Louisville)

Nilofer Qureshi; Professor; Ph.D. (University of Wisconsin)

Neerupma Silswal; Associate Research Professor; Ph.D.

Chad Touchberry; Assistant Teaching Professor; Ph.D. (University of Kansas)

Michael Wacker; Assistant Dean, Vice-Chair of Biomedical Sciences, Medical Student Research and Associate Teaching Professor; Ph.D. (University of Kansas)

Kristin A. Wright; Assistant Teaching Professor; Ph.D.

**Biomedical/Health Informatics**

Jenifer Allsworth; Associate Teaching Professor; Ph.D. (Brown University)

Daphne Bascom; Teaching Professor; M.D./Ph.D. (University of Pittsburgh/University of Oxford)

Jannette Berkley Patton; Associate Professor; Ph.D. (University of Kansas)

An-Li Cheng; Assistant Professor; Ph.D. (University of Georgia)

Betty Drees; Professor; M.D. (University of Kansas School of Medicine)

Monica Gaddis; Assistant Teaching Professor; Ph.D. (Indiana University)

Mary Gerkovich; Associate Research Professor; Ph.D. (University of Kansas)

Timothy Hickman; Associate Teaching Professor; B.A./M.D. (University of Missouri – Kansas City)

Mark Nichols; Associate Research Professor; Ph.D. (Yale University)
Kim Smoleren; Assistant Professor; Ph.D. (Tilburg University, Tilburg Netherlands)

Lakshmi Venkitachalam; Assistant Professor; Ph.D. (University of Pittsburgh)

Community and Family Medicine

Michael O'Dell; Chair, Department of Community and Family Medicine and Professor; M.D., M.S.H.A. (University of Kansas, School of Medicine)

Human Therapeutics

Julie Banderas; Assistant Dean of Graduate Studies & Allied Health; Chair, of Graduate Studies Council: interim Chair, Biomedical/Health Informatics and Professor; B.A., Pharm.D., (University of Nebraska)

Nicholas Norgard; Associate Teaching Professor; Ph.D.

Internal Medicine

Daniel Pauly; Professor; M.D. (Baylor College of Medicine), Ph.D. (University of Alabama),

Rebecca R Pauly; Associate Dean, Faculty Development; Chair, Council of Docents; Professor; B.A. (Vanderbilt University); M.D. (University of Alabama)

John Spertus; Professor; Daniel Lauer, M.D. Endowed Chair in Metabolism and Vascular Disease Research; M.D. (University of California)

OB/Gyn

Dev Maulik; Senior Associate Dean For Women's Health; Chair, Department of Obstetrics and Gynecology and Professor; M.D. (University of Calcutta); Ph.D. (University of London)

Gary Sutkin; Associate Dean For Women's Health; Program Director, Department of Obstetrics and Gynecology; Professor; M.D. (Northwestern University); M.B.A. (J.L. Kellogg Graduate School of Management)

Ophthalmology

Raymond Duncan; Assistant Research Professor; Ph.D. (University of North Texas Health Sciences Center)

Karl E. Kador; Assistant Professor; Ph.D. (University of Nebraska - Lincoln)

Peter Koulen; Professor; Felix and Carmen Sabates Endowed Chair in Vision Research; Ph.D. (Johannes Gutenberg University)

Oral Surgery

Brett Ferguson; Chair, Chair, Department of Oral and Maxillofacial Surgery and Assistant Professor; D.D.S. (University of Missouri – Kansas City)

Orthopaedics

Mark Bernhardt; Chair, Chair, Department of Orthopaedic Surgery and Professor; M.D. (University of Kansas)

Pediatrics

Shui Qing Ye; Professor; M.D. (Wuhan University School of Medicine), Ph.D. (University of Chicago School of Medicine)

Psychiatry

Nash Boutros; Chair, Psychiatry; M.D. (Cairo University Medical School)

Seung Suk Kang; Assistant Professor; Ph.D. (University of Minnesota)

Graduate

Graduate Degree Programs:

Masters of Science Degrees:

Master of Science in Anesthesia
Master of Science in Bioinformatics (p. 1530)
Master of Medical Science Physician Assistant (p. 1533)
Master of Health Professions Education (p. 1535)
Graduate Certificate Degrees:
Graduate Certificate in Clinical Research
Graduate Certificate in Health Professions Education (p. 1537)

Doctor of Philosophy:
Interdisciplinary Ph.D. primary and co-discipline: Biomedical and Health Informatics (p. 1538)

Medical
Medical Degree Programs:
Baccalaureate/M.D, Program (p. 1518)
M.D. Program (p. 1524)

For additional information about the above Medical Degree programs, please visit the website (http://www.med.umkc.edu/prospective) or contact:
UMKC School of Medicine
Council on Selection
2411 Holmes Street
Kansas City, MO 64108
(816) 235-1870
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Anesthesia Courses
ANESTH 5505 Anatomy for Anesthesiologist Assistants I Credit: 1
This course is designed to meet the needs of students seeking a Master of Science in Anesthesia degree at UMKC. A thorough understanding of anatomy provides a basic foundation for future coursework and for the profession of Anesthesiologist Assistant. This course covers gross anatomy from a regional (or systemic in some cases) perspective bringing together all body systems present in each defined area of study.
Prerequisites: Acceptance to the MSA program.

ANESTH 5506 Anatomy for Anesthesiologist Assistants II Credit: 1
In this course, students will learn anatomy that directly impacts clinical situations. Diagnostic skills will be enhanced through an understanding of radiologic tests, identification of common chest X-rays, and a basic understanding of transesophageal echocardiography. Students will learn to recognize the basic 4 chamber TEE views and diagnose the most common lesions and abnormalities in patients undergoing cardiac surgery. An ultrasound machine will be used to identify anatomy for a variety of clinical procedures, including intravenous line placement, central line placement, arterial line placement, and peripheral nerve block placement. Students will learn the principles of how to operate and manipulate the ultrasound monitor, and will learn the relevant anatomy and anesthetic implications and management for the most common peripheral nerve blocks used today. In addition, clinically significant anatomy case studies in anesthesia will be presented and discussed.
Prerequisites: acceptance to master of science in anesthesia program.

ANESTH 5518 Professionalism for the Anesthesiologist Asst I Credits: 0.5
Introduction to legal and ethical areas of Anesthesiologist Assistant practice; professional behavior, legal obligations of anesthetists and patient, and social and community contexts of health care.
Prerequisites: Acceptance to M.S. Anesthesia program.

ANESTH 5528 Professionalism for the Anesthesiologist Asst II Credits: 0.5
Special topics in Anesthesiologist Assistant practice; impact of substance abuse, cognitive deficiency and mental illness in creating an impaired provider.
Prerequisites: acceptance into MSA program.

ANESTH 5538 Professionalism for the Anesthesiologist Asst III Credits: 0.5
Special topics in Anesthesiologist Assistant practice; principles of evidence based medicine and approaches to mastering life long learning and maintaining professional competencies.
Prerequisites: acceptance into MSA program.

ANESTH 5540 Patient Monitoring and Instrumentation Credits: 3
This is a three credit hour course which integrates concepts of circuits and engineering with the clinical application of anesthesia instrumentation. To the extent possible, the material covered will be directly linked to clinical scenarios. In order for the monitors to be fully understood from a clinical management perspective, relevant physiology related to the monitors and to the field of anesthesia will be taught and practiced. In addition to the monitors, students will gain an in depth understanding of all parts of the anesthesia machine, anesthesia circuits, central line and arterial line equipment, and the properties of common intravenous and inhalational anesthetics.
ANESTH 5541 Methods of Anesthesia I Credits: 2
In this course, students will be prepared to give safe anesthesia in all types of cardiac surgery, learn how to interpret arterial blood gases, and obtain an in depth understanding of ACLS principles so that they will be prepared for any resuscitation scenario in the OR. A cardiac drug card will be administered. Videos and PPTs will be administered to help students understand the concepts of ACLS, acid base management, cardiac bypass, cardiac surgery monitoring, techniques, and anesthetic management.

Prerequisites: ANESTH 5540.

ANESTH 5548 Anesthesiologist Assistant Senior Seminar Credits: 0.5
This is 0.5 credit hour course taken in the final semester of the Master of Science in Anesthesia Program and is designed to prepare the student for their future roles. This course will prepare the student for the job market and placement and enforce the life-long learning needed within medical professions. The course will contain information on student loan payback, financial literacy after graduation, and leadership opportunities for the graduate. The course will also clinically update the students in basic life saving for the healthcare provider (BLS), advanced cardiac life saving (ACLS) and Pediatric advance life saving (PALS).

ANESTH 5556 Physiology for Anesthesiologist Assistants I Credits: 3
This course is the first of two parts of a human physiology series. The course is designed to provide an understanding of basic neurophysiology, autonomic nervous system, blood, respiratory and cardiovascular physiology. Topics of special interest to anesthesiologist assistants will be highlighted.

ANESTH 5557 Physiology for Anesthesiologist Assistants II Credits: 2
This course is the 2nd of two parts of a human physiology series. The course is designed to provide an understanding of endocrine, reproductive, neonatal, gastrointestinal, and neurophysiology. Topics of special interest to anesthesiologist assistants will be highlighted as it relates to the physiology.

Prerequisites: ANESTH 5556.

ANESTH 5558 Anesthesia & Co-existing Disease I Credits: 2
This course provides an essential anesthesia link to the basic anatomy and physiology classes in the Masters of Science in Anesthesia program. The content outline intentionally corresponds with and builds upon that of the Physiology for Anesthesiologist Assistants coursework. This course focuses on primary cardiac, respiratory and endocrine coexisting diseases that affect anesthetic care. It provides for the student a strategic plan in the management of patients with these disease processes.

Prerequisites: ANESTH 5556.

ANESTH 5559 Anesthesia & Co-existing Disease II Credits: 2
This is the second course that establishes an essential anesthesia link to the basic anatomy and physiology classes in the Masters of Science in Anesthesia program. The content outline intentionally corresponds with and builds upon that of the Physiology for Anesthesiologist Assistants coursework. This course focuses on a variety of coexisting diseases states but all focuses on pediatric and obstetric co-existing disease and how they affect anesthesia management.

Prerequisites: ANESTH 5558.

ANESTH 5560 Introduction to Anesthesia Credits: 2
Introduction to basic concepts dealing with clinical anesthesia. Medical terminology, human anatomy, medical chart interpretation and drug dosage calculations.

ANESTH 5561 Orientation to Simulation and Clinical Application Credits: 5
This three hour skills based course is an introduction to the student’s clinical experience in the operating room. The goal is to rapidly engage students in anesthesia patient care. Fundamental procedures and techniques used in administering anesthesia will be emphasized. Simulated clinical models are used to allow students to first practice anesthesia care in a safe, controlled, low pressure environment. Students are prepared for quality immersion into patient care. Operating room set up and etiquette, pre-operative assessment, IV placement techniques, airway management, intraoperative care, and postoperative management are emphasized. Course includes hands on introduction to the operating room and anesthetic management and students obtain 80-100 hours of clinical contact time.

ANESTH 5562 Anesthesia Clinical Correlation I Credit: 1
A series of conferences presented by faculty and students that applies to anesthetic theory as it relates to the clinical experience. Specific anesthetic situations are emphasized.

Prerequisites: ANESTH 5560.

ANESTH 5563 Anesthesia Clinical Experience I Credits: 4
During this course students gain clinical and professional experience in the operating room. In this course students are expected to perform program competencies with the level of assistance developed in the programs goals for skills development. Students will be one on one with a Certified Anesthesiologist Assistant or Anesthesiologist clinical supervisor while obtaining these goals. Students will complete a specific IV, pre-surgical testing and post anesthesia care unit rotation during their clinical experience courses.

Prerequisites: ANESTH 5561.
ANESTH 5564. Anesthesia Clinical Correlation II Credit: 1
This one credit course is designed to help students understand how to effectively research and apply current anesthesia journal articles, and to prepare for the NCCAA certification examination. The students will spend the entire semester studying 4 (Principles of anesthesia/ Instrumentation and monitoring, anesthesia delivery systems, physics / renal, genital urologic / respiratory system / clinical subspecialties) of the 16 topics that are included on the NCCAA certification examination. Homework will include submission of test questions based on their presentations and the 4 assigned NCCAA testing topics. The students will also receive an assignment to find and summarize a journal article from one of the 6 assigned topics. The students will cap off the semester with a clinical final examination, which includes submitted questions from assigned topics.
Prerequisites: ANESTH 5562.

ANESTH 5565. Anesthesia Clinical Experience II Credits: 8
During this course students gain clinical and professional experience in the operating room. In this course students are expected to perform program competencies with the level of assistance developed in the programs goals for skills development. Students will be one on one with a Certified Anesthesiologist Assistant or Anesthesiologist clinical supervisor while obtaining these goals. Students will complete a specific IV, pre-surgical testing and post anesthesia care unit rotation during their clinical experience courses.
Prerequisites: ANESTH 5563.

ANESTH 5567. Anesthesia Clinical Experience III Credits: 16
Clinical clerkship component of program clinical phase. Students are in the operating room (OR) five days per week and through the combined clinical experience clerkships will receive extended exposure to all clinical subspecialties. Students complete 4 week or 8 week rotations at several hospitals to gain experience with general surgery, obstetrics, pediatrics, trauma surgery, neurosurgery, cardiovascular surgery, orthopedic surgery, intensive care unit and others. Students are expected to perform program competencies with the level of assistance developed in the programs goals for skills development. Students will be one on one with a Certified Anesthesiologist Assistant or Anesthesiologist clinical supervisor while obtaining these goals.
Prerequisites: ANESTH 5565, ACLS and PALS certification.

ANESTH 5568. Anesthesia Clinical Correlation III Credit: 1
This one credit course is designed to help students understand how to effectively research, apply, and prepare for the NCCAA certification examination. The students will spend the entire semester studying 4 (cardiovascular/ Hematology coagulation / Metabolism endocrine / Neurosciences neuromuscular) of the 16 topics that are included on the NCCAA certification examination. Homework will include submission of test questions based on the 4 assigned NCCAA testing topics. The students will cap off the semester with a clinical final examination, which includes submitted questions from the assigned topics. This course also includes a one week in person session where students will identify risk management issues for anesthesia providers, learn key strategies when applying for a job and demonstrate key points of patient assessment in the ICU. Recertification for Basic Life Support (BLS) occurs during this course.
Prerequisites: ANESTH 5564.

ANESTH 5569. Anesthesia Clinical Experience IV Credits: 12
Clinical clerkship component of program clinical phase. Students are in the operating room (OR) five days per week and through the combined clinical experience clerkships will receive extended exposure to all clinical subspecialties. Students complete 4 week or 8 week rotations at several hospitals to gain experience with general surgery, obstetrics, pediatrics, trauma surgery, neurosurgery, cardiovascular surgery, orthopedic surgery, intensive care unit and others. Students are expected to perform program competencies with the level of assistance developed in the programs goals for skills development. Students will be one on one with a Certified Anesthesiologist Assistant or Anesthesiologist clinical supervisor while obtaining these goals.
Prerequisites: ANESTH 5567.

ANESTH 5570. Anesthesia Clinical Correlation IV Credit: 1
This one credit course is designed to help students understand how to effectively research and apply current anesthesia journal articles, and to prepare for the NCCAA certification examination. The students will spend the entire semester studying 6 (Peds the Neonatal Period / Pharmacology / Regional Anesthesia Pain Management/ GI Hepatic/ OB Perinatal Management) of the 16 topics that are included on the NCCAA certification examination. Homework will include submission of test questions based on their presentations and the 6 assigned NCCAA testing topics. The students will also receive an assignment to find and summarize a journal article from one of the 6 assigned topics. The students will cap off the semester with a clinical final examination, which includes submitted questions from assigned topics.
Prerequisites: ANESTH 5568.

ANESTH 5571. Anesthesia Clinical Experience V Credits: 16
Clinical clerkship component of program clinical phase. Students are in the operating room (OR) five days per week and through the combined clinical experience clerkships will receive extended exposure to all clinical subspecialties. Students complete 4 week or 8 week rotations at several hospitals to gain experience with general surgery, obstetrics, pediatrics, trauma surgery, neurosurgery, cardiovascular surgery, orthopedic surgery, intensive care unit and others. Students are expected to perform program competencies with the level of assistance developed in the programs goals for skills development. Students will be one on one with a Certified Anesthesiologist Assistant or Anesthesiologist clinical supervisor while obtaining these goals.
Prerequisites: ANESTH 5569.
ANESTH 5573 Anesthesia Clinical Experience VI Credits: 16
Clinical clerkship component of program clinical phase. Students are in the operating room (OR) five days per week and through the combined clinical experience clerkships will receive extended exposure to all clinical subspecialties. Students complete 4 week or 8 week rotations at several hospitals to gain experience with general surgery, obstetrics, pediatrics, trauma surgery, neurosurgery, cardiovascular surgery, orthopedic surgery, intensive care unit and others. Students are expected to perform program competencies with the level of assistance developed in the programs goals for skills development. Students will be one on one with a Certified Anesthesiologist Assistant or Anesthesiologist clinical supervisor while obtaining these goals.
Prerequisites: ANESTH 5571.

ANESTH 5575 Pharmacology for Anesthesiologist Assistants I Credits: 2
Basic concepts in pharmacology: principles of drug action, receptor theory, pharmacokinetics, pharmacodynamics and drug dose calculations. The course will emphasize the primary medications used to provide anesthesia and to support patients during the perioperative period.

ANESTH 5576 Pharmacology for Anesthesiologist Assistants II Credits: 2
This course, designed for the M.S. in Anesthesia Program, introduces students to common pharmacological concepts as they apply to anesthesia. Basic concepts of pharmacology are taught: principles of drug action, receptor theory, pharmacokinetics, pharmacodynamics and drug dose calculations. The course emphasizes those medications and medication classes that are likely to be encountered by the anesthesiologist assistant.

ANESTH 5577 Methods of Anesthesia II Credits: 3
In this course, students will be prepared to manage anesthetics for more complex situations. Anesthetic management for certain patient conditions will include permanent implantable pacemakers, fluid electrolyte abnormalities, and congenital heart disease. Clinical management for individual patient populations will include obstetrics and pediatric advanced life support (PALS). In addition, clinically relevant information regarding advanced equipment and techniques will include 12 lead ECG interpretation, ultrasound guided peripheral nerve blocks, neuraxial anesthesia, and physics for anesthesiologist assistants.
Prerequisites: ANESTH 5571.

ANESTH 5585 Physiological Model-based Simulation I Credits: 2
This is a two credit hour course, which utilizes physiological model-based simulation and procedure simulation to integrate anesthesia-associated basic science knowledge into a laboratory setting. The focus for this semester is designed to help student become proficient in central lines, pulmonary artery monitoring, epidural and spinal placement, and managing more complex anesthetic cases involving trouble shooting and crisis management via simulation. Advanced Cardiac Life Saving is obtained during this course.

ANESTH 5586 Physiological Model-based Simulation II Credits: 2
This is a two credit hour course, which builds upon the technical skills learned in ANES 5585. Students will be asked to manage complex anesthetic cases involving multiple co-existing diseases and methods of anesthesia. Pediatric Advanced Lifesaving Saving (PALS) is a certification required to be obtained during this course.
Prerequisites: ANESTH 5585.

ANESTH 5590 Special Topic Credits: 0.5-3
An opportunity to explore new topics or existing topics in greater detail and are not included in the usual course offerings.

ANESTH 5601 Principles in Pediatric & Congenital Cardiovascular Perfusion I Credits: 3
Students will be introduced to fundamentals of congenital heart disease genesis, pediatric and congenital cardiovascular surgery, perfusion and cardiology. The course will delve into developmental cardiac embryology, the genetics congenital cardiac defects, types of congenital heart defects, diagnostic techniques, surgical considerations, and cardiopulmonary bypass methods and techniques. Faculty permission required for enrollment and limited to certified and new graduate perfusionists.
Prerequisites: Faculty permission required for enrollment and limited to certified and new graduate perfusionists.

ANESTH 5602 Principles in Pediatric & Congenital Cardiovascular Perfusion II Credits: 3
This course examines advanced topics in pediatric and congenital cardiovascular surgery, perfusion and cardiology. Emphasis on physiology, mechanical assist, transplantation, fetal delivery and interventions will be discussed.
Prerequisites: Faculty permission required for enrollment and limited to certified and new graduate perfusionists.

Basic Medical Science Courses
BMS 5590 Special Topics Credits: 1-3
An opportunity to explore new topics or existing topics in modified or greater detail; topics which are not included in the usual course offerings.

BMS 9265 Human Biochemistry 1 - Medical Credits: 5
Presents basic principles of human biochemistry. Addresses structure, function, biosynthesis, degradation and utilization of the major constituents of living systems. Employs an integrative approach to the basic science and clinical medicine aspects of normal and defective metabolism.

BMS 9296 Human Structure Function I Credits: 6
Part 1 of a 4 part series (January-February). Integrated course in anatomy, histology, embryology, physiology and biochemistry. This unit covers introductory principles and the musculoskeletal system.
BMS 9297 Human Structure Function II Credits: 5
Part 2 of a 4 part series (February-April). Integrated course in anatomy, histology, embryology, physiology and biochemistry. This unit covers cardiopulmonary and gastrointestinal systems.

BMS 9298 Human Structure Function III Credits: 5
Part 3 of a 4 part series (April-May). Integrated course in anatomy, histology, embryology, physiology and biochemistry. This unit covers urinary and reproductive systems.

BMS 9300 Human Gross Anatomy I Credits: 5
Regional study of the anatomy of the chest, abdomen and pelvis. A systematic and regional study of the anatomy of the maxillofacial and anterior neck structures with emphasis on the biomedical applications of the anatomy studies.

BMS 9301 Human Gross Anatomy II Credits: 5
A continuation of BMS 9300.

BMS 9306 Human Gross Anatomy III Credits: 5
A regional approach to the study of the head and neck. Content will include a brief discussion of human anatomy and didactic information on the structures of the head and neck as they relate to the practice of dental hygiene.

BMS 9308 Histology Credits: 2.5
A motivational microanatomic study of the normal morphology of cells, tissues, organs and organ systems to stimulate the learning of terminology and basic cellular structure of the human body.

BMS 9310 Medical Neurosciences Credits: 9
Lecture-based course covering major neurological disorders and disease states. Specific neurologic diseases will be correlated to the didactic sessions by clinicians. Laboratory component is oriented around brain dissection sessions. Laboratory experience will demonstrate gross lesions and integrate the lesions with the clinical symptoms. A variety of supplemental audiovisual material also supports the class.

Prerequisites: Successful completion of HSF III and enrollment in HSF IV.

BMS 9311 Medical Microbiology Credits: 5
Covers basic scientific principles of virology, bacterial physiology and genetics. Presents information relevant to the pathogenesis of human infections caused by viruses, bacteria, fungi, protozoa and helminthes. Provides a concise presentation of basic immunological principles and their clinical relevance. Provides a concise review of antimicrobial therapeutic regimens including mechanism of action and clinical settings in which specific agents might be used. Utilizes case presentations to illustrate the manner in which reasonable differential diagnoses are developed and a rational approach toward empiric antimicrobial usage.

BMS 9399 Human Structure Function IV Credits: 6
Part 4 of a 4 part series (June-July). Integrated course in anatomy, histology, embryology, physiology and biochemistry. This unit covers the head and neck system. Includes a comprehensive examination for the Human Structure Function Series I-IV.

BMS 9701 Clinical Anatomy of Head and Neck Credits: 2-4
A detailed dissection of the maxillofacial and anterior neck regions, with the emphasis being placed on the clinical application of the surgical procedures used in these areas. This course may not be used to satisfy Cell Biology and Biophysics or Molecular Biology and Biochemistry discipline-specific requirements for the Interdisciplinary Ph.D. program.

Health Professions Education Courses

HPRE 5500 Leadership and Administration in Health Professions Education Credits: 3
Current approaches to academic leadership within the context of health professions education. Topics include management skills, problem solving, communication, group skills, motivation, managing conflict, and delegating. Focus on application within the context of health professions education.

HPRE 5508 Principles and Methods of Research Credits: 3
Investigate the role and importance of quantitative, qualitative and mixed-methods research in the health professions. Primary goals are to develop the knowledge and skills to read and interpret educational research in the health professions and to develop a plan to conduct research projects.

HPRE 5522 Curriculum Design in Health Professions Education Credits: 3
Examination of the theory and strategies for the development, implementation, and evaluation of curricula in health professions education. Focus on contextual factors, learner needs, current models, outcome-based approaches, leadership, and faculty development for design and delivery.

HPRE 5530 Current Issues in Health Professions Education Credits: 3
Consideration of the major social, historical, educational, professional, and cultural issues that affect health professions education today. Focus on investigation of various topics as linked to learning and teaching in the health professions. This course will provide the foundations for the Certificate in Health Professions Curriculum and Evaluation.

HPRE 5535 Community Engagement in Education Credits: 3
Provides a foundation grounded in examination of the forces and factors that shape successful community engagement projects associated with measurable outcomes. Students will apply education concepts in developing a project with community partners to identify needs and implement a health improvement project.
HPRE 5540 Independent Study Credits: 1-3
Focused readings and/or special research project in an area selected by the graduate student in consultation with the advisor.

HPRE 5550 Assessment in Health Professions Education Credits: 3
Focus on the design, implementation and evaluation of tools for assessing student learning and performance in health professions education. Consideration of validity, reliability, writing test items, survey design, checklists, observational assessment, simulations and rubrics. Emphasis on best practices, assessment challenges, and on the effective implementation of comprehensive assessment programs in health professions education.

HPRE 5560 Teaching in Health Professions Education Credits: 3
Emphasis on learning and teaching theories and current research in health professions education as applied to instructional methods, delivery, learning contexts. Focus on individual differences, mentoring and tutoring, and on teaching in clinical, small group and large group situations.

HPRE 5566 Teaching about Culture and Health Credits: 3
The course begins with a foundation in cultural competency for health profession educators including content about social determinants of health, health disparities and culturally appropriate care. Curriculum development and instructional design topics including small group facilitation, active learning, case-based learning, use of narrative and media, distance learning, debriefing and assessment are specifically tailored for teaching cultural competency in health professions education.

Prerequisites: HPRE 5560, HPRE 5522, HPRE 5550

HPRE 5580 Program Evaluation in Health Professions Education Credits: 3
Applied research as linked to program development and evaluation in health professions education. Topics include needs assessment, summative and formative evaluations, evaluation paradigms, methodologies, data collection, data analysis, reporting findings. This course is project-based.

Prerequisites: EDUC-R&P 5508.

HPRE 5588 Learning Portfolio in Health Professions Education Credits: 1-3
Learning Portfolio in Health Professions Education (HPRE) is an individualized course which provides the opportunity to document and reflect on academic and applied work related to the learning outcomes of the Master of Health Professions Education program. Students engage in a process of selection, documentation, reflection, and collaboration with the goal of developing deeper understandings regarding their educational development, accomplishments, and application. The course may be taken for 1-3 credit hours per semester, although the full three credit sequence is required.

Prerequisites: Enrollment in the Master’s in Health Professions Education program.

HPRE 5599 Summer Conference in Health Professions Education Credits: 3
The Summer Conference in Health Professions Education provides an opportunity for second year students in the Masters in Health Professions Education program to design, deliver and assess a one day, "mini" conference for area health professions educators. Students will work collaboratively, under faculty guidance, to design objectives, organize resources, develop timelines, publicize, deliver and evaluate a conference designed to reflect a particular theme in health professions education. The conference will consist of educational research presentations, hands-on, skill-based workshops, consultations, and literature/resource dissemination. It will serve to showcase student accomplishments and skills and be open to the public.

HPRE 5899 Required Graduate Enrollment Credit: 1
Required enrollment for students who will graduate during a term when they are not enrolled in a course. Option for students who will complete assignments in order to be eligible for graduation.

Medical Bioinformatics Courses

MEDB 5501 Applied Biostatistics I Credits: 3
Introduction to statistical concepts and analytic methods as applied to health science. Course includes lectures and hands on computer laboratory.

Prerequisites: graduate or professional students and an advanced math course (i.e. Calculus, statistics).

MEDB 5502 Applied Biostatistics II Credits: 3
The second in the Applied Biostatistics sequence and is intended for graduate, doctoral, and professional students in the biological, clinical and medical fields, and medical education. Statistical concepts, analysis methods, and research designs commonly used in these fields are included: diagnostic testing, hypothesis testing, power analysis, analysis of variance, analysis of covariance, multivariate analysis of variance, propensity scoring, simple and multiple regression, logistic regression, and survival analysis. Familiarity with basic statistics and the statistical techniques presented in Applied Biostatistics I is required. Statistical analyses involved in this course will be performed primarily using the SPSS statistical analysis package. The course will also cover the interpretation, presentation and the write up of analytical results and graphs.

Prerequisites: MEDB 5501 Applied Biostatistics I.

MEDB 5503 Mixed-Effects Models Credits: 3
This course will cover the computational basis of mixed-effects models and how to apply these models to analyze data. Students will learn how to graph, investigate, and model data that are not independent and identically distributed, and how to evaluate model fit.

Prerequisites: MEDB 5507, MEDB 5501, MEDB 5502, or equivalents and Linear Algebra is preferred.
MEDB 5505 Introduction to R Credit: 1  
Provides a working familiarity with R. No advanced programming or statistical analytic skills, other than the ability to create and modify text files are needed. Basic methods for data import, data management, simple graphics, and basic statistical analysis are introduced. Provides student with a firm foundation to address these areas in advanced statistics classes or in the student’s research efforts, including thesis/dissertation research. A basic understanding of statistical terminology and a working familiarity with computer-based data files (e.g., Excel) is necessary. Basic understanding of the concepts of computer coding is recommended.

MEDB 5506 Introduction to SPSS Credit: 1  
Session provides a working familiarity with SPSS. Students are not expected to have advanced programming or statistical analysis skills, other than the ability to create and modify text files. Basic methods for data import, data management, simple graphics, and basic statistical analysis are introduced. This class will not cover advanced statistical methods, but will provide the student with a firm foundation to address these areas in advanced statistics classes or in the student’s research efforts, including thesis/dissertation research. A basic understanding of statistical terminology and a working familiarity with computer-based data files (e.g., Excel) is necessary.

MEDB 5507 Introduction to SAS Credit: 1  
Course provides a working familiarity with SAS. Students are not expected to have advanced programming or statistical analysis skills, other than the ability to create and modify text files. Basic methods for data import, data management, simple graphics, and basic statistical analysis are introduced. This class will not cover advanced statistical methods, but will provide the student with a firm foundation to address these areas in advanced statistics classes or in the student’s research efforts, including thesis/dissertation research. A basic understanding of statistical terminology and a working familiarity with computer-based data files (e.g., Excel) is necessary.

MEDB 5510 Clinical Research Methodology Credits: 3  
This course trains the student to contribute to research design, planning, and implementation, and to manage and interpret health-related data. This course will provide a broad overview of clinical research in terms of definition, methodology, conduct and applications. The course will explore basic elements of clinical research including the hierarchy of clinical research design and the conduct of clinical research. Application of clinical research knowledge to specific health-related issues will also be explored. Course topics include: conceiving the research question; study designs; questionnaire construction; research methodology; research ethics; human subjects requirements; the role of statistical analysis in clinical research; research proposal preparation; and research based on analysis of secondary data. Both classroom and online asynchronous sections offered.

MEDB 5511 Principles and Applications of Epidemiology Credits: 3  
This course will provide an introductory overview of the principles of epidemiology and illustrate applications in specialized topic areas. Course lectures will introduce measures of effect used to study disease in human populations, epidemiological study designs, concepts of causal inference, and threats to study validity. Specialized lectures will demonstrate the application of these concepts in select health and disease conditions.

MEDB 5512 Clinical Trials Credits: 3  
Clinical Trials explores the knowledge and skills required to conduct clinical trials, and implications of clinical trials on practice in medicine and allied health.

MEDB 5513 Overview of Health Services Research Credits: 3  
Provides an overview of the U.S. health care and public health systems including issues about cost, access, and quality of health care. This course focuses on the role of research and information in the process of redesigning of health care delivery in the U.S. for the purpose of improving the value of health services.

Prerequisites: Completion of MEDB 5501 Biostatistics I and completion of MEDB 5510 Clinical Research Methodology or MEDB 5511 Principles and Applications of Epidemiology.

MEDB 5514 Human Genome Epidemiology Credits: 3  
Designed for biological researchers and clinicians interested in studying common human diseases using state of the art genomics/genetics epidemiological approaches. Comprehensive introduction to concepts and methodologies of quantitative/statistical genetics, emerging technologies and analytical methods for genomic science, basic study design, utilization of software packages for analyses of genomic data, successful examples of using human genome epidemiology information to improve health, and ethical, legal and social issues in the design and conduct human genome epidemiology research.

MEDB 5520 Introduction to Medical Informatics Credits: 3  
This course provides an overview of Biomedical and Health Informatics. It describes the use of data, information and knowledge in improving healthcare and biomedical research. This includes the use of technology and computers to store, retrieve, and process data. Topics include clinical decision making, standards and clinical terminology, natural language processing, imaging, electronic health records, patient monitoring, consumer health informatics, public health informatics, clinical decision support, bioinformatics, translational bioinformatics and clinical research informatics.

MEDB 5521 Clinical Bioinformatics Credits: 3  
Clinical bioinformatics will provide the foundation required for effective communication between computational, biological and clinical experts. This class uses a series of exercises to enable participants to independently perform gene and protein-based bioinformatics queries and analyses. Throughout the course, core biological principles are explained, as are the foundational technology and computational topics. Students will become proficient with public bioinformatics resources. This course will prepare students to apply the techniques to their research or participation in interdisciplinary clinical terms.
MEDB 5525 Social Determinants of Health Credits: 3
This course will describe how social, economic and political factors affect health. It will examine strategies to address social determinants of health to reduce health inequities. Students will explore how specific social determinants like socioeconomic status, race ethnicity, and lifestyle influence health, use a "life course" approach to look at different stages of life and the effect of social determinants on specific populations.

MEDB 5530 Independent Study I Credits: 1-3
Focused readings and/or special research project in an area selected by the graduate student in consultation with the advisor.

MEDB 5531 Independent Study II Credits: 1-3
Focused readings and/or special research projects in an area selected by the graduate student in consultation with the advisor.

MEDB 5535 Quantitative Aspects of Epidemiologic Research Credits: 3
This course offers students advanced training in the analysis of epidemiological data. Topics include application of common measures of frequency and association, confounding, effect modification, bias, misclassification, and sensitivity analysis in epidemiologic and clinical data sources.

Prerequisites: MEDB 5501, MEDB 5502 and one of the following: MEDB 5510 or MEDB 5511

MEDB 5540 Multidisciplinary Graduate Seminar Credit: 1
This course will be a combination of discussion, presentations, and didactic presentations that will allow students and faculty to exchange information and explore current research across the disciplines that make up the bioinformatics degree program. The course is designed to help student develop critical skills for evaluating published research, designing research projects, and communicating research findings.

MEDB 5550 Health Outcomes Seminar Credit: 1
The course content is guided by a series of seminars presented by researchers who are actively engaged in health outcomes studies. It explores multiple topics that are unique relevant to clinical investigators. Faculty and peer discussion forums highlight key concepts and applications.

MEDB 5560 Medical Decision Making Credits: 3
This course will introduce the concept of medical decision making under uncertainty through an examination of disease probabilities and how they are altered by the characteristics of the diagnostic test being studied or used clinically. Decision trees will be introduced as a mechanism for communicating complex medical decisions and introductory level decision analysis will be presented. The measurement of patient values for alternative outcomes will be introduced as they pertain to direct payoff values as well as modifiers to cost payoffs.

MEDB 5561 Responsible Conduct of Research Credits: 3
An interdisciplinary course which covers principles and day-to-day practicalities of research ethics, information about regulatory requirements for conducting research including safety issues and the use of humans, animals and radioactive biohazardous materials; discuss current issues in the ethical aspects of research, such as scientists’ obligations with respect to public policy and advocacy.

MEDB 5589 Special Topics Credits: 1-3
An opportunity to explore in depth topics not included in usual course offerings. One or more topics will be announced in advance of registration.

MEDB 5591 Internship I Credits: 1-3
Opportunity to apply knowledge and skills in clinical, computational, or genomics research and gain insight into potential career options. Students develop appreciation for teamwork and commitment in professional environments.

Prerequisites: MEDB 5501, MEDB 5502, MEDB 5510, MEDB 5513.

MEDB 5592 Internship II Credits: 1-3
Opportunity to apply knowledge and skills in clinical, computational, or genomics research and gain insight into potential career options. Students develop appreciation for teamwork and commitment in professional environments. Internship II is applicable to students who have previously completed 3 hours of internship.

Prerequisites: MEDB 5501, MEDB 5502, MEDB 5510, MEDB 5513, MEDB 5591.

MEDB 5595 Capstone Experience Credits: 3
This course is designed for the non-thesis student to demonstrate that they have mastered key learning objectives expected of the graduating master’s student in the Clinical Research emphasis area. After completion of the core courses in the Masters of Bioinformatics curriculum, students will apply their learning to developing, implementing and presenting results from a project that demonstrates integration of the knowledge, abilities and values emphasized in the degree program.

MEDB 5599 Research and Thesis Credits: 1-6
Research for thesis.

MEDB 5699 Research and Dissertation Credits: 1-12
Research and dissertation preparation for IPhD degree students participating in Biomedical and Health Informatics primary and co-discipline.

Prerequisites: instructor approval

MEDB 5899 Required Graduate Enrollment Credit: 1
Medicine Courses

MEDICINE 9110 Fundamentals of Medical Practice I Credits: 5
Introduces students to professional values, attitudes and skills required to practice medicine competently. Develops student competence in basic communication, relationship-building and patient centered interviewing skills. Provides self-awareness and personal growth strategies that facilitate the acquisition of professional behavior affecting honesty and integrity, compassion and altruism, as well as the management of stress. Explores non-biological factors influencing health and the appreciation of different value systems and life styles. Promotes ethical considerations relating to professional behavior and student conduct as a forerunner to professional behavior. Emphasizes the team approach in solving medical problems through direct small group activities as part of weekly onsite docent experiences. Integrates patient interviews and examinations with sciences fundamental to clinical medicine.

MEDICINE 9115 Medical Terminology Credit: 1
1 credit hour/twice weekly each semester. Methodical introduction to the language of medicine and its usage in modern clinical documentation. Introduces word elements in a logical, graduated sequence correlated with laboratory practice. Encourages skills in etymological analysis based on the word elements presented to facilitate interpretation of composite medical terms.

MEDICINE 9119 Learning Basic Medical Sciences Credit: 1
1 credit hour/1 hour per week. Provides students with an understanding of their own learning processes and those study strategies that promote maximum learning efficiency. Active participation in course increases achievement in both science and non-science courses, smooths transition to college-level work, and further develops reasoning and thinking skills that apply to medical school.

MEDICINE 9120 Fundamentals of Medical Practice II Credits: 5
Introduces students to professional values, attitudes and skills required to practice medicine competently. Develops student competence in basic communication, relationship-building and patient centered interviewing skills. Provides self-awareness and personal growth strategies that facilitate the acquisition of professional behavior affecting honesty and integrity, compassion and altruism, as well as the management of stress. Explores non-biological factors influencing health and the appreciation of different value systems and life styles. Promotes ethical considerations relating to professional behavior and student conduct as a forerunner to professional behavior. Emphasizes the team approach in solving medical problems through direct small group activities as part of weekly onsite docent experiences. Integrates patient interviews and examinations with sciences fundamental to clinical medicine.

MEDICINE 9122 Fundamentals Of Medical Practice III Credits: 5
5 credit hours, 3 hours per week onsite, 2 hours lecture. Reinforces important concepts in diversity and professionalism. Continues the team approach in solving medical problems through direct small group activities as part of weekly onsite docent experience.

MEDICINE 9120 Fundamentals Of Medical Practice IV Credits: 5
5 credit hours, 3 hours per week onsite, 2 hours lecture. Reinforces important concepts in diversity and professionalism. Continues the team approach in solving medical problems through direct small group activities as part of weekly onsite docent experiences. Integrates patient interviews and examinations with sciences fundamental to clinical medicine, including biochemistry, anatomy, physiology, biochemistry and social sciences. Exposes students to a series of interviews with seasoned professionals who address issues of professionalism and career development.

MEDICINE 9221 Hospital Team Experience Credit: 1
1 credit hour/2-week assignment in hospital. Teaches students to make good observations, interact appropriately with patients, family, and hospital staff, assist with non-physician duties, and perform technical skills appropriate to assigned departments. Facilitates understanding of allied health care personnel roles in patient care, communication among health care professionals and its influence on the delivery of health care and patient outcomes, and the hospital process and structure of authority within the hospital.

MEDICINE 9308 Clinical Practice of Medicine I Credits: 3
Basic communication/clinical examination skills will be taught in the classroom with skills workshops. Students will learn to enhance their communication skills with patients and their families aligned with a systems-based approach to the physical examination. Students will also begin to practice complaint-based histories and a review of systems to prepare them for their Year 3 Continuing Care Clinic Clerkship and clinical decision-making. Students will practice communication and interpersonal skills in small groups and also have the opportunity to practice examination skills in workshops, with standardized patients, and linked to their experiences in the Continuing Care Clinic clerkship.
Prerequisites: Successful completion of HSF III, and enrollment in HSF IV.

MEDICINE 9309 Clinical Practice of Medicine II Credits: 5
Advanced communication/physical examination skills will be taught in the classroom with communication skills workshops. Students will learn/practice skills to communicate/examine patients aligned with a systems-based pathophysiology approach. Students will learn/practice a complaint-based HP exam by system aligned to their objectives in the Pathology II: Pathophysiology course. Students will learn/develop skills in clinical diagnosis and decision-making by system that includes instruction/practice on more advanced physical examination skills. Students will practice communication and interpersonal skills in small groups and also have the opportunity to practice examination skills in workshops, with standardized patients, and linked to their experiences in the Continuing Care Clinic.
Prerequisites: Successful completion of HSF III, and enrollment in HSF IV.

MEDICINE 9310 History of Medicine Credit: 1
In this course students will learn the ways disease has altered history and that conceptions of disease undergo constant change. Topics covered include diseases and their relationships to other medical sciences, as well as the historical and scientific developments which led to our present understanding of diseases and medicine.
MEDICINE 9312 Pathology I: General Pathology, Genetics, and Immunology Credits: 10
Students will learn and be able to apply basic science education in the clinical practice of medicine. This application includes the areas of gross and microscopic anatomy, biochemistry, genetics, pathophysiology, and immunology. Students will develop a basic understanding of laboratory tests. They will develop competency in clinical diagnosis based on pathologic findings related to anatomic pathology, laboratory medicine and pathophysiology. Course materials will also cover prevention of disease and disability, global health issues, forensic medicine and pathology, age and gender-related issues in pathology and medicine, and appropriate utilization of Pathology and Laboratory Medicine Services.

MEDICINE 9313 Pathology II: Systems-Based Pathology and Pathophysiology Credits: 11
Students will learn and apply basic science education in the clinical practice of medicine through systems-based teaching about disease. This application includes the areas of biochemistry, genetics, pathophysiology, and medical microbiology. Students will expand their understanding of basic laboratory tests with a focus on interpretation and gain familiarity with more complex or specialized laboratory tests, enhancing their abilities in test selection and interpretation. They will also begin to approach a multi-system health problem in terms of its pathogenesis, the mechanisms of systemic interactions, and consequent/subsequent potential complications. Content areas emphasized include cardiovascular, lymphatic, hematologic, gastrointestinal, renal, hepatic, and genitourinary systems.

MEDICINE 9383 Continuing Care Clinic Credits: 5
Provides ambulatory and continuous care experience in general medicine clinics. The docent teams are assigned to a clinic in which students see and follow a panel of patients on a continuous basis for up to four years, where necessary, under the supervision of docents. Provides continuity of care from inpatient hospitalization to outpatient care, allowing longitudinal experience for the student and personalized care for the patients. Allows students to observe the natural progression of disease and experience the rewards and challenges of an ongoing doctor-patient relationship.

MEDICINE 9385 Introduction to Pharmacology Credits: 2
Consists of self-paced, independent learning, computer-based instruction. Introductory principles of pharmacology are covered that provide students with basic knowledge and skills necessary for upcoming didactic and clinical curriculum. Students become familiar with drug information resources, pharmaceutical calculations, and prescription writing skills, and learn basic mechanisms of drug action, preventive therapeutics and pharmacokinetic principles.

MEDICINE 9387 Extended Clinic I Credits: 5
MEDICINE 9390 Clinical Correlations Credits: 5
5 credit hours. Case-based discussions provided by clinicians that serve to reinforce basic science concepts provided during BMS 9296, BMS 9297, and BMS 9298.

MEDICINE 9401 Internal Medicine/Docent Instruction Yr 4 Credits: 10
Students spend this eight-week rotation on the medical wards at Truman Medical Center, each working as an integral member of a docent team that includes the docent, residents and attending health care staff. Year 3 and 5, and Year 4 and 6 students are paired together in a junior-senior partnership. Rounds, conference and consultations.

MEDICINE 9408 Pharmacology Credits: 10
Introduces the study of the interaction of drugs with biological systems. Provides the medical student with relevant basic pharmacology of the model drugs under clinical investigation and in use today. Includes extensive small group activities.

MEDICINE 9471 Family Medicine Credits: 5
Exposes students to the unique specialty that focuses on the family. Students experience the act of medicine as well as science, working with patients in the context of their family and community. Includes care of the child, the adolescent, pregnant women, young and middle aged adults, and the elderly. Addresses ambulatory medicine, prevention and health maintenance.

MEDICINE 9472 Behavioral Science in Medicine Credits: 5
Teaches the basic taxonomy, assessment methods and treatment interventions of chemical dependence and major psychiatric disorders. Serves as preparation for the psychiatry rotation. Examines relevant ethical issues commonly faced in current medical practice. Utilizes case studies and a problem-centered approach in addition to clinical experience including home health care visits, supervised interviewing, and time on an inpatient chemical dependency unit. Challenges the student to achieve an integrated theoretical understanding of various approaches in behavioral sciences as a background for meeting patients needs. Teaches communication skills including education of older patients.

MEDICINE 9482 Patient, Physician, Society I Credits: 2
Introduces students to a 7-week unit emphasizing medical decision making. Introduces students to a 6-week unit which focuses on public health. Activities include lecture, problem sets, small group projects.

MEDICINE 9483 Continuing Care Clinic Credits: 5
Provides ambulatory and continuous care experience in general medicine clinics. The docent teams are assigned to a clinic in which students see and follow a panel of patients on a continuous basis for up to four years, where necessary, under the supervision of docents. Provides continuity of care from inpatient hospitalization to outpatient care, allowing longitudinal experience for the student and personalized care for the patients. Allows students to observe the natural progression of disease and experience the rewards and challenges of an ongoing doctor-patient relationship.

MEDICINE 9483RC Year Four Repeat Clinic Credits: 5
Prerequisites: Year 3 clinic.

MEDICINE 9484 Patient, Physician, Society II Credits: 2
Introduces students to a unit emphasizing medical ethics and palliative care. Activities include lecture, small group sessions, and assigned readings.
and ethical responsibilities of the M.D. degree. This course fulfills the requirement for a Medical Humanities course in year 5 or year 6.

This course provides the basic doctrines and principles of the law that form the foundation for legally and ethically sound medical practice. It includes developments in the U.S. health care delivery and in the field of bioethics are identified along with the impact on practice of medicine. Lecture, discussion, and writing about legal and ethical issues related to the practice of medicine prepares students in Year 5 and Year 6 to assume the legal and professional responsibilities of the M.D. degree. This course fulfills the requirement for a Medical Humanities course in year 5 or year 6.

This course is intended to improve our empathy for patients and peers.

Reading about the ways in which people interact with professionals, patients, and disease can enrich our understanding of cultural, economic, and social issues. Medical literature is a diverse field and it increases our awareness of the different reactions to medicine and illness. This course will explore ways in which music and medicine interact, including the following topics: therapeutic applications of music (music therapy), current research on how the brain processes music, the treatment of medical themes (including illness and disease, patients, physicians, and human experimentation) in musical works, and how certain composers' medical conditions affected their creative output.

This course considers the continually evolving relationship between medicine, war, and the arts, from the slaughter of the American Civil War (1861-65) to today's conflicts in Iraq. Our focus is on the extraordinary difficult medical and ethical decisions faced by physicians in times of war, and the ways in which those experiences are reflected in the arts. Topics include the effects of disease on armies, biological warfare, the development of ambulance and hospital services in the Civil War, battlefield medicine, the diagnosis and treatment of shellshock victims in WWI, chemical warfare, the pioneering of plastic surgery, triage techniques in WWII, nuclear warfare, and the personal experiences of physicians in the Vietnam and Iraq wars.

This course will explore ways in which physicians, patients, and medical students have been portrayed in Hollywood films over the course of the twentieth and the early twenty-first centuries. Compassion, idealism, and heroism were common traits in early doctor movies but there was also a recurrent theme of the greedy callous doctor who valued research over patient welfare, and profits over ethics. We discuss how films reflected, changed, and molded perceptions of physicians and patients in the past, and examine what contemporary portrayals of the medical profession can tell us about the expectations and fears of patients today.

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This course explores the role of music in medicine, focusing on its therapeutic and educational applications, and on the influence of medical conditions on composers' creative output. The course covers the therapeutic use of music in medical settings, the relationship between music and healing, and the impact of medical conditions on musicians and composers. It also examines the role of music in medical education and research, and the ways in which composers with medical conditions have contributed to the genre.
MEDICINE 9570 Family Medicine Preceptorship Credits: 5
Provides work experience with a rural Missouri physician. Helps students understand the responsibilities and importance of family physicians in the provision of health care. Provides continuing emphasis on the need for and importance of family practice.

MEDICINE 9571 Psychiatry Rotation Credits: 5
Gives each medical student a clinical assignment that involves responsibility for patient care under supervision on the adult inpatient service and experience in the clinic. Includes seminars in psychopathology, psychiatric syndromes, mechanisms of defense, psychopharmacology, drug and alcohol abuse and specific psychosocial assessment.

MEDICINE 9578 Medicine and Art Credits: 5
Lecture, discussion.

MEDICINE 9583 Continuing Care Clinic Credits: 5
Provides ambulatory and continuous care experience in general medicine clinics. The docent teams are assigned to a clinic in which students see and follow a panel of patients on a continuous basis for up to four years, where necessary, under the supervision of docents. Provides continuity of care from inpatient hospitalization to outpatient care, allowing longitudinal experience for the student and personalized care for the patients. Allows students to observe the natural progression of disease and experience the rewards and challenges of an ongoing doctor-patient relationship.

MEDICINE 9583RC Year Five Repeat Clinic Credits: 5
Monthlong course in which students repeat or complete outstanding requirements of Year 5 Continuing Care Clinic.

MEDICINE 9585 Prescribing for Special Populations Credits: 2
Consists of a self-paced, independent learning, computer-based instruction. Teaches principles of prescribing for special populations. Students learn to recognize special patients and to assess risks and benefits and individualize drug therapy in special patient situations. The course addresses concepts of pharmacology in five commonly-encountered special populations: pediatrics, elderly, patients with liver or kidney disease, and pregnant or breast-feeding patients.

MEDICINE 9587 Extended Clinic III Credits: 5

MEDICINE 9594 Medicine and Body Image Credits: 5
Lecture, discussion, writing about ethical issues related to death.

MEDICINE 9601 Internal Medicine/Docent Instruction Yr 6 Credits: 10
Students spend this eight-week rotation on the medical wards at Truman Medical Center, each working as an integral member of a docent team that includes the docent, residents and attending health care staff. Year 3 and 5, and Year 4 and 6 students are paired together in a junior-senior partnership. Rounds, conference and consultations.

MEDICINE 9678 Emergency Medicine Credits: 5
Based at Truman Medical Center Hospital Hill or Saint Luke's Hospital of Kansas City, the major affiliated adult hospitals for the School of Medicine. Emphasizes principles, concepts and skills necessary for the initial evaluation and care of medical and surgical emergencies. Teaches management of simple lacerations, burns, contusions, sprains, and infections, and recognition of life threatening emergencies and initiation of emergency care in response.

MEDICINE 9683 Continuing Care Clinic Credits: 5
Provides ambulatory and continuous care experience in general medicine clinics. The docent teams are assigned to a clinic in which students see and follow a panel of patients on a continuous basis for up to four years, where necessary, under the supervision of docents. Provides continuity of care from inpatient hospitalization to outpatient care, allowing longitudinal experience for the student and personalized care for the patients. Allows students to observe the natural progression of disease and experience the rewards and challenges of an ongoing doctor-patient relationship.

MEDICINE 9685 Rational and Safe Drug Prescribing Credits: 2
Consists of self-paced, independent learning, computer-based instruction. Teaches principles of clinical pharmacology that will assist the student in responsibly prescribing medications. Students develop skills in making informed clinical decisions through studying topics such as literature evaluation, medication errors, adverse drug reactions, drug allergies, drug interactions, overdose management, alternative therapies, and therapeutic drug monitoring.

MEDICINE 9687 Extended Clinic IV Credits: 5

MEDICINE 9714A2 Academic General Year I Credit: 1

MEDICINE 9715A1 Independent Readings Month Credits: 5

MEDICINE 9716A1 Independent Study Month Credits: 5

MEDICINE 9732 Academic-Biomedical and Health Informatics Credits: 5

MEDICINE 9816C11 Family Practice Sub-Internship Credits: 5
Sub-internship in Family Medicine

MEDICINE 9818-C11 Special Topics - Community and Family Medicine Credits: 5
Special Topics - Community and Family Medicine

MEDICINE 9818-C21 Special Topics - Internal Medicine Credits: 5
Special Topics - Internal Medicine
MEDICINE 9818-C31 Special Topics - Neurology/Psychiatry Credits: 5
Special Topics - Neurology/Psychiatry
MEDICINE 9818-C41 Special Topics-OB/GYN REI SUB-I Credits: 5
Special Topics-OB/GYN REI SUB-I
MEDICINE 9818-C51 Special Topics - Pathology Credits: 5
Special Topics - Pathology
MEDICINE 9818-C61 Special Topics - Pediatrics Credits: 5
Special Topics - Pediatrics
MEDICINE 9818-C71 Special Topics - Radiology Credits: 5
Special Topics - Radiology
MEDICINE 9818-C81 Special Topics - Surgery Credits: 5
Special Topics - Surgery
MEDICINE 9818-C91 Special Topics - Miscellaneous Credits: 5
Special Topics - Miscellaneous
MEDICINE 9818-C92 Special Topics - Miscellaneous Credits: 5
Special Topics - Miscellaneous
MEDICINE 9842-C21 Internal Medicine Sub-Internship Credits: 5
MEDICINE 9850-C31 Neurology Sub-Internship Credits: 5
MEDICINE 9870C41 Obstetrics and Gynecology - Sub-Internship Credits: 5
MEDICINE 9898-C61 Internal Medicine/Pediatrics-Sub-Internship Credits: 5
**Prerequisites:** Successful completion of the core Internal Medicine and Pediatrics clerkships.

MEDICINE 9899-C61 Internal Medicine Pediatrics Clinic Credits: 5
MEDICINE 9921-C61 Pediatrics Sub-Internship Credits: 5
MEDICINE 9922-C61 Neonatal Intensive Care Sub-Internship Credits: 5
MEDICINE 9923-C61 Pediatrics-Rehabilitation Credits: 5
MEDICINE 9924-C61 Pediatrics-Dermatology Credits: 5
MEDICINE 9925-C61 Pediatrics-Ophthalmology Credits: 5
MEDICINE 9926-C61 Pediatrics-Genetics Credits: 5
MEDICINE 9927-C61 Pediatrics-Neurology Credits: 5
MEDICINE 9928-C61 Pediatrics-Child and Adolescent Psychiatry Credits: 5
MEDICINE 9929-C61 Pediatrics-Plastic Surgery Credits: 5
MEDICINE 9930-C61 Pediatrics-Orthopedic Surgery Credits: 5
MEDICINE 9940-C61 Pediatrics-Allergy and Immunology Credits: 5
MEDICINE 9945-C81 Anesthesiology-Sub-Internship Credits: 5
MEDICINE 9972-C81 Surgery-General Sub-Internship Credits: 5
MEDICINE 9973-C81 Surgery Orthopedics Sub-Internship Credits: 5
MEDICINE 9974-C81 Surgery Neurological Sub-Internship Credits: 5
MEDICINE 9975-C81 Surgery-Trauma Credits: 5
MEDICINE 9976-C81 Surgery - Oral and Maxillofacial Surgery Credits: 5
MEDICINE 9977-C81 Surgical Oncology Credits: 5
Elective in Surgical Oncology.

MEDICINE 9985 Miscellaneous - Medical Clinical Nutrition Credits: 5
Build upon basic (biochemistry/physiology) and clinical science knowledge and skills in order to be able to perform nutrition assessments in children/adults, counsel patients and families on nutrition, order medical nutrition therapy, work with multidisciplinary teams, and appropriately refer for specialized nutrition/feeding services. The elective utilizes didactic instruction, case studies, team projects, individual assignments, and outside reading combined with clinical/community experiences to facilitate student acquisition of knowledge/skills. Gain an appreciation of nutritional therapy from both the clinician and patient/family perspective. Didactic sessions, case studies, and clinical experiences are designed to augment students’ outside reading of assigned and suggested references.
**Physician Assistant Courses**

- **MEDPA 5501 Anatomy for the Physician Assistant**
  Credits: 3
  This course studies the anatomy of the human body and its correlation and relationship of anatomic configuration to diagnosis of clinical problems. Limited to MMSPA students.

- **MEDPA 5502 Foundations in Basic Medical Science**
  Credits: 4
  This course introduces the basic principles of biochemistry, microbiology, immunology, and pharmacology which prepares the student for Science and Practice of Medicine I - IV.
  **Prerequisites:** Limited to MMSPA students.

- **MEDPA 5503 Research Applications in Medicine**
  Credit: 1
  This course introduces the student to clinical research in medicine and its application to clinical decision making through the concepts and principles of evidence-based medicine.

- **MEDPA 5504 Ethics, Law and Policy**
  Credit: 1
  This course examines ethical rules, principles, and theories as they relate to health care.

- **MEDPA 5505 Clinical Assessment for the PA**
  Credit: 2
  This course will focus on developing foundational physical exam and history taking skills for the physician assistant.

- **MEDPA 5511 Clinical Practicum I**
  Credit: 1
  The Clinical Practicum course series will develop professional behaviors, reinforce effective communication with classmates, patients and preceptors, introduce patient safety concepts and give the student clinical experience under preceptor supervision to develop and apply the skills learned in the curriculum.

- **MEDPA 5512 Clinical Practicum II**
  Credit: 1
  This course will consist of a variety of activities including lectures, clinical exposure, interprofessional education activities, service learning, and community health experiences. Emphasis will be on developing communication skills, exhibiting professional behaviors, recognizing diversity and needs of the community, and identifying attributes of a health care team.
  **Prerequisites:** MEDPA 5511.

- **MEDPA 5513 Clinical Practicum III**
  Credit: 1
  This course will consist of a variety of activities including lectures, clinical exposure, interprofessional education activities, service learning, and community health experiences. Emphasis will be on developing communication skills, exhibiting professional behaviors, recognizing diversity and needs of the community, and identifying attributes of a health care team.
  **Prerequisites:** MEDPA 5512.

- **MEDPA 5514 Clinical Practicum IV**
  Credit: 1
  This course will consist of a variety of activities including lectures, clinical exposure, interprofessional education activities, service learning, and community health experiences. Emphasis will be on developing communication skills, exhibiting professional behaviors, recognizing diversity and needs of the community, and identifying attributes of a health care team.
  **Prerequisites:** MEDPA 5513.

- **MEDPA 5521 PA Professions I**
  Credit: 1
  This course in the PA Professions series that will focus on the history of the PA profession including the social, regulatory, ethical and professional aspects. Instruction will also be provided in clinical management practices and procedures including coding systems for diagnosis and reimbursement, quality assurance and risk management.

- **MEDPA 5522 PA Professions II**
  Credit: 1
  This course focuses on the impact of racial, ethnic and socioeconomic health disparities on health care delivery. The student will become aware of differing health beliefs, values and expectations of patients and other health care professionals that can affect communication, decision-making, compliance and health outcomes.

- **MEDPA 5523 PA Professions III**
  Credit: 1
  This course in the PA Professions series will provide basic doctrines and principles of the law to serve as a foundation for legally and ethically sound medical practice. It will include a comprehensive coverage of the history of legal medicine in the United States, the dynamics of the law applied to medical issues and the recent developments in health care delivery and biomedical issues. The legal and ethical issues of narrative medicine in medical practice and its practical applications will be explored and discussed.

- **MEDPA 5524 PA Professions IV**
  Credit: 1
  This course in the PA Professions will give students knowledge of the evolution of the health care industry’s components and describe the technical, economic, political and social forces that shaped their development. Principles of health policy and public health will be discussed so the student will have a systematic way of thinking about health care in the United States, its problems and the alternatives for managing these problems.

- **MEDPA 5531 Science and Practice of Medicine I**
  Credits: 9
  This is a first of four series course that will address the physiology, pathophysiology, basic medical science, clinical presentation, pharmacotherapeutics, physical exam and clinical skills of disease processes presented in a systems format.
MEDPA 5532 Science and Practice of Medicine II Credits: 12
This is the second of a four series course that will address the physiology, pathophysiology, basic medical science, clinical presentation, pharmacotherapeutics, physical exam and clinical skills of disease processes presented in a systems format.
Prerequisites: MEDPA 5531.

MEDPA 5533 Science and Practice of Medicine III Credits: 20
This is the third of a four series course that will address the physiology, pathophysiology, basic medical science, clinical presentation, pharmacotherapeutics, physical exam and clinical skills of disease processes presented in a systems format.
Prerequisites: MEDPA 5532.

MEDPA 5534 Science and Practice of Medicine IV Credits: 19
This is the fourth in a four series course that will address the physiology, pathophysiology, basic medical science, clinical presentation, pharmacotherapeutics, physical exam and clinical skills of disease processes presented in a systems format.
Prerequisites: MEDPA 5533.

MEDPA 5580 Senior Seminar Credit: 1
This course will focus on discussion, study, and review of previously covered health topics in preparation for the Physician Assistant National Certification Exam (PANCE).

MEDPA 5581 Professional Development for the PA Credits: 0.5
This course focuses on professional development topics for the graduating PA students. Students attend and participate in seminars and discussions pertinent to employment and practice as a PA. Students enroll in the course each of the three semesters that make up the program clinical phase (semesters 5, 6, and 7).
Prerequisite: Must be a student in the MMS Physician Assistant program.

MEDPA 5589 Special Topics Credits: 1-3
An opportunity to explore in depth topics not included in usual course offerings. One or more topics will be announced in advance of registration.

MEDPA 5595 Capstone Credit: 1
This course will align didactic, clinical and professional instruction as well as Graduate Learning Competencies into a project that will have lasting impact for patients, clinical practice, PA education and/or the PA profession.

MEDPA 5610 Family Medicine I Rotation Credits: 4
This is a required 4-week rotation in an ambulatory family medicine setting.

MEDPA 5611 Family Medicine II Rotation Credits: 4
This is a required 4-week rotation in an ambulatory family medicine setting.

MEDPA 5612 Elective Family Medicine Rotation - 4 week Credits: 4
This is an elective 4-week rotation in an ambulatory family medicine setting.

MEDPA 5613 Elective Family Medicine Rotation II - 4 week Credits: 4
This is an elective 4-week rotation in an ambulatory family medicine setting.

MEDPA 5614 Elective Family Medicine Rotation I-2 week Credits: 2
This is an elective 2-week rotation in an ambulatory family medicine setting.

MEDPA 5615 Elective Family Medicine Rotation II - 2 week Credits: 2
This is an elective 2-week rotation in an ambulatory family medicine setting.

MEDPA 5620 Internal Medicine Rotation I Credits: 4
This is a required 4-week rotation in inpatient and/or outpatient adult medicine setting.

MEDPA 5621 Internal Medicine Rotation II Credits: 4
This is a required 4-week rotation in inpatient and/or outpatient adult medicine setting.

MEDPA 5622 Elective Internal Medicine Rotation I Credits: 4
This is an elective 4-week rotation in inpatient and/or outpatient adult medicine setting.

MEDPA 5623 Elective Internal Medicine Rotation II Credits: 4
This is an elective 4-week rotation in inpatient and/or outpatient adult medicine setting.

MEDPA 5624 Elective Internal Medicine Rotation I - 2 week Credits: 2
This is an elective 2-week rotation in inpatient and/or outpatient adult medicine setting.

MEDPA 5625 Elective Internal Medicine Rotation II - 2 week Credits: 2
This is an elective 2-week rotation in inpatient and/or outpatient adult medicine setting.

MEDPA 5630 Emergency Medicine Rotation Credits: 4
This is a required 4-week rotation in an emergency medicine setting.

MEDPA 5632 Elective Emergency Medicine I - 4 week Credits: 4
This is an elective 4-week rotation in the emergency medicine setting.
MEDPA 5633 Elective Emergency Medicine II - 4 week Credits: 4
This is an elective 4-week rotation in the emergency medicine setting.

MEDPA 5634 Elective Emergency Medicine I - 2 week Credits: 2
This is an elective 2-week rotation in the emergency medicine setting.

MEDPA 5635 Elective Emergency Medicine II - 2 week Credits: 2
This is an elective 2-week rotation in the emergency medicine setting.

MEDPA 5640 Women's Health Rotation Credits: 4
This is a required 4-week rotation in a women’s health setting.

MEDPA 5642 Elective Women’s Health Rotation I - 4 week Credits: 4
This is an elective 4-week rotation in a women’s health setting.

MEDPA 5643 Elective Women’s Health Rotation II - 4 week Credits: 4
This is an elective 4-week rotation in a women’s health setting.

MEDPA 5644 Elective Women’s Health I - 2 week Credits: 2
This is an elective 2-week rotation in a women’s health setting.

MEDPA 5645 Elective Women’s Health II - 2 week Credits: 2
This is an elective 2-week rotation in a women’s health setting.

MEDPA 5650 Pediatrics Rotation Credits: 4
This is a required 4-week rotation in a pediatric medicine setting.

MEDPA 5652 Elective Pediatrics Rotation I Credits: 4
This is an elective 4-week rotation in a pediatric medicine setting.

MEDPA 5653 Elective Pediatrics Rotation II Credits: 4
This is an elective 4-week rotation in a pediatric medicine setting.

MEDPA 5654 Elective Pediatrics Rotation I - 2 week Credits: 2
This is an elective 2-week rotation in a pediatric medicine setting.

MEDPA 5655 Elective Pediatrics Rotation II - 2 week Credits: 2
This is an elective 2-week rotation in a pediatric medicine setting.

MEDPA 5660 General Surgery Rotation Credits: 4
This is a required 4-week rotation in a general surgery setting.

MEDPA 5662 Elective Surgery Rotation I Credits: 4
This is an elective 4-week rotation in a surgery setting.

MEDPA 5663 Elective Surgery Rotation II Credits: 4
This is an elective 4-week rotation in a surgery setting.

MEDPA 5664 Elective Surgery Rotation I - 2 week Credits: 2
This is an elective 2-week rotation in a surgery setting.

MEDPA 5665 Elective Surgery Rotation II - 2 week Credits: 2
This is an elective 2-week rotation in a surgery setting.

MEDPA 5670 Behavioral Medicine Rotation Credits: 4
This is a required 4-week rotation in a behavioral health setting.

MEDPA 5671 Behavioral Medicine Rotation - 2 week Credits: 2
This is a required 2-week rotation in a behavioral health setting.

MEDPA 5672 Elective Behavioral Medicine I Credits: 4
This is an elective 4-week rotation in the behavioral medicine setting.

MEDPA 5673 Elective Behavioral Medicine II Credits: 4
This is an elective 4-week rotation in the behavioral medicine setting.

MEDPA 5674 Elective Behavioral Medicine I - 2 week Credits: 2
This is an elective 2-week rotation in the behavioral medicine setting.

MEDPA 5675 Elective Behavioral Medicine II - 2 week Credits: 2
This is an elective 2-week rotation in the behavioral medicine setting.

MEDPA 5680 Geriatrics Rotation Credits: 4
This is a required 4-week rotation in a geriatric specialty care setting.

MEDPA 5681 Geriatrics Rotation - 2 week Credits: 2
This is a required 2-week rotation in a geriatric specialty care setting.
MEDPA 5682 Elective Geriatrics Rotation I Credits: 4
This is an elective 4-week rotation in the geriatric medicine setting.

MEDPA 5683 Elective Geriatrics Rotation II Credits: 4
This is an elective 4-week rotation in the geriatric medicine setting.

MEDPA 5684 Elective Geriatrics Rotation I - 2 weeks Credits: 2
This is an elective 2-week rotation in the geriatric medicine setting.

MEDPA 5685 Elective Geriatrics Rotation II - 2 weeks Credits: 2
This is an elective 2-week rotation in the geriatric medicine setting.

MEDPA 5690 Elective Clinical Rotation I Credits: 4
This is a 4-week clinical rotation experience in a new setting or an established area that students wish to gain additional experience.

MEDPA 5691 Elective Clinical Rotation II Credits: 4
This is a 4-week rotation in a newly or recently established clinical setting.

MEDPA 5692 Elective Clinical Rotation I - 2 week Credits: 2
This is a 2-week clinical rotation experience in a new setting or an established area that students wish to gain additional experience.

MEDPA 5693 Elective Clinical Rotation II - 2 week Credits: 2
This is a 2-week clinical rotation experience in a new setting or an established area that students wish to gain additional experience.

MEDPA 5899 Required Graduate Enrollment Credit: 1
Required Graduate Enrollment.
Medical Degree Programs

B.A. / M.D. (p. 1518)

Program Overview (p. 1518)
From high school student to medical student (p. 1518)
A medical student’s journey begins as soon as they enter the UMKC School of Medicine’s B.A./M.D. program. Immediate exposure to a curriculum that builds a strong foundation in medical science and clinical skills is integrated with the liberal arts and humanities into a year-round program. Our program allows students to choose an undergraduate major and earn their B.A. and M.D. in six years. (p. 1518)

M.D. Program (p. 1524)

Program Overview (p. 1524)
The UMKC School of Medicine offers an opportunity for medical education to students who have obtained, or will soon earn, a baccalaureate degree. This program is the M.D. Program. Students interested in the M.D. Program must apply for admission between May 1 and August 1. If selected for admission, students will begin coursework in January. (p. 1524)
B.A. / M.D.

B.A./M.D. Program

Program Overview

From high school student to medical student

A medical student’s journey begins as soon as they enter the UMKC School of Medicine’s B.A./M.D. program. Immediate exposure to a curriculum that builds a strong foundation in medical science and clinical skills is integrated with the liberal arts and humanities into a year-round program. Our program allows students to choose an undergraduate major and earn their B.A. and M.D. in six years.

During the first two years of the program, three-fourths of a student’s time is dedicated to the arts and sciences to fulfill baccalaureate degree requirements, while one-fourth is spent in medical school coursework. In the final four years of the program, the majority of the student’s time is spent in medical school coursework with a smaller percentage of time spent completing baccalaureate degree requirements.

Students pursue baccalaureate degrees in a variety of areas:

- Liberal Arts (https://cf1.umkc.edu/majormaps)
- Chemistry (https://cf1.umkc.edu/majormaps)
- Biology (https://cf1.umkc.edu/majormaps)

The ability to pursue certain undergraduate degree options is dependent on the college credit a student is able to transfer in from high school. College credit may be accepted for Advanced Placement, International Baccalaureate, CLEP or dual-enrollment courses.

Clinical Experience and Physician Interaction

Students begin clinical experiences in the third week of the program through the docent system. A docent is a teaching physician who also serves as a mentor as a student advances through the curriculum. In years 1 – 2, students are assigned to docent teams of 10 – 15 students from their class. In this early docent experience, students are educated and mentored on the fundamentals of medicine.

In years 3 – 6, students are assigned to docent teams of 12-15 year 3 – 6 students, a docent, a clinical pharmacologist, a clinical medical librarian, an education team coordinator and other health care professionals. In this docent experience, students spend a half day per week every week assisting with outpatient care in a continuing care clinic. This team also works together on the internal medicine rotation two months out of the year in years 4 – 6.

Research

Students have the opportunity to work with faculty in both clinical and research settings. Students involved in research have the opportunity to present their findings each spring at the annual Student Research Summit, and funding is available to support student research projects. The Office of Research Administration facilitates student research programs as well as coordinates supplemental research lectures and seminars.

Service

Students at the UMKC School of Medicine have the opportunity to develop community partnerships, provide community service and reflect upon their experiences. Students participate in service-based programs, such as the Sojourner Clinic, a free outpatient clinic developed and managed by medical students, and the Kansas City Free Eye Clinic.

Core Competencies

Our curriculum utilizes experiences with patients, peers and faculty in clinical settings that develop students who are passionate about medicine. Students learn the skills and attitudes for compassion, honesty and integrity which receive the same priority as scientific and technical skills.

To further develop these skills and attitudes, the School of Medicine uses the following core competencies as the foundation for all educational experiences, as well as the selection of new students.

Interpersonal and communication skills are crucial to a successful doctor-patient relationship. Through immediate and ongoing patient interaction, our students learn to engage with patients, families and other members of the health care team. Our graduates are able to establish a therapeutic relationship with patients, regardless of age or cultural background, and are able to communicate in an effective manner.

It is important for both medical students and graduates to have an acute sense of professional behavior during interactions with others in clinical, academic, and co-curricular activities. Students master the professional behaviors of respect, compassion and empathy, altruism, honesty, excellence and accountability. In addition, our students are taught the value of moral reasoning and ethical judgment and learn to identify ethical issues in medicine, evaluate ethical choices, and recommend and defend those choices. Our graduates have the ability to recognize individual patient value systems, while integrating moral reasoning and ethical judgment in the care of patients without compromising their own ethical integrity.
The medical knowledge students gain during their four years of medical training allows our graduates to apply both basic and clinical science to understand, explain and solve complex, multi-system problems. Our students receive four years of outstanding clinical education that sets them apart from other medical school graduates, allowing our students greater opportunity to evaluate problems from multiple perspectives and to identify an appropriate and rational solution to address those problems. Additionally, our graduates are able to apply the knowledge, skills and concepts from all scientific perspectives to overall patient care.

By acquiring practice-based learning and improvement skills, including how to access and evaluate medical information, students learn how to provide effective up-to-date patient care. Learning how to use evidence-based medicine and skills related to patient safety and continuing quality improvement furthers students’ development into graduates competent in practice-based learning.

Through systems-based practice, our graduates are able to actively incorporate psychological, social, cultural and economic factors that influence both individual patients and communities. Our graduates have an increased awareness of the role diversity plays in the context of health care, and use this awareness to benefit patients and serve as better health advocates.

Through a variety of teaching and learning strategies, students acquire the attitudes, knowledge and skills required for patient care through time-honored data gathering methods of history-taking and the physical examination, appropriate use and interpretation of tests, identification and in some instances administration of needed procedures, formulation of diagnoses and companion management plans using clinical reasoning and problem-solving skills and provision of patient education. They learn how to care for the full range of patient problems – acute, chronic, emergent, preventative, rehabilitative – in inpatient, outpatient and continuing care settings.

Curriculum

During the first two years of the program, three-fourths of a student’s time is dedicated to the arts and sciences to fulfill baccalaureate degree requirements, while one-fourth is spent in medical school coursework. In the final four years of the program, the majority of the student’s time is spent in medical school coursework with a smaller percentage of time spent completing baccalaureate degree requirements.

Students will select from three baccalaureate degree options: Liberal Arts, Chemistry and Biology. Selection of the baccalaureate degree is dependent upon the number of transferable courses available from high school (AP, IB, dual enrollment, etc.)

<table>
<thead>
<tr>
<th>Code</th>
<th>Year 1 Fall</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>Arts &amp; Sciences:</td>
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<tr>
<td>ANCH I</td>
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<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
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<tr>
<td>CHEM 211</td>
<td>General Chemistry I</td>
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<tr>
<td>&amp; 211L</td>
<td>and Experimental General Chemistry I</td>
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<tr>
<td>LS-ANATO 219</td>
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<td>&amp; 219L</td>
<td>and Functional Anatomy I Laboratory</td>
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<td>Medicine:</td>
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<tr>
<td></td>
<td>Fundamentals of Medical Practice I</td>
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<tr>
<td>MEDICINE 9115</td>
<td>Medical Terminology</td>
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<td>Arts &amp; Sciences:</td>
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<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
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<td>CHEM 212R</td>
<td>General Chemistry II</td>
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<td>&amp; CHEM 212LR</td>
<td>and Experimental General Chemistry II</td>
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<td>LS-MCRB 121</td>
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<td>&amp; 121L</td>
<td>and Human Biology III (Microbiology) Lab</td>
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<td>SOCIOL 101</td>
<td>Sociology: An Introduction</td>
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<td>Cell Biology</td>
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<td>CHEM 320</td>
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<td>&amp; 320L</td>
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<td>Year 2 Fall</td>
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<td>MEDICINE 9221</td>
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<td>BMS 9265</td>
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<td>Math Pathways Course (if needed)</td>
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<td>SOCIOL 211</td>
<td>Social And Psychological Development Through The Life Cycle</td>
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<td>Medicine:</td>
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<tr>
<td>MEDICINE 9210</td>
<td>Fundamentals Of Medical Practice III</td>
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<td>BMS 9296</td>
<td>Human Structure Function I</td>
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<tr>
<td>BMS 9297</td>
<td>Human Structure Function II</td>
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<tr>
<td>BMS 9298</td>
<td>Human Structure Function III</td>
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<td>BMS 9311</td>
<td>Medical Microbiology</td>
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<td>MEDICINE 9312</td>
<td>Pathology I: General Pathology, Genetics, and Immunology</td>
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<td>MEDICINE 9313</td>
<td>Pathology II: Systems-Based Pathology and Pathophysiology</td>
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<td>MEDICINE 9383</td>
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<td>MEDICINE 9385</td>
<td>Introduction to Pharmacology</td>
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<td>MEDICINE 9390</td>
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<td>ANCH III</td>
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<td>DISC 300</td>
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<tr>
<td>Writing Intensive Course (Must be Humanities Prefix)</td>
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<td>Medicine:</td>
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<tr>
<td>MEDICINE 9401</td>
<td>Internal Medicine/Docent Instruction Yr 4</td>
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<td>MEDICINE 9408</td>
<td>Pharmacology</td>
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<td>MEDICINE 9471</td>
<td>Family Medicine</td>
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<tr>
<td>MEDICINE 9472</td>
<td>Behavioral Science in Medicine</td>
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<tr>
<td>MEDICINE 9482</td>
<td>Patient, Physician, Society I</td>
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<tr>
<td>MEDICINE 9483</td>
<td>Continuing Care Clinic</td>
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<tr>
<td>MEDICINE 9484</td>
<td>Patient, Physician, Society II</td>
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<td>MEDICINE 9485</td>
<td>Ambulatory Care Pharmacology</td>
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<td>MEDICINE 9501</td>
<td>Internal Medicine/Docent Instruction Yr 5</td>
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<td>MEDICINE 9503</td>
<td>Pediatrics Rotation</td>
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<tr>
<td>MEDICINE 9505</td>
<td>General Surgery Rotation</td>
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<tr>
<td>MEDICINE 9506</td>
<td>Obstetrics-Gynecology Rotation</td>
</tr>
</tbody>
</table>
Years 1 & 2

- Through the docent team, clinical experience begins immediately in the first year and increases as students advance through the next six years.
- Beginning in Year 1, information learned in the classroom is integrated in the clinical experience. Presentations on various medical symptoms and clinical findings are provided to integrate anatomy and physiology with medical history-taking and provide a format for learning about developing a differential diagnosis based on the patient’s history.
- The Fundamentals of Medicine series (I-IV) builds on communication skills and learning to perform a patient-centered interview. This provides the students an opportunity to learn more about themselves, their profession and further develop effective interviewing skills. The Fundamentals of Medicine series offers a unique theme each semester: women’s health (Fall Year 1), geriatrics (Spring Year 1), pediatrics (Fall Year 2) and adult medicine (Spring Year 2).
- In addition, students meet two to three hours a week with their docent teams to interact with patients, learn the basics of clinical medicine and develop fundamental skills.

Year 3

In Year 3, students join a new docent team, a group of 1 to 15 medical students who will learn together in Years 3 through 6. A docent and other health care professionals will provide supervision and support as students continue to develop medical knowledge and clinical skills.

- Students move from classes primarily on the Volker Campus to the Hospital Hill Campus for intensified basic medical science classes that prepare students for increased clinical responsibilities.
- A Year 3 student is paired with a Year 5 senior partner who serves as a mentor, allowing advanced students to take additional responsibility for the professional development of younger students. This junior-senior partnership allows students to teach each other, as well as build knowledge, skills and camaraderie.
- One half-day a week throughout Years 3 through 6, students assist to diagnose and treat patients in outpatient clinics located at two of our partner hospitals, Truman Medical Center Hospital Hill or Saint Luke’s Hospital. This clinical assignment provides continuity of patient care, as well as a wealth of clinical experience.

Years 4 – 6

In Year 4, students will return to the UMKC Volker campus to complete coursework towards the baccalaureate degree. While completing the undergraduate degree, students continue to participate in clinical assignments.

During the last three years of the program, students have a number of experiences to complete the curriculum.

- Students will be immersed in a one-block rural Missouri preceptorship that provides experiences in societal and health care concerns unique to non-urban primary care settings.
- Two blocks a year, students join their full docent team for daily ward rounds called docent rotation. This docent rotation, block clinical rotations and continuing care clinic make up most of the final three years.
- Clerkships in Emergency Medicine, Family Medicine, Obstetrics/Gynecology, Pediatrics, Psychiatry and Surgery are the required medical school clerkship offerings in the final two years.
* Three to 12 credit hours will come from general degree requirements and/or core major requirements.

**Students may take 6-7 electives in year 6. They must choose three clinical electives from nine designated categories. One of these electives must be a critical care elective.

Student Learning Outcomes

Please click here to review the Student Learning Outcomes (http://med.umkc.edu/docs/catalog/UMKC-SOM-SLO.pdf)

Graduation Requirements

**BACCALAUREATE DEGREE**

- Students must select an undergraduate B.A. major or emphasis area from a variety of disciplines.

- The most common baccalaureate degrees are in liberal arts, biology and chemistry.

- Students may earn up to 30 semester hours of college credit through the Advanced Placement program, International Baccalaureate program or specific subject-area examinations of the College Level Examination Program (CLEP).

- Students must satisfactorily complete a minimum of 90 semester hours of non-medical courses on the UMKC Volker Campus in the following subject areas: English, fine arts, government, history, humanities, literature, natural science, philosophy and social/behavioral science.

- Thirty additional semester hours toward the baccalaureate degree are awarded from required concurrent medical coursework.

- Students enrolled in the combined degree program at UMKC are required to complete a minimum of 38 hours of credit through the College of Arts and Sciences and/or the School of Biological Sciences subsequent to matriculation into the B.A./M.D. program regardless of the amount of previous credit earned.

**DOCTOR OF MEDICINE DEGREE**

- Students in the combined B.A./M.D. program must have satisfactory completion, certified by the UMKC registrar, of requirements for the baccalaureate degree and 38 months of medical curriculum credit.

- Students must achieve Certification in Advanced Cardiac Life Support.

- Students must receive docent certification of clinical competence.

- Student must earn a cumulative GPA of 2.8-4.0.

- Students must earn passing scores on Step 1 and Step 2 CS & CK of the United States Medical Licensing Examination (USMLE).

- Students must complete 48 months of enrollment in the School of Medicine, Years 3-6.

- At least three clinical electives are required and these must come from a minimum of three of the nine School of Medicine approved clinical elective categories. One of these electives must be a critical care elective.

- Students are expected to evaluate the quality of their experiences through course and performance evaluations, an annual program assessment, a graduation questionnaire and a survey of their performance at the end of their first postgraduate year.

Applying for Admission

Please click on listing below to visit the website (http://med.umkc.edu/bamd) for detailed information regarding:

- Applying for Admission (http://med.umkc.edu/bamd/apply)

- Requirements & Eligibility (http://med.umkc.edu/bamd/admission-requirements-eligibility)

- Application Timeline (http://med.umkc.edu/bamd/timeline)

- Council on Selection (http://med.umkc.edu/bamd/council)

- Technical Standards (http://med.umkc.edu/docs/admissions/Technical_Standards.pdf)

- Costs, Scholarships, and Financial Aid. (http://med.umkc.edu/bamd/finance)
Additional Information

Please visit the Program Website (http://med.umkc.edu/bamd) to learn more about this program: http://med.umkc.edu/bamd

UMKC School of Medicine
Office of Admissions, M1-103
2411 Holmes
Kansas City, MO 64108
Phone: 816-235-1870
Fax: 816-235-6579
Email: medicine@umkc.edu
M.D. Program

Program Overview

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Clinical Experience and Physician Interaction

Students join a group of 10 to 12 fellow medical students, called a docent team. Early and continued contact with a team of clinical physicians, known as docents, builds student capacity for clinical judgment. Docent teams include a docent, a clinical pharmacologist, a clinical medical librarian, an Education Team Coordinator and other health care professionals.

Half a day every week for three-and-a-half years, students assist with outpatient care in continuing care clinics at two of our partner hospitals. This clinical assignment provides a continuity of patient care, as well as a wealth of clinical experience, and allows students to work with full-time, hospital-based staff, including physicians, nurses and residents.

Students practice skills through the use of state-of-the-art simulators that replicate the human body and human conditions.

Two months a year for the last three years, students join their full docent team for daily ward rounds called DoRo, or docent rotation.

New students are paired with a senior partner who serves as another mentor, allowing advanced students to take additional responsibility. Peer and self-evaluations are used to augment student education and training.

Research

Students have the opportunity to work with faculty in both clinical and research settings. Students involved in research have the opportunity to present their findings each spring at the annual Student Research Summit, and funding is available to support student research projects. The Office of Research Administration facilitates student research programs as well as coordinates supplemental research lectures and seminars.

Service

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Through a variety of teaching and learning strategies, students acquire the attitudes, knowledge and skills required for patient care through time-honored data gathering methods of history-taking and the physical examination, appropriate use and interpretation of tests, identification and in some instances administration of needed procedures, formulation of diagnoses and companion management plans using clinical reasoning and problem-solving skills and provision of patient education. They learn how to care for the full range of patient problems – acute, chronic, emergent, preventative, rehabilitative – in inpatient, outpatient and continuing care settings.

**Curriculum**

M.D. students enter the medical program and enroll in the Human Structure Function series in January and remain in the program for 52 consecutive blocks. Three distinct curriculum plans have been devised, which allow M.D. students to proceed through the curriculum along one of three possible tracks. Two tracks provide the M.D. students with five blocks of time during which they do not formally enroll. The first track allows M.D. students to elect the five-block leave of absence immediately following completion of USMLE Step 1, and the second track provides for a five-block leave of absence midway through the clinical clerkship sequence. The third track allows M.D. students to complete their 52 blocks of continuous enrollment in December, and does not provide any break during the program other than one block of vacation time per year of enrollment.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 1</strong></td>
<td></td>
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<tr>
<td>BMS 9296</td>
<td>Human Structure Function I</td>
<td>6</td>
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<tr>
<td>BMS 9297</td>
<td>Human Structure Function II</td>
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<tr>
<td>BMS 9298</td>
<td>Human Structure Function III</td>
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<tr>
<td>BMS 9311</td>
<td>Medical Microbiology</td>
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<tr>
<td>MEDICINE 9220</td>
<td>Fundamentals Of Medical Practice IV</td>
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</tr>
<tr>
<td>MEDICINE 9308</td>
<td>Clinical Practice of Medicine I</td>
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<tr>
<td>MEDICINE 9312</td>
<td>Pathology I: General Pathology, Genetics, and Immunology</td>
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<td>MEDICINE 9383</td>
<td>Continuing Care Clinic</td>
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<tr>
<td>MEDICINE 9385</td>
<td>Introduction to Pharmacology</td>
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<tr>
<td>MEDICINE 9390</td>
<td>Clinical Correlations</td>
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<td><strong>Year 2</strong></td>
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<tr>
<td>MEDICINE 9309</td>
<td>Clinical Practice of Medicine II</td>
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<tr>
<td>MEDICINE 9313</td>
<td>Pathology II: Systems-Based Pathology and Pathophysiology</td>
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<td>MEDICINE 9401</td>
<td>Internal Medicine/Docent Instruction Yr 4</td>
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<td>MEDICINE 9408</td>
<td>Pharmacology</td>
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<td>MEDICINE 9471</td>
<td>Family Medicine</td>
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<tr>
<td>MEDICINE 9472</td>
<td>Behavioral Science in Medicine</td>
<td>5</td>
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<tr>
<td>MEDICINE 9482</td>
<td>Patient, Physician, Society I</td>
<td>2</td>
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<td>MEDICINE 9483</td>
<td>Continuing Care Clinic</td>
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<tr>
<td>MEDICINE 9484</td>
<td>Patient, Physician, Society II</td>
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<td>MEDICINE 9485</td>
<td>Ambulatory Care Pharmacology</td>
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<tr>
<td><strong>Year 3</strong></td>
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<td></td>
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<tr>
<td>MEDICINE 9501</td>
<td>Internal Medicine/Docent Instruction Yr 5</td>
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<tr>
<td>MEDICINE 9503</td>
<td>Pediatrics Rotation</td>
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<tr>
<td>MEDICINE 9505</td>
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<td>Obstetrics-Gynecology Rotation</td>
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<td>MEDICINE 9570</td>
<td>Family Medicine Preceptorship</td>
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<tr>
<td>MEDICINE 9571</td>
<td>Psychiatry Rotation</td>
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<tr>
<td>MEDICINE 9585</td>
<td>Prescribing for Special Populations</td>
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<tr>
<td>Medical Humanities/Social Science Elective</td>
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<td><strong>Year 4</strong></td>
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<tr>
<td>MEDICINE 9678</td>
<td>Emergency Medicine</td>
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</tr>
</tbody>
</table>
### Student Learning Outcomes

Please click here to review the Student Learning Outcomes (http://med.umkc.edu/docs/catalog/UMKC-SOM-SLO.pdf)

### Graduation Requirements

Approval of each student’s curriculum plan is contingent on the following expectations:

1. Continuous enrollment in the School of Medicine for 52 blocks (including four blocks vacation).
2. Four vacation blocks (one per 13 block period) during the 52 blocks of enrollment.
3. Successful completion of 34 blocks of UMKC School of Medicine credit for graduation.
4. Participation in Fundamentals of Medicine IV (MED 9220) concurrent with participation in Human Structure Function.
5. Enrollment in all required School of Medicine rotations and courses with students in Years III through VI of the six-year program including the Patient Physician Society Series and Self-Paced Pharmacology Series.
6. All students will be required to complete a one blocks humanities/social sciences course in the last two years. Any alternative must be petitioned.

### Applying for Admission

Please click here to visit the program website (http://med.umkc.edu/md/apply) for information regarding:

- Applying for Admission
- Admission Requirements
- Council on Selection (Admissions Committee)
- Technical Standards
- Costs & Financial Aid

*Please visit the M.D. Program website (http://med.umkc.edu/md) for additional information regarding this program: http://med.umkc.edu/md*

### UMKC School of Medicine

Office of Admissions, M1-103  
2411 Holmes  
Kansas City, MO 64108  
**Phone:** 816-235-1870  
**Fax:** 816-235-6579  
**Website:** med.umkc.edu (http://med.umkc.edu)  
**Email:** medicine@umkc.edu
Graduate Programs

Graduate Degree Programs:
Masters of Science Degrees:
  Master of Science in Anesthesia
  Master of Science in Bioinformatics (p. 1530)
  Master of Medical Science Physician Assistant (p. 1533)
  Master of Health Professions Education (p. 1535)

Graduate Certificate Degrees:
  Graduate Certificate in Clinical Research
  Graduate Certificate in Health Professions Education (p. 1537)

Doctor of Philosophy:
  Interdisciplinary Ph.D. primary and co-discipline: Biomedical and Health Informatics (p. 1538)
Master of Science in Anesthesia Program

Program Description

The Master of Science in Anesthesia program at the UMKC School of Medicine prepares students to become anesthesiologist assistants (AAs). The program mission is to graduate AAs with advanced specialized knowledge and skills and individuals who are compassionate, competent, ethical and patient-centered AAs who work within an Anesthesia Care Team.

Student Learning Outcomes

Students graduating from this program will:

- Demonstrate competency in patient care including preoperative preparation/anesthetic plan, patient monitoring, airway management, patient positioning, and anesthesia record documentation
- Demonstrate competency in integration of basic medical knowledge into clinical practice through application of concepts from foundational coursework in the clinical setting
- Demonstrate competency in clinical management through mastery of skills in multitasking, problem solving, specialty specific management and techniques, responding to changes in patient status, and overall case management
- Demonstrate competency in self-learning and professionalism
- Demonstrate competency in communication with preceptors, operating room staff, other health professionals, and patients

DEGREE REQUIREMENTS

To complete the program students must complete a 7 semester plan of study, which involves 112 credit hours of coursework, and 2000 clinical hours (obtained during Anesthesia Clinical Experience courses). Students must also maintain a 3.0 or better grade point average to earn the Master of Science in Anesthesia degree.

Required Courses Include:

Semester 1 (January to May) (17.5 credit hours)

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<tr>
<td>ANESTH 5505</td>
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<tr>
<td>ANESTH 5518</td>
<td>Professionalism for the Anesthesiologist Asst I</td>
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<tr>
<td>ANESTH 5540</td>
<td>Patient Monitoring and Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>ANESTH 5556</td>
<td>Physiology for Anesthesiologist Assistants I</td>
<td>3</td>
</tr>
<tr>
<td>ANESTH 5560</td>
<td>Introduction to Anesthesia</td>
<td>2</td>
</tr>
<tr>
<td>ANESTH 5561</td>
<td>Orientation to Simulation and Clinical Application</td>
<td>5</td>
</tr>
<tr>
<td>ANESTH 5575</td>
<td>Pharmacology for Anesthesiologist Assistants I</td>
<td>2</td>
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<tr>
<td>MEDPA 5503</td>
<td>Research Applications in Medicine</td>
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Semester 2 (May to August) (12.5 credit hours)

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<tbody>
<tr>
<td>ANESTH 5528</td>
<td>Professionalism for the Anesthesiologist Asst II</td>
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<tr>
<td>ANESTH 5541</td>
<td>Methods of Anesthesia I</td>
<td>2</td>
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<tr>
<td>ANESTH 5557</td>
<td>Physiology for Anesthesiologist Assistants II</td>
<td>2</td>
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<tr>
<td>ANESTH 5558</td>
<td>Anesthesia &amp; Co-existing Disease I</td>
<td>2</td>
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<tr>
<td>ANESTH 5563</td>
<td>Anesthesia Clinical Experience I</td>
<td>4</td>
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<tr>
<td>ANESTH 5585</td>
<td>Physiological Model-based Simulation I</td>
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Semester 3 (August to December) (18.5 credit hours)

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<thead>
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<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>ANESTH 5506</td>
<td>Anatomy for Anesthesiologist Assistants II</td>
<td>1</td>
</tr>
<tr>
<td>ANESTH 5538</td>
<td>Professionalism for the Anesthesiologist Asst III</td>
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<tr>
<td>ANESTH 5559</td>
<td>Anesthesia &amp; Co-existing Disease II</td>
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</tr>
<tr>
<td>ANESTH 5565</td>
<td>Anesthesia Clinical Experience II</td>
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<tr>
<td>ANESTH 5576</td>
<td>Pharmacology for Anesthesiologist Assistants II</td>
<td>2</td>
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<tr>
<td>ANESTH 5577</td>
<td>Methods of Anesthesia II</td>
<td>3</td>
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</table>
ANESTH 5586  Physiological Model-based Simulation II  2

Semester 4 (January to May) (17 credit hours)

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<tr>
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<tr>
<td>ANESTH 5564</td>
<td>Anesthesia Clinical Correlation II</td>
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<tr>
<td>ANESTH 5567</td>
<td>Anesthesia Clinical Experience III</td>
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Semester 5 (May to August) (13 credit hours)

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<tbody>
<tr>
<td>ANESTH 5568</td>
<td>Anesthesia Clinical Correlation III</td>
<td>1</td>
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<tr>
<td>ANESTH 5569</td>
<td>Anesthesia Clinical Experience IV</td>
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</table>

Semester 6 (August to December) (17 credit hours)

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<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ANESTH 5570</td>
<td>Anesthesia Clinical Correlation IV</td>
<td>1</td>
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<tr>
<td>ANESTH 5571</td>
<td>Anesthesia Clinical Experience V</td>
<td>16</td>
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</table>

Semester 7 (January to May) (16.5 credit hours)

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<th>Credits</th>
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<tr>
<td>ANESTH 5573</td>
<td>Anesthesia Clinical Experience VI</td>
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<tr>
<td>ANESTH 5548</td>
<td>Anesthesiologist Assistant Senior Seminar</td>
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</table>
Master of Science Program in Bioinformatics

Program Description

The Department of Biomedical and Health Informatics at the School of Medicine, in cooperation with the School of Biological Sciences and the School of Computing and Engineering, offers the Master of Science in Bioinformatics degree. Students may complete the degree without an area of emphasis or may choose one of three emphasis areas (Clinical Research, Computational Bioinformatics, or Genomic Bioinformatics).

The program is designed to prepare a new generation of informatics professionals who will have the necessary skills to work collaboratively for the advancement of health sciences. Graduates are expected to be effective team members who can contribute to education, research, and development in the fields of bioinformatics and/or clinical research. This degree program prepares students to assume a variety of professional informatics positions in translational research and development, institutional management, public policy, information systems, hospitals, private industry, or as members of a clinical research team. Students completing the M.S. Bioinformatics degree may also choose to continue their education at advanced graduate levels.

Program Goals

1. Produce competent researchers at the interface of biomedical and health informatics and clinical research
2. Produce graduates able to establish partnerships with stakeholders and the community
3. Produce effective communicators
4. Produce ethical and responsible researchers

Student Learning Outcomes

Students graduating from this program will:

• Have the ability to perform statistical analysis.
• Have the ability to generate a research hypothesis.
• Have the ability to propose, conduct, and report research.
• Have the ability to apply knowledge and skills in biomedical informatics.
• Have the ability to communicate scientific information.

Degree Requirements

A minimum of 36 credit hours are required to earn the Master of Science in Bioinformatics degree. Students must complete the program of study while maintaining a 3.0 or better grade point average to earn the MSB. The total number of credit hours, required coursework, elective course work and Thesis or Capstone requirements vary based on the MS Bioinformatics option selected by the student. These options are shown in the following table:

<table>
<thead>
<tr>
<th>MSB without an Emphasis</th>
<th>Computational Emphasis</th>
<th>Clinical Research Emphasis</th>
<th>Genomics Emphasis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required course hours</td>
<td>18</td>
<td>24</td>
<td>24</td>
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<tr>
<td>Elective course hours*</td>
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<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Research &amp; Thesis hours</td>
<td>6</td>
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<td>6</td>
</tr>
<tr>
<td>Capstone option available*</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Minimum Total hours</td>
<td>36</td>
<td>36</td>
<td>36</td>
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</table>

*Students may choose to complete the 3 credit hour Capstone course and 3 additional elective credit hours in place of Research and Thesis credit hours. This option is not available for the Genomics Bioinformatics emphasis.

MSB Emphasis Options

1. The M.S. in Bioinformatics (without an emphasis area): Gives students flexibility to complete a bioinformatics curriculum that best meets their academic and career goals.

2. Clinical Research: Emphasizes the creation and understanding of data generated by patient care and clinical studies and on the statistical methodology needed for clinical research and improved bedside care.

3. Computational Bioinformatics: Emphasizes the development and use of the next generation of bioinformatics tools and software.

The required coursework for each M.S. Bioinformatics option are listed below. Information about elective coursework can be obtained from program faculty. Please visit our Department Website (http://med.umkc.edu/msb) to learn more about this program.

### M.S. Bioinformatics without emphasis area

<table>
<thead>
<tr>
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<tr>
<td>MEDB 5501</td>
<td>Biostatistics I</td>
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</tr>
<tr>
<td>MEDB 5502</td>
<td>Biostatistics II</td>
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<tr>
<td>MEDB 5510</td>
<td>Clinical Research Methodology</td>
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<tr>
<td>MEDB 5561</td>
<td>Responsible Conduct of Research</td>
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At least 2 from the following:

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<tbody>
<tr>
<td>MEDB 5520</td>
<td>Intro-Medical Informatics</td>
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<tr>
<td>or MEDB 5521</td>
<td>Clinical Bioinformatics</td>
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<tr>
<td>or BIOLOGY 5525</td>
<td>Bioinformatics and Data Analysis</td>
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<tr>
<td>or COMP-SCI 5566</td>
<td>Introduction to Bioinformatics</td>
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### Clinical Research Emphasis

<table>
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<tbody>
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</tr>
<tr>
<td>MEDB 5502</td>
<td>Biostatistics II</td>
<td>3</td>
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<tr>
<td>MEDB 5510</td>
<td>Clinical Research Methodology</td>
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</tr>
<tr>
<td>MEDB 5511</td>
<td>Principles and Applications of Epidemiology</td>
<td>3</td>
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<tr>
<td>MEDB 5512</td>
<td>Clinical Trials</td>
<td>3</td>
</tr>
<tr>
<td>MEDB 5513</td>
<td>Overview of Health Services Research</td>
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</tr>
<tr>
<td>MEDB 5520</td>
<td>Intro-Medical Informatics</td>
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<td>MEDB 5561</td>
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### Computational Emphasis

<table>
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<tr>
<td>MEDB 5502</td>
<td>Biostatistics II</td>
<td>3</td>
</tr>
<tr>
<td>MEDB 5510</td>
<td>Clinical Research Methodology</td>
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</tr>
<tr>
<td>MEDB 5520</td>
<td>Intro-Medical Informatics</td>
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</tr>
<tr>
<td>MEDB 5561</td>
<td>Responsible Conduct of Research</td>
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<tr>
<td>COMP-SCI 470</td>
<td>Introduction to Database Management Systems (or)</td>
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<tr>
<td>or COMP-SCI 371</td>
<td>Database Design, Implementation and Validation</td>
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<tr>
<td>COMP-SCI 5565</td>
<td>Introduction to Statistical Learning</td>
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<td>Introduction to Bioinformatics</td>
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### Genomic Emphasis

<table>
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<th>Title</th>
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<tbody>
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<td>MEDB 5501</td>
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<td>3</td>
</tr>
<tr>
<td>MEDB 5502</td>
<td>Biostatistics II</td>
<td>3</td>
</tr>
<tr>
<td>MEDB 5510</td>
<td>Clinical Research Methodology</td>
<td>3</td>
</tr>
<tr>
<td>MEDB 5561</td>
<td>Responsible Conduct of Research</td>
<td>3</td>
</tr>
<tr>
<td>LS-CBB 5530</td>
<td>Cell and Molecular Biology I</td>
<td>3</td>
</tr>
<tr>
<td>LS-CBB 5520</td>
<td>Cell and Molecular Biology II</td>
<td>3</td>
</tr>
<tr>
<td>LS-MBB 5561</td>
<td>General Biochemistry I</td>
<td>3</td>
</tr>
<tr>
<td>LS-MBB 5562</td>
<td>General Biochemistry II</td>
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<tr>
<td>BIOLOGY 5519</td>
<td>Principles of Evolution</td>
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</tr>
<tr>
<td>BIOLOGY 5525</td>
<td>Bioinformatics and Data Analysis</td>
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<tr>
<td>COMP-SCI 470</td>
<td>Introduction to Database Management Systems (or)</td>
<td>3</td>
</tr>
<tr>
<td>or COMP-SCI 371</td>
<td>Database Design, Implementation and Validation</td>
<td></td>
</tr>
</tbody>
</table>
Please visit our Admissions pages (http://med.umkc.edu/msb) to learn about our requirements.
Master of Medical Science Physician Assistant

PROGRAM DESCRIPTION

The Master of Medical Science Physician Assistant degree is offered by the School of Medicine. The mission of the program is to educate competent, compassionate, and culturally-aware Physician Assistants who are prepared to meet the healthcare needs of our community. Graduates will advance the Physician Assistant profession through clinical excellence, service, and dedication to lifelong learning.

Student Learning Outcomes

Students graduating from this program will:

- Demonstrate competency in interpersonal and communication skills
- Demonstrate competency in medical Knowledge
- Demonstrate competency in professionalism
- Demonstrate competency in practice-based learning and improvement
- Demonstrate competency in systems-based practice
- Demonstrate competency in interprofessional collaborative practice
- Demonstrate competency in social, cultural, and community contexts of health care
- Demonstrate competency in patient care

DEGREE REQUIREMENTS

To complete the program graduate students must complete a 7-semester program of study. Within the program of study, successful students earn 130.5 credit hours, which includes 48 credit hours (12 months) comprised of clinical rotation experiences. Students must pass a Promotion exam during semester 4 and a Summative exam during semester 7. Students must also maintain a 3.0 or better grade point average to receive the Master of Medical Science Physician Assistant degree.

Required Courses Include:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>Year 1 Spring Semester (22 credit hours)</strong></td>
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<tr>
<td>MEDPA 5501</td>
<td>Anatomy for the Physician Assistant</td>
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<tr>
<td>MEDPA 5502</td>
<td>Foundations in Basic Medical Science</td>
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<td>MEDPA 5503</td>
<td>Research Applications in Medicine</td>
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<td>MEDPA 5504</td>
<td>Ethics, Law and Policy</td>
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<td>MEDPA 5505</td>
<td>Clinical Assessment for the PA</td>
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<td>MEDPA 5511</td>
<td>Clinical Practicum I</td>
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<td>MEDPA 5521</td>
<td>PA Professions I</td>
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<tr>
<td>MEDPA 5531</td>
<td>Science and Practice of Medicine I</td>
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<tr>
<td><strong>Year 1 Summer Semester (14 credit hours)</strong></td>
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<tr>
<td>MEDPA 5512</td>
<td>Clinical Practicum II</td>
<td>1</td>
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<tr>
<td>MEDPA 5522</td>
<td>PA Professions II</td>
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<tr>
<td>MEDPA 5532</td>
<td>Science and Practice of Medicine II</td>
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<td><strong>Year 1 Fall Semester (22 credit hours)</strong></td>
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<td>MEDPA 5513</td>
<td>Clinical Practicum III</td>
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<tr>
<td>MEDPA 5523</td>
<td>PA Professions III</td>
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<tr>
<td>MEDPA 5533</td>
<td>Science and Practice of Medicine III</td>
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<td><strong>Year 2 Spring Semester (25 credit hours)</strong></td>
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<tr>
<td>MEDPA 5514</td>
<td>Clinical Practicum IV</td>
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<td>MEDPA 5524</td>
<td>PA Professions IV</td>
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<td>MEDPA 5534</td>
<td>Science and Practice of Medicine IV</td>
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### Year 2 Summer Semester (12.5 credit hours)

<table>
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<tr>
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<tr>
<td>MEDPA 5600</td>
<td>Clinical Rotation - May</td>
<td>4</td>
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<tr>
<td>MEDPA 5600</td>
<td>Clinical Rotation - June</td>
<td>4</td>
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<tr>
<td>MEDPA 5600</td>
<td>Clinical Rotation - July</td>
<td>4</td>
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<td>MEDPA 5600</td>
<td>Clinical Rotation - August</td>
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<td>MEDPA 5581</td>
<td>Professional Development for the PA</td>
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### Year 2 Fall Semester (16.5 credit hours)

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>MEDPA 5600</td>
<td>Clinical Rotation - September</td>
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<td>MEDPA 5600</td>
<td>Clinical Rotation - October</td>
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<tr>
<td>MEDPA 5600</td>
<td>Clinical Rotation - November</td>
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<tr>
<td>MEDPA 5600</td>
<td>Clinical Rotation - December</td>
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<tr>
<td>MEDPA 5581</td>
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### Year 3 Spring Semester (18.5 credit hours)

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<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>MEDPA 5600</td>
<td>Clinical Rotation - January</td>
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<tr>
<td>MEDPA 5600</td>
<td>Clinical Rotation - February</td>
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<tr>
<td>MEDPA 5600</td>
<td>Clinical Rotation - March</td>
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<td>MEDPA 5600</td>
<td>Clinical Rotation - April</td>
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<tr>
<td>MEDPA 5580</td>
<td>Senior Seminar</td>
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<td>MEDPA 5581</td>
<td>Professional Development for the PA</td>
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<tr>
<td>MEDPA 5595</td>
<td>Capstone</td>
<td>1</td>
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</table>

**Total program hours 130.5**

MEDPA 5600s are a series of required and elective clinical rotations. Required clinical rotations include Family Medicine, Adult Internal Medicine, Women’s Health, Emergency Medicine, Pediatrics, General Surgery, Behavioral Medicine, and Geriatrics. Student schedules are supplemented with additional 2 to 4 week elective rotations.
Master of Health Professions Education

Program Overview

The Masters Degree in Health Professions Education (MHPE) provides an educational research foundation for teaching, assessment and leadership in health professions education. The MHPE curriculum is comprised of twelve courses which focus on the application of learning principles to educational practice. All courses emphasize an applied project based on students' professional experiences. The educational portfolio serves as an integrative tool across courses and as a showcase for student accomplishments.

Program Features

• Inter-professional—For all health education professionals
• Educational research foundation—Evidence-based decision making
• Application—Based on solving real instructional problems in health professions education
• Professional Portfolio—Documents learning goals and accomplishments
• Online and Blended—Most coursework is online with occasional in-class meeting

Student Learning Outcomes

Students graduating from this program will:

• Have the ability to understand and apply educational research in health professions education.
• Have the ability to design evidence-based educational programs and materials.
• Have the ability to deliver effective, theory-based instruction in large, small and clinical group settings.
• Have the ability to effectively use assessment tools to reflect student progress in learning.
• Have the ability to evaluate the effectiveness of programs, curricula and instructional events.
• Have the ability to develop cultural awareness and commitment to diversity.
• Have the ability to provide reflective and evidence-based leadership.

Degree Requirements

A minimum of 36 credit hours are required to earn the Master of Health Professions Education degree. Students must complete the program of study while maintaining a 3.0 or better grade point average.

<table>
<thead>
<tr>
<th>Code</th>
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<tr>
<td>MEDB 5501</td>
<td>Applied Biostatistics I</td>
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<td>HPRE 5500</td>
<td>Leadership and Administration in Health Professions Education</td>
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<tr>
<td>HPRE 5508</td>
<td>Principles and Methods of Research</td>
<td>3</td>
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<tr>
<td>HPRE 5522</td>
<td>Curriculum Design in Health Professions Education</td>
<td>3</td>
</tr>
<tr>
<td>HPRE 5530</td>
<td>Current Issues in Health Professions Education</td>
<td>3</td>
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<tr>
<td>HPRE 5535</td>
<td>Community Engagement in Education</td>
<td>3</td>
</tr>
<tr>
<td>HPRE 5540</td>
<td>Independent Study</td>
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<tr>
<td>HPRE 5550</td>
<td>Assessment in Health Professions Education</td>
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<tr>
<td>HPRE 5560</td>
<td>Teaching in Health Professions Education</td>
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<tr>
<td>HPRE 5566</td>
<td>Teaching about Culture and Health</td>
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<tr>
<td>HPRE 5580</td>
<td>Program Evaluation in Health Professions Education</td>
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</tr>
<tr>
<td>HPRE 5588</td>
<td>Learning Portfolio in Health Professions Education</td>
<td>3</td>
</tr>
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</table>

Total Credits 36
Graduate Certificate in Clinical Research

Program Description
The Department of Biomedical and Health Informatics (DBHI) at the School of Medicine (SOM) offers a Graduate Certificate in Clinical Research. The Graduate Certificate is a valuable credential for health care professionals who want exposure to the fundamentals of clinical research methods and applications. Junior faculty, clinical fellows, physicians, nurses, pharmacists, dentists, clinical research coordinators, and other health professionals will advance their research careers and become more discriminate consumers of research upon completion of this program.

Please visit our Department Website (http://med.umkc.edu/dbhi) to learn more about this program.

Student Learning Outcomes
Students graduating from this program will:

- Have the ability to perform statistical analysis
- Have the ability to generate a research hypothesis
- Have the ability to propose, conduct, and report research

Curriculum Description
Students must complete the following courses while maintaining a 3.0 or better grade point average to earn the Graduate Certificate:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEDB 5501</td>
<td>Biostatistics I</td>
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<tr>
<td>MEDB 5510</td>
<td>Clinical Research Methodology</td>
<td>3</td>
</tr>
<tr>
<td>MEDB 5511</td>
<td>Principles and Applications of Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>MEDB 5512</td>
<td>Clinical Trials</td>
<td>3</td>
</tr>
<tr>
<td>MEDB 5513</td>
<td>Overview of Health Services Research</td>
<td>3</td>
</tr>
</tbody>
</table>

Since the Graduate Certificate includes coursework that counts toward the Master of Science in Bioinformatics (MSB) Degree, Graduate Certificate graduates will be offered the option of applying to the MSB program. If accepted, they will be able to apply 15 credit hours towards completion of the MSB degree or the MSB with an emphasis in Clinical Research.

Admission Requirements
Please visit our Admissions Page (http://med.umkc.edu/gc-clinical-research) to learn about our requirements.
Graduate Certificate in Health Professions Education

Program Overview
The Graduate Certificate in Health Professions Education provides an educational research foundation for teaching and assessment in health professions education. The certificate, which includes six courses (18 credit hours), is based on a mix of both classroom and online instruction.

Student Learning Outcomes
Students graduating from this program will:

• Have the ability to deliver effective, theory-based instruction in large group, small group, and clinical settings
• Have the ability to develop skill in educational research as it relates to the quality of instructional practice
• Have the ability to design evidence-based educational programs and materials with appropriate scope, sequence, and focus for learners
• Have the ability to understand assessment and to effectively use assessment tools to track student progress and to promote student learning
• Have the ability to develop skill in program and curriculum development and evaluation in health professions education
• Have the ability to identify current issues in health professions education and develop skill in monitoring changes in the field

Plan of Study

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPRE 5530</td>
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<td>HPRE 5550</td>
<td>Assessment in Health Professions Education</td>
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<tr>
<td>HPRE 5508</td>
<td>Principles and Methods of Research</td>
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</tr>
<tr>
<td>HPRE 5560</td>
<td>Teaching in Health Professions Education</td>
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<tr>
<td>HPRE 5522</td>
<td>Curriculum Design in Health Professions Education</td>
<td>3</td>
</tr>
<tr>
<td>HPRE 5580</td>
<td>Program Evaluation in Health Professions Education</td>
<td>3</td>
</tr>
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</table>

Please visit the Program Website (http://med.umkc.edu/gchpe) to learn more about this program:

• Curriculum & Calendar (http://med.umkc.edu/gchpe/curriculum)
• Applying for Admission (http://med.umkc.edu/gchpe)
• Contact Us (http://med.umkc.edu/gchpe)
Doctor of Philosophy

Degree Requirements

The Department of Biomedical and Health Informatics participates in the Interdisciplinary Ph.D. program at UMKC. Students interested in studies at the doctoral level in Biomedical and Health Informatics, should apply to the Interdisciplinary Ph.D. program in the School of Graduate Studies.

Detailed information on the general and discipline-specific admission requirements for the Interdisciplinary Ph.D. is found in the School of Graduate Studies (http://catalog.umkc.edu/colleges-schools/graduate-studies) section of this catalog, with specific details in the Biomedical and Health Informatics (p. 1242) discipline section. More information about the program can be found on the school’s Website at http://sgs.umkc.edu/interdisciplinary-ph-d-studies-at-umkc/.
Conservatory of Music and Dance

James C. Olson Performing Arts Center (http://www.umkc.edu/virtualtour/performing-arts.asp)
4949 Cherry Street
(816) 235-2900
conservatory@umkc.edu
http://conservatory.umkc.edu/

Mailing Address
University of Missouri-Kansas City
Conservatory of Music and Dance
4949 Cherry Street
Kansas City, MO 64110-2229

Dean:
Diane Helfers Petrella

Associate Dean for Graduate Studies:
Andrew Granade

Associate Dean for Enrollment Management and Performance/Operations:
James Snell

Accreditation
UMKC is an accredited institutional member of the National Association of Schools of Music (1933), the National Association of Schools of Dance (2008), the Council for the Accreditation of Educator Preparation (1961), and the North Central Association of Colleges and Schools.

Scholarships
Scholarships or Special Awards

Scholarships are available to Conservatory students and are awarded on the basis of ability (demonstrated at the audition) and academic standing. Scholarships are awarded for one year but can be renewed annually, provided students maintain the appropriate grade level, continue satisfactory performance in the major performance area, and participate in major ensembles as prescribed.

Applicants for Conservatory scholarships must complete all regular admissions procedures in order to be considered.

In accordance with the code of ethics of the National Association of Schools of Music, the acceptance of financial aid by a candidate is considered a declaration of intent to attend the institution, and each candidate will be so informed. The code further declares that such a student may not consider any other offer from an institutional member of the NASM except with the written consent of the music executive of the first institution. Similarly, a transfer applicant cannot be considered for financial aid without the written recommendation of the head of the music department from which the transfer is being made.

Faculty

Conservatory of Music and Dance

* Members of UMKC Graduate Faculty # Members of UMKC Doctoral Faculty + Located at UM-St. Louis campus

Gary Bernard Abbott; assistant professor of dance (modern).

*Marita A. Abner; assistant teaching professor (bassoon); M.M. (Yale University); B.A. (Swarthmore College).

*Matthew Bell, associate teaching professor of music (music theory); Ph.D. (University of Texas - Austin); M.M. (Florida State University); B.M. (Florida State University).

#*Keith Benjamin; curators’ distinguished professor of music (trumpet); D.M.A. (Eastman School of Music); M.M. (University of Northern Iowa); B.M.E. (Morningside College).

#*Robert Bode; Raymond R. Neevel/Missouri Professor of Choral Music and Director of Choral Activities (choral conducting); D.M.A. (University of Cincinnati College-Conservatory of Music); M.M. (University of Texas - Austin); B.A. (University of Texas - Austin).

#*Jane M. Card; professor of music (clarinet); D.M.A. (University of Michigan); M.M. (University of Michigan); B.M. (University of Michigan).

#*Chen Yi; Lorena Searcy Cravens/Millsap/Missouri Distinguished Professor of Music (composition); D.M.A. (Columbia University); M.A. (Central Conservatory of Music, Beijing); B.A. (Central Conservatory of Music, Beijing).
#*JoDee Davis; associate professor of music (trombone); D.M. (Indiana University); M.M. (University of Northern Iowa); B.M. (University of Northern Iowa).

#*Steven D. Davis; Rose Ann Carr Millsap Missouri Distinguished Professor of Music (conducting, wind symphony); M.M. (University of Minnesota); B.M.E. (Florida State University).

#*Alison DeSimone; assistant professor of music (musicology); Ph.D. (University of Michigan); B.A. (Vassar College).

*Beth Loebel Elswick; associate teaching professor of music (music theory); D.M.A. (University of Missouri - Kansas City); M.S.Ed. (Missouri State University); B.M., B.S. (University of Arizona; Missouri State University).

#*William A. Everett; curators’ distinguished professor of music (musicology); Ph.D. (University of Kansas); M.M. (Southern Methodist University); B.M., summa cum laude (Texas Tech University).

#*Raymond Scott Feener; associate professor of music (voice); D.M.A. (Florida State University); M.M. (Ohio University); B.M. (Ohio University).

*Hali Fieldman; associate professor of music (music theory); Ph.D. (University of Michigan); M.M. (Eastman School of Music); B.M. (Peabody Institute).

*Joseph Genuardi; professor of music (violin); Artist Diploma (The Curtis Institute).

#*Andrew Granade; professor of music (musicology); Ph.D. (University of Illinois); M.M. (University of Illinois); B.M. (Ouachita Baptist University).

*Marta Gray; assistant teaching professor of music (piano, piano pedagogy); Ph.D. (University of Oklahoma); M.M. (University of Oklahoma); B.M. (Seattle Pacific University).

#*Robert Groene II; associate professor of music (music therapy); Ph.D. (University of Minnesota); M.A. (University of Minnesota); B.S. & B.S. (University of Minnesota).

*Martin Hackleman; associate teaching professor of music (horn).

*Lani Hamilton; assistant professor of music (music education); Ph.D. (University of Texas - Austin); M.M. (University of Texas - Austin); B.M. (University of Miami)

Dee Anna Hiett; associate professor of dance (modern).

Patricia M. Higdon; associate teaching professor of music (collaborative pianist); M.M. (Cleveland Institute of Music); B.M. (Houghton College).

#*Celeste Johnson; associate professor of music (oboe); M.M. (Eastman School of Music); B.M. (University of Illinois).

David Justin; associate professor of dance (ballet); M.A. (University of Birmingham, U.K.); Certificate (Royal Academy of Dramatic Arts, London).

#*Maria Kanyova; associate professor of music (voice); D.M.A. (University of Kansas); M.M. (University of Kansas); B.M.E. (UMKC Conservatory of Music and Dance).

#*Benny Kim; associate professor of music (violin); M.M. (The Juilliard School); B.M. (The Juilliard School).

*Henry Kramer; assistant teaching professor (piano); M.M. (Yale University); M.M. (The Juilliard School); B.M. (The Juilliard School).

*Fenlon Mowrey Lamb; assistant teaching professor of music (opera); M.M. (Peabody Conservatory); B.A. (University of California - Santa Cruz).

#*Scott Lee; associate professor of music (viola); M.M. (Mannes College of Music); B.M. (The Juilliard School)

Kenneth Lidge; associate teaching professor of music (music theory); D.M.A. (University of Missouri - Kansas City); M.M. (University of Illinois-Champaign); B.M.E. (University of Wisconsin-Eau Claire).

*Michael Mermagen; associate professor of music (cello); M.M. (The Juilliard School); B.M. (Peabody Conservatory).

#*Dale W. Morehouse; associate professor of music (voice, opera); M.M. (SUNY-Binghamton); B.A. (University of Central Florida).

#*Joseph Parisi; professor of music (music education, instrumental music); Ph.D. (Florida State University); M.M. (Florida State University); B.M. (State University College of New York at Potsdam).

#*Diane Helfers Petrella; professor of music (piano, piano pedagogy); D.M.A. (University of North Texas); M.M. (University of Wisconsin-Madison); B.M. (Eastern Illinois University).

*Mary Posses; associate professor of music (flute); D.M.A. (Yale University); M.M., M.M.A. (Yale University); B.A. (Yale University).
*Natalia Rivera; assistant teaching professor of music (vocal coach-accompanist, foreign language for singing); D.M.A. (University of Kansas); M.M. (University of Minnesota); B.M. (New England Conservatory).

*Amy Robertson; assistant professor of music (music therapy); Ph.D. (Florida State University); M.M.T. (Florida State University); B.M.(Oklahoma City University).

#*Charles R. Robinson; professor of music (music education, choral music); Ph.D. (Florida State University); M.A. (California State University, Long Beach); B.M.E. (Florida State University).

#*Paul Rudy; curators’ distinguished professor of music (composition); D.M.A. (University of Texas at Austin); M.M. (University of Colorado, Boulder); B.A. (Bethel College).

*Zachary Shemon; assistant professor of music (saxophone); M.M. (University of Illinois).  

*Reynold Simpson; associate professor of music (music theory); D.M.A. (The Juilliard School); M.F.A. (Princeton University); B.M. (Peabody Conservatory).

#*James Snell; associate professor of music (percussion); D.M.A. (University of Missouri - Kansas City); M.M. (Southern Methodist University); B.M. (University of Illinois).

*Aidan Soder; associate professor of music (voice); D.M.A. (Rice University); M.M. (Rice University); B.M. (University of Nebraska at Omaha).

#*Thomas Stein; associate professor of music (tuba, euphonium); M.M. (University of Michigan); B.M. (University of Michigan).

*Dan Thomas; assistant professor of music (jazz saxophone); M.M.A. (University of Missouri - Kansas City); B.A. (University of Maryland); B.E. (University of Maryland).

#*David Thurmaier; associate professor of music (music theory); Ph.D. (Indiana University); M.A. (Eastman School of Music); B.M. (University of Illinois-Champaign).

Ronald G. Tice; associate professor of dance (ballet); B.F.A. (University of Minnesota).

#*Sarah Tyrrell; associate teaching professor of music (musicology); Ph.D. (University of Kansas); M.M. (New England Conservatory); B.M. (Kansas State University).

*Robert Watson, Jr.; William and Mary Grant/Missouri Endowed Professor in Jazz Studies (jazz saxophone); B.M. (University of Miami).

Paula B. Weber; professor of dance (ballet); M.F.A. (Smith College); B.A. (Butler University).

*Richard Williams; assistant professor of music (vocal coach-accompanist, foreign language for singing); M.M. (University of Illinois); B.M. (University of Akron); B.A. (University of Akron).

#*Zhou Long; distinguished professor of music (composition); D.M.A. (Columbia University); B.A. (Central Conservatory of Music, Beijing, China).

Emeritus Faculty

Olga Ackerly; associate professor emeritus of music (musicology); Ph.D. (University of Kansas); M.Ph., M.A.; M.M. (Manhattan School of Music); B.M. (Manhattan School of Music).

Inci Bashar; professor emeritus of music (voice); L.L.B (University of Istanbul); (Istanbul's Civic Conservatory of Music); (Hochschule fur musick, Munich); (Ankara State Opera Studio); (Former member of the Cologne, Dortnund and Istanbul state operas).

Shirley Bean; associate professor emeritus of music (music theory); D.M.A. (University of Missouri - Kansas City) M.M. (University of Missouri - Kansas City); B.M.E. (University of Missouri - Kansas City).

Hugh Brown; associate professor emeritus of music (viola).

Nancy Cochran; professor emeritus of music (horn); M.M. (Ball State University); B.M. (University of Wisconsin-Madison).

John Ditto; professor emeritus of music (organ); D.M.A. (Eastman School of Music); M.M. (University of Michigan); B.M. (Drake University).

Eph Ehly; professor emeritus of music (choral music, choral conducting); D.M.A. (University of Colorado); M.A. (George Peabody College for Teachers); B.A. (Kearney State College).

Gustavo R. Halley; associate professor emeritus of music (voice); D.M. (Florida State University).

Alexander W. Hamilton; associate professor emeritus of music (music education); Ph.D. (University of Texas at Austin); M.Ed. (University of Arkansas); B.S.E (University of Arkansas).
Linda Ross Happy; associate professor emeritus of music (class piano); D.M.A. (University of Colorado); M.M. (Northwestern University); B.M.E. (University of Nebraska).

Mary Pat Henry; professor emeritus of dance (ballet); M.F.A. (Florida State University); B.F.A. (University of Utah).

Tiberius Klausner; professor emeritus of music (violin); Diploma (National Academy of Music, Budapest); Premiere Prix (Conservatoire National de Musique, Paris); Diploma (The Juilliard School).

Wanda Lathom-Radocy; professor emeritus of music (music therapy); Ph.D. (University of Kansas); M.M.E. (University of Kansas); B.M.E. (The University of Kansas).

John R. Leisenring; professor emeritus of music (trombone/jazz studies); D.M.A. (University of Illinois); M.M. (University of Wisconsin-Eau Claire); B.M. (University of Wisconsin-Eau Claire).

Ruth Anne Rich; professor emeritus of music (piano); D.M.A. (Eastman School of Music); M.M. (Peabody Conservatory of Music); B.M. (Florida State University; Diplome de Virtuosite (Schola Cantorum, Paris); License d’Enseignement (L’Ecole Normale de Musique, Paris); Licentiateship in Piano Performance (Royal Academy of Music, London).

Merton Shatzkin; professor emeritus of music (music theory); Ph.D. (Eastman School of Music); M.M. (Eastman School of Music); Diploma (The Juilliard School).

Joan Sommers; professor emeritus of music (accordion); Associate Diploma and Licentiate Diploma (Accordion Institute of America in conjunction with the British College of Accordionists)

Timothy Timmons; associate professor emeritus of music (saxophone); M.M. (Northwestern University); B.M. (University of Tulsa).

Undergraduate
The Conservatory of Music and Dance offers the bachelor of fine arts in dance, bachelor of arts, bachelor of music and bachelor of music education degrees. The specific degrees and their requirements are listed on the following pages.

Bachelor of Arts in Music (p. 1588)
Bachelor of Arts in Music (Therapy Emphasis) (p. 1591)
Bachelor of Music (Core Requirements) (p. 1599)
Bachelor of Music in Jazz Studies (p. 1600)
Bachelor of Music in Music Composition (p. 1603)
Bachelor of Music in Music Theory (p. 1606)
Bachelor of Music in Performance (p. 1609)
  • Guitar Emphasis Area (p. 1610)
  • Organ Emphasis Area (p. 1613)
  • Piano Emphasis Area (p. 1616)
  • Voice Emphasis Area (p. 1619)
  • Wind, Strings and Percussion Emphasis Area (p. 1622)
Bachelor of Music Education (p. 1625)
  • Choral Emphasis Area (p. 1627)
  • Instrumental Emphasis Area (p. 1631)
Bachelor of Fine Arts in Dance (p. 1595)

Graduate
Doctor of Musical Arts (p. 1639)
  • Artist’s Certificate (p. 1642)
  • Doctor of Musical Arts in Conducting (p. 1643)
  • Doctor of Musical Arts in Music Composition (p. 1646)
  • Doctor of Musical Arts in Performance (p. 1647)
Interdisciplinary Ph.D. study in Music Education (p. 1649)

Master's Degrees (p. 1650)
- Master of Arts in Music (p. 1651)
- Master of Arts in Music: Music Therapy Emphasis (p. 1652)
- Master of Music Education (p. 1653)
- Master of Music in Conducting (p. 1654)
- Master of Music in Music Composition (p. 1656)
- Master of Music in Music Theory (p. 1657)
- Master of Music in Musicology (p. 1658)
- Master of Music in Performance: Keyboard Emphasis (p. 1659)
- Master of Music in Performance: Orchestral Instruments and Guitar Emphasis Areas (p. 1660)
- Master of Music in Performance: Voice Emphasis (p. 1661)
- Master of Music in Performance: Woodwind Emphasis (p. 1663)
- Performer's Certificate (p. 1664)

**Bassoon Courses**

BASSOON 100A Preparatory Applied Study Credits: 2
One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

BASSOON 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

BASSOON 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

BASSOON 101 Freshman Bassoon I Credits: 2-4
BASSOON 102 Freshman Bassoon II Credits: 2-4
BASSOON 201 Sophomore Bassoon I Credits: 2-4
BASSOON 202 Sophomore Bassoon II Credits: 2-4
BASSOON 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance. **Co-requisites:** Enrollment in lessons.

BASSOON 301 Junior Bassoon I Credits: 2-4
BASSOON 302 Junior Bassoon II Credits: 2-4
BASSOON 401 Senior Bassoon I Credits: 2-4
BASSOON 402 Senior Bassoon II Credits: 2-4
BASSOON 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance. **Co-requisites:** Enrollment in lessons or recital.

BASSOON 5500A Graduate Bassoon-Secondary Credits: 2
BASSOON 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

BASSOON 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

BASSOON 5501 Graduate Bassoon - Masters Performance Credits: 4
BASSOON 5601 Graduate Bassoon - Doctoral Performance Credits: 4
Cello Courses

CELLO 100A Preparatory Applied Study Credits: 2
One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

CELLO 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

CELLO 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

CELLO 101 Freshman Cello I Credits: 2-4
CELLO 102 Freshman Cello II Credits: 2-4
CELLO 201 Sophomore Cello I Credits: 2-4
CELLO 202 Sophomore Cello II Credits: 2-4
CELLO 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Co-requisites: Enrollment in lessons.

CELLO 301 Junior Cello I Credits: 2-4
CELLO 302 Junior Cello II Credits: 2-4
CELLO 401 Senior Cello I Credits: 2-4
CELLO 402 Senior Cello II Credits: 2-4
CELLO 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

CELLO 5500A Graduate Cello - Secondary Credits: 2
CELLO 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

CELLO 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

CELLO 5501 Graduate Cello - Masters Performance Credits: 4
CELLO 5601 Graduate Cello - Doctoral Performance Credits: 4

Clarinet Courses

CLARINET 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

CLARINET 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

CLARINET 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

CLARINET 101 Freshman Clarinet I Credits: 2-4
CLARINET 102 Freshman Clarinet II Credits: 2-4
CLARINET 201 Sophomore Clarinet I Credits: 2-4
CLARINET 202 Sophomore Clarinet II Credits: 2-4
CLARINET 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Co-requisites: Enrollment in lessons.

Cross Listings: CLARINET 5300.
CLARINET 301 Junior Clarinet I Credits: 2-4
CLARINET 302 Junior Clarinet II Credits: 2-4
CLARINET 401 Senior Clarinet I Credits: 2-4
CLARINET 402 Senior Clarinet II Credits: 2-4
CLARINET 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

Cross Listings: CLARINET 300.

CLARINET 5500A Graduate Clarinet - Secondary Credits: 2
CLARINET 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

CLARINET 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

CLARINET 5500JC Applied Jazz Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied jazz study in an area other than, and in addition to, their primary performance study.

Prerequisites: Graduate status.

CLARINET 5501 Graduate Clarinet - Masters Performance Credits: 4
CLARINET 5601 Graduate Clarinet - Doctoral Performance Credits: 4

Conservatory Courses

CONSVTY 101C Voice Class I Credits: 2
A course in the fundamentals of correct voice productions; breathing, breath control, study of vowel forms and consonants. Elementary songs. Poise, posture, and stage presence. This course covers two points of view: development of the student's own voice and the pedagogy of voice-class instruction. A voice audition is required before registration.

CONSVTY 103 Fundamentals of Music Theory for Musicians Credits: 2
An introduction to the rudiments of music theory and aural skills. Designed primarily as a review course for Conservatory students. Non-music majors who desire an accelerated theory fundamentals class may also enroll in this course with the approval of the instructor.

CONSVTY 103 - MOTR MUSC 101: Music Fundamentals

CONSVTY 103N Fundamentals of Music Credits: 3
An introduction to the basic elements of music and music notation, including the study of melody, rhythm, scales and keys, triads, 7th chords, the piano keyboard and the musical staff. Designed primarily for those interested in learning about music but with little or no formal study of music theory.

CONSVTY 104 Jazz Improvisation I Credits: 2
A systematic approach to the art of jazz improvisation. Emphasis upon performance as well as analysis.

CONSVTY 108 Beginning Piano for Non-Music Majors Credits: 2
A class for non-music majors to acquire basic piano skills. Popular arrangements and group techniques designed to encourage students to play the piano for pleasure.

CONSVTY 110 Keyboard Skills I Credit: 1
Group instruction focused on developing basic keyboard skills in sight-reading, transposition, harmonization, accompanying, improvisation, technique, and repertoire. Music theory concepts will be reinforced through keyboard applications.

CONSVTY 114 Keyboard Skills I for Piano Majors Credit: 1
Techniques of sight reading, transposition, improvisation and open-score reading.

CONSVTY 115 Keyboard Skills II for Piano Majors Credit: 1
Continuation of CONSVTY 114.

CONSVTY 118 Electronica Credits: 3
An overview of the vast body of music that falls under the label "electronica". Course consists of a historical survey as students acquire language to talk about music, learn how technology informs the creation of the music, and summarize musical trends and cultural influences on the music. Final project is the creation of a piece of electronica using a musical app on a mobile device or a computer.
CONSVTY 120 Music Appreciation Credits: 3
Designed for the general University student with little or no music background and required for Dance Majors (no credit for music majors). An emphasis on the basic elements of music and the historical and stylistic periods, illustrated by examples from different genre, such as instrumental and vocal ensembles, large and small, solo literature for voice and instruments, and dance. Three class sessions a week with frequent live performance and guest speakers.
Prerequisites: Non-music major.

CONSVTY 120 - MOTR MUSC 100: Music Appreciation

CONSVTY 120N Music Appreciation Credits: 3
A distance learning class designed for the general University student with little or no music background. Video lectures, interviews, performances, and discussion threads, are all delivered online. Course emphasizes historical and stylistic periods, genres, and music listening. Interviews with guest professors and performances of Conservatory faculty and students are included. Students may access the course at any time of the day or night, but exams must be taken on campus unless otherwise arranged.
Prerequisites: Non-music major.

CONSVTY 123 Keyboard Skills II Credit: 1
Continued group instruction focused on developing basic keyboard skills in sight-reading, transposition, harmonization, accompanying, improvisation, technique, and repertoire. Music theory concepts will be reinforced through keyboard applications.
Prerequisites: CONSVTY 110.

CONSVTY 125 History and Development of Rock and Roll Credits: 3
Designed for students with little or no music background, the course is an exploration of American popular music from early Rhythm and Blues and Country Western through Woodstock. Examines in detail the social/racial issues most important to the music and the cultural history of twentieth-century America. The course features online video lectures and numerous interviews with professors and scholars from other disciplines, presenting a perspective of the influence of this music on nearly every area of American life. Students are required to participate in online discussion groups as part of the class. Music majors may enroll for music elective credit.
CONSVTY 125 - MOTR MUSC 100RP: Music Appreciation-Rock/Pop

CONSVTY 126 Introduction to World Music Credits: 3
Introduction to World Music provides tools and paths for you to see the world differently and to enhance diversity by exploring musical traditions from around the world, many of which exist in Kansas City. Through lectures, videos, and live performances, Introduction to World Music will provide insight into the musical cultures of Africa, North America, the Caribbean, India, East Asia, Korea and Latin America and transform your view of our rapidly changing society. Open to all students.
CONSVTY 126 - MOTR MUSC 102: World Music

CONSVTY 128 Music Teaching Matters: A Professional Beginning Credits: 2
Music Teaching Matters: A Professional Beginning (CONS 128) allows students to explore the professional world of teaching music. Students will develop the ability to think and act like professional music educators through readings, discussions, presentations, field experiences, interviews, reflections, and opportunities to practice your craft as a teacher.
CONSVTY 133 Beginning Composition I Credits: 3
Introduction to the compositional process, including notation, calligraphy and score preparation, styles and forms, and related topics. A weekly one-hour lab is required.
CONSVTY 133A Beginning Composition For Non-Composition Majors I Credits: 2
An introductory course in music composition, with exercises in instrumentation, notation, orchestration, form, melodic construction, harmony, counterpoint, and rhythm. Discussion and analysis of current works, trends and techniques in music composition. Final project is an original composition. A weekly one-hour lab is required.
CONSVTY 133B Beginning Composition for Prospective Composition Majors Credits: 3
A class for students wishing to work toward major status in the music composition program. Exercises and projects as in 133A, with an extra hour per-week of in-depth, guided exercises and portfolio development. A weekly one-hour lab is required.
CONSVTY 134 Beginning Composition II Credits: 3
Continuation of CONSVTY 133.
Prerequisites: CONSVTY 133.
CONSVTY 134A Beginning Composition for Non-Composition Majors II Credits: 2
A weekly one-hour lab is required.
Prerequisites: CONSVTY 133A.

CONSVTY 134B Beginning Composition for Prospective Composition Majors II Credits: 3
Continuation of CONSVTY 133B. Exercises and projects as in CONSVTY 134A., with an extra hour per-week of in-depth, guided exercises and portfolio development. A weekly one-hour lab is required.
Prerequisites: CONSVTY 133B.

CONSVTY 138 Music Therapy Foundations Credits: 2
This course provides students with foundational information pertaining to the music therapy profession. Course topics include the history of music therapy, populations that music therapists serve, and an introduction to the use of music in therapeutic settings.
Prerequisites: Music Therapy Student.

CONSVTY 141 Musicianship I Credits: 4
Musicianship I focuses on diatonic harmony through an integration of theory and aural skills. It covers a music fundamentals review, principles of chord construction, four-part writing and harmonic syntax, as well as the application of concepts in analytical assignments and projects, dictation, and singing. Particular attention is given to the development of critical writing skills and the creation of stylistic compositions.
Co-requisites: CONSVTY 110.

CONSVTY 142 Musicianship II Credits: 4
Continuation of CONSVTY 141 with attention to phrase structure, small forms, and an introduction to chromaticism including such topics as applied chords, simple modulation, and modal mixture. Particular attention is given to the development of critical writing skills and the creation of stylistic compositions.
Prerequisites: CONSVTY 141.
Co-requisites: CONSVTY 123.

CONSVTY 180 Music in Special Education Credits: 3
Class demonstration and participation in the use of music materials for handicapped children.

CONSVTY 185B Foreign Language For Singing II Credits: 2
A course for Italian diction. Emphasis is placed on sung rather than conversational pronunciation. Required for BM voice.

CONSVTY 185C Foreign Language For Singing III Credits: 2
A course for German diction. Emphasis is placed on sung rather than conversational pronunciation. Required for BM voice.

CONSVTY 185D Foreign Language For Singing Iv Credits: 2
A course for French diction. Emphasis is placed on sung rather than conversational pronunciation. Required for BM voice.

CONSVTY 202 Basic Techniques of Audio Recording I Credits: 3
A study of the philosophy, history, and development of audio recording. Practical application of recording techniques and development of recording skills.

CONSVTY 203 Basic Techniques of Audio Recording II Credits: 3
Continuation of study of recording techniques and development of recording skills.
Prerequisites: CONSVTY 202.

CONSVTY 204 Jazz Improvisation II Credits: 2
Prerequisites: CONSVTY 104.

CONSVTY 205 Applied Jazz Studies Credits: 2
Unlimited repeatability. This weekly private lesson includes the study of advanced concepts used to compose spontaneously. Includes the analyses of harmonic progressions, applications of scales and rhythmic interpretation. Only open to Jazz majors.

CONSVTY 210A Clinical Experience: I Credit: 1
Clinical Experience I.

CONSVTY 210B Clinical Experience: II Credit: 1
Primarily assists the site coordinator with some leadership responsibilities.

CONSVTY 210C Clinical Experience: III Credit: 1
Equal assisting and leading responsibilities on-site

CONSVTY 210D Clinical Experience: Iv Credit: 1
Some assisting and primarily leading responsibilities on-site.

CONSVTY 210E Clinical Experience: V Credit: 1
Clinical Experience V.
Co-requisites: CONSVTY 408.
CONSVTY 210F Clinical Experience VI Credit: 1
Clinical Experience VI.
Co-requisites: CONSVTY 409.

CONSVTY 223 Keyboard Skills III Credit: 1
Group instruction focused on developing intermediate keyboard skills in sight-reading, transposition, harmonization, accompanying, improvisation, technique, and repertoire. Music theory concepts will be reinforced through keyboard applications.
Prerequisites: CONSVTY 123.

CONSVTY 233 Intermediate Composition I Credits: 3
Continuation of CONSVTY 134. A weekly one-hour lab is required.
Prerequisites: CONSVTY 134.

CONSVTY 233A Intermediate Composition for Non-Composition Majors I Credits: 2
Continuation of CONSVTY 134A. A weekly one-hour lab is required.
Prerequisites: CONSVTY 134A.

CONSVTY 234 Intermediate Composition II Credits: 3
Continuation of CONSVTY 233.
Prerequisites: CONSVTY 233.

CONSVTY 234A Intermediate Composition for Non-Composition Majors II Credits: 2
Continuation of CONSVTY 233A. A weekly one-hour lab is required.
Prerequisites: CONSVTY 233A.

CONSVTY 235 Techniques of Electronic Music I: Digital Audio Credits: 3
This course is designed to give students a thorough grasp of studio hardware and software used in composing music with digital audio. Studio configuration, sampling/recording, mixing, effects processing, synthesis, multi-tracking, wave editor and digital audio work station software, basic MIDI and electroacoustic literature and ear training will be discussed in the process of creating a short original composition. Focus will also be on fostering independent creativity and problem solving in a music studio. In addition to three 50-minute lecture/demo sessions per week, 3-5 hours minimum of in-studio work time is expected. Open to anyone regardless of musical training.

CONSVTY 236 Techniques of Electronic Music II: MIDI Credits: 3
This course is designed to give students a grasp of studio hardware and software used in composing music with MIDI. Studio configuration, sampling, mixing, effects processing, multi-tracking, MIDI, and basic digital audio work station software will be taught along with electroacoustic literature and ear training. The course focuses on creating a short composition using MIDI technology. Focus will also be on fostering independent creativity and problem solving in a music studio. In addition to three 50-minute lecture/demo sessions per week, 3-5 hours minimum of in-studio time is expected. Open to anyone regardless of musical training.

CONSVTY 238 Woodwind Techniques and Pedagogy Credit: 1
This course will discuss the fundamentals of playing and teaching woodwind instruments in an authentic setting. In order to achieve this, students are required to develop some performance ability as well as teaching techniques and strategies for each particular woodwind instrument. Basic principles, such as embouchure formation and development, fingerings, transposition, intonation, teaching materials, and teaching techniques will be covered. Flute, Clarinet, Saxophone, Oboe and Bassoon will be discussed during this course.

CONSVTY 239 Brass Techniques and Pedagogy Credit: 1
This course will discuss the fundamentals of playing and teaching brass instruments in an authentic setting. In order to achieve this, students are required to develop some performance ability as well as teaching techniques and strategies for each particular brass instrument. Basic principles, such as embouchure formation and development, fingerings, transposition, intonation, teaching materials, and teaching techniques, will be covered. Trumpet, French Horn, Trombone, Baritone, and Tuba will be discussed during the course.

CONSVTY 241 Musicianship III Credits: 4
Continuation of CONSVTY 142. Study of harmonic structures such as Neapolitan and augmented sixth chords, chromatic modulation, and symmetry. Detailed examination of larger forms and genres such as sonata, rondo, art song, and fugue. Particular attention is given to the development of critical writing skills and the creation of stylistic compositions.
Prerequisites: CONSVTY 142.
Co-requisites: CONSVTY 223.

CONSVTY 242 Musicianship IV Credits: 4
Continuation of CONSVTY 241. Study of late-nineteenth century chromaticism and analytical and compositional methods of twentieth and twenty-first century music, including set theory and twelve-tone theory. Particular attention is given to the development of critical writing skills and the creation of stylistic compositions.
Prerequisites: CONSVTY 241.
Co-requisites: CONSVTY 310.
CONSVTY 270 Marching Band & Jazz Ensemble Techniques Credits: 2
This course is designed to prepare pre-service teachers with pedagogical and organizational techniques for marching band and jazz ensembles in the schools. The course will include developing practical rehearsal techniques for teaching body manipulation in space, designing and evaluating marching band field design and maneuvers, jazz ensemble pedagogy, jazz improvisation pedagogy, and the use of appropriate materials. A field experience component will further student interaction with an active band program that will allow continued examination and development of a philosophy on the role of marching band and jazz ensembles within the school curriculum.

CONSVTY 285 Elementary Music Methods Credits: 3
Laboratory course for classroom teachers in which principles of instructional design will be applied to music teaching. Students who have extensive music background may elect CONSVTY 385 in place of CONSVTY 285.

CONSVTY 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Co-requisites: Enrollment in lessons.

CONSVTY 301B Men's Chorus Credit: 1

CONSVTY 301C Bella Voce Credit: 1

CONSVTY 301E Opera Theater Ensemble Credits: 0
An introduction to opera performance techniques for opera chorus/ensemble. Major literature for opera choruses may also be surveyed. Members of this class will be required to perform in the chorus of a UMKC Opera production. This course can be taken at any time during the student's undergraduate degree and will count for one semester toward the requirement in the BM Vocal Performance degree of 2 semesters in a UMKC opera production. Students will be required to audition for the course to help the faculty assign the student to the proper voice part/section.
Prerequisites: Voice Audition.

CONSVTY 301G Ensemble for Composers Credit: 1
Observation, score analysis, non-performance participating during a semester's rehearsals and performance by a participating Conservatory ensemble. Students a.) keep journals that are periodically reviewed and graded by the composition faculty, and b.) meet with composition faculty periodically to review and discuss issues raised in the ensemble settings.
Prerequisites: CONSVTY 234, Four semesters of major ensemble participation as a performer.

CONSVTY 301H Musica Nova Credit: 1

CONSVTY 302 Orchestra Credits: 2
Required of all qualified music majors and open to all interested students by audition.
CONSVTY 302 - MOTR PERF 102O: Music Performance-Orchestra

CONSVTY 303B Jazz Band Credits: 2
The Jazz Ensemble comprises saxophone, trombone, trumpets and rhythm section students of the highest level in the Conservatory and performs repertoire of the highest caliber available to the medium. The curriculum is well balanced between traditional, modern, and original music and requires advanced musical and technical facility amongst its members. The class is open to all UMKC students by audition.

CONSVTY 303C Percussion Ensemble Credit: 1

CONSVTY 303E Jazz Workshop Credit: 1
Jazz Workshop

CONSVTY 303G Jazz Orchestra Credits: 2
The Jazz ensemble comprises saxophone, trombone, trumpets and rhythm section students of the highest level in the Conservatory and performs repertoire of the highest caliber available to the medium. The curriculum is well balanced between traditional, modern, and original music and requires advanced musical and technical facility amongst its members. The class is open to all UMKC students by audition.

CONSVTY 303J Large Ensemble Rhythm Section Workshop Credits: 2
This weekly private lesson includes the study of advanced concepts used to compose spontaneously. Includes the analyses of harmonic progressions, applications of scales and rhythmic interpretation.

CONSVTY 303MP Improvisational Music/Media Performance Ensemble Credits: 2
IMP Ensemble explores improvisation in the broadest definition, where listening and responding become a way of real-time creation. IMP is a think-tank of people willing to risk and fail quickly, so a show can go on, using any new individual media to explore the boundaries of the medium and improvisation. No particular instrumental skill is needed, only an open mind. Non Conservatory students by instructor approval.

CONSVTY 304 Jazz Improvisation III Credits: 2
Prerequisites: CONSVTY 204.
CONSVTY 305A Principles Of Chamber Music Credit: 1
Collaborative music-making in groups of like-instruments (piano ensembles, flute quartets, sax quartets, etc., plus beginning experiences in string quartets, woodwind and brass quintets, etc.). Weekly coaching.

CONSVTY 305B Principles Of Chamber Music Credit: 1
Collaborative music-making in groups of like-instruments (piano ensembles, flute quartets, sax quartets, etc., plus beginning experiences in string quartets, woodwind and brass quintets, etc.). Weekly coaching.

CONSVTY 305C Principles Of Chamber Music Credit: 1
Collaborative music-making in groups of like-instruments (piano ensembles, flute quartets, sax quartets, etc., plus beginning experiences in string quartets, woodwind and brass quintets, etc.). Weekly coaching.

CONSVTY 305E Principles Of Chamber Music Credit: 1
Collaborative music-making in groups of like-instruments (piano ensembles, flute quartets, sax quartets, etc., plus beginning experiences in string quartets, woodwind and brass quintets, etc.). Weekly coaching.

CONSVTY 305G Principles Of Chamber Music Credit: 1
Collaborative music-making in groups of like-instruments (piano ensembles, flute quartets, sax quartets, sax quartets, etc., plus beginning experiences in string quartets, woodwind and brass quintets, etc.). Weekly coachings.

CONSVTY 305H Chamber Orchestra Credit: 1

CONSVTY 305J Chamber Music Guitar Credit: 1

CONSVTY 306A Conservatory Wind Ensemble Credits: 2

CONSVTY 306C Wind Symphony Credits: 2
The Wind Symphony comprises wind, brass and percussion students of the highest level in the Conservatory and performs repertoire of the highest caliber available to the medium. The curriculum is well balanced between traditional, modern, and chamber music and requires advanced musical and technical facility amongst its members. The class is open to all UMKC students by audition.

CONSVTY 307A Canticum Novum Credit: 1

CONSVTY 307B University Singers Credit: 1
Mixed chorus specializing in choral-orchestral literature. May be repeated for credit. Open by audition to University students, regardless of major.

CONSVTY 307C Conservatory Singers Credit: 1

CONSVTY 308A Conservatory Concert Choir Credit: 1

CONSVTY 309 Audio Recording III Credits: 3
Continuation of study of recording techniques and music production skills.
Prerequisites: CONSVTY 203.

CONSVTY 310 Keyboard Skills IV Credit: 1
Group instruction focused on developing intermediate keyboard skills in sight-reading, transposition, harmonization, accompanying, improvisation, technique, and repertoire. Music theory concepts will be reinforced through keyboard applications. The Piano Proficiency Exam is administered as part of this course.
Prerequisites: CONSVTY 223.

CONSVTY 311 Jazz Theory Credits: 2
The basics of written jazz harmony and its nomenclature will be addressed. Topics covered will include but not be limited to jazz scales and modes: chords, i.e. from the 7 through the 13 with all of their frequent jazz alterations; harmonic progressions, reharmonization; voice leading, dissonance; melody, transcription, analysis and the study of form(s). Notation will be addressed throughout. Students will acquire the fundamentals to pursue jazz improvisation, arranging and composition on a more informed level. This class is a prerequisite to Jazz Arranging.

CONSVTY 315 Music Therapy Piano Techniques Credits: 2
Course covers techniques of leading piano stylists from early ragtime to the present. Includes listening, analysis, arranging, and performing.
Prerequisites: Piano Proficiency Exam.
CONSVTY 316 Music Therapy Guitar Techniques Credits: 2
Course covers techniques of leading guitar styles from the 1920’s to present. Includes listening, analysis, transcription, and performing.
**Prerequisites:** CONSVTY 373G.

CONSVTY 317 Music Therapy Ensemble and Improvisation Techniques Credits: 3
Playing and Improvising in free form and from a variety of popular genres from Swing to the present day.
**Prerequisites:** CONSVTY 316; Music Therapy Student.

CONSVTY 318 Jazz Ear Training and Listening Credits: 2
This course offers the student basic fundamental techniques needed to improve aural perceptions in both the translation of hearing into writing and the performance of reading into singing and playing in the jazz idiom. Introduction and practice in singing, aural recognition and writing of intervals and short, simple melodies. Also including rhythm, memory and improvisational drills.
**Prerequisites:** CONSVTY 329.

CONSVTY 319 Opera Role Performance Credits: 2
Preparation, rehearsal and performance of a role in an opera production at UMKC. This course may count toward the 2 semester opera production requirement for the BM in Vocal Performance degree. Credit for non-performing duties such as assistant directing or assistant stage managing may be available with approval of the Vocal Studies faculty and the current Stage Director.
**Prerequisites:** Vocal Audition.

CONSVTY 325 Piano Pedagogy I Credits: 2
Instructional strategies for teaching the beginning piano student including methods, materials, repertoire, technique and the use of music technology. Various aspects of establishing and managing a piano studio will also be addressed.

CONSVTY 325A Piano Pedagogy - Supervised Teaching I Credit: 1
Supervised practicum designed to demonstrate lesson planning and activities for beginning students through the observation of experienced teachers and various supervised teaching experiences.
**Co-requisites:** CONSVTY 325.

CONSVTY 326 Piano Pedagogy II Credits: 2
Instructional strategies for teaching the intermediate and advanced piano student, including methods, materials, repertoire, technique, and the use of music technology.
**Prerequisites:** CONSVTY 325.

CONSVTY 326A Piano Pedagogy - Supervised Teaching II Credit: 1
Supervised practicum designed to demonstrate lesson planning and activities for students of various levels through observation of experienced teachers and various supervised teaching experiences.
**Prerequisites:** CONSVTY 325A.
**Co-requisites:** CONSVTY 326.

CONSVTY 329 Advanced Ear Training Credits: 2
Study of atonal and highly chromatic tonal aural problems, complex rhythms, and recognition of instruments. May be repeated for credit.
**Prerequisites:** CONSVTY 242.

CONSVTY 331 Orchestration I Credits: 2
An introduction to the instruments of the symphony orchestra and rudiments of scoring. Classification of instruments and learning to write for all transposing instruments.
**Prerequisites:** CONSVTY 242.

CONSVTY 331A Orchestration I Credits: 3
An introduction to the instruments of the symphony orchestra and rudiments of scoring. Meets concurrently with CONSVTY 331; the third credit hour is required for music composition and music theory majors.
**Prerequisites:** CONSVTY 242.

CONSVTY 333 Advanced Composition Credits: 3
May be repeated for credit.
**Prerequisites:** CONSVTY 234.

CONSVTY 335 Electronic Music Composition Credits: 3
This course focuses on creating an original music composition in any style utilizing the full range of digital audio or MIDI hardware, software ad techniques available to the student. In addition to weekly meetings arranged with the instructor, 5-8 hours per week of studio time is required. May be repeated for credit.
**Prerequisites:** CONSVTY 235 (or CONSVTY 236).
CONSVTY 341 Principles of Music Business Credits: 3
This Music Business course is in an online format and will provide an overview of the many different careers and business practices in the music industry. The course content will highlight the variables considered when creating, selling and marketing a variety of items in different mediums.

CONSVTY 342 This is Your Brain on Music Credits: 3
This is an introductory course on the connections among music, the brain, and learning. The course provides a basic understanding of the relationship between the brain, music, and human behavior in the physiological, motor, social, emotional, and cognitive domains.

CONSVTY 351 History of Music in Western Civilization I Credits: 3
A chronological study of music in Western civilization with emphasis on periods and styles from early times to the death of Bach. Outside listening required.

CONSVTY 351WI History of Music in Western Civilization I - Writing Intensive Credits: 3
George Santayana once reasoned that if you cannot remember the past, you are condemned to repeat it. If that is the case, then as music students you all must ask how the music of the past can inform and change the music you make and make you better musicians. This class examines selected works from Western musical history and explores the biographical, stylistic, and aesthetic issues they raise. It seeks to hone your analytical skills through knowledge of stylistic features while introducing you to musical debates that still rage today.

Prerequisites: ENGLISH 110, ENGLISH 225, RooWriter.

CONSVTY 352 History of Music in Western Civilization II Credits: 3
A chronological study of music in Western civilization from 1750 to the present. Outside listening required.

CONSVTY 352WI History of Music in Western Civilization II - Writing Intensive Credits: 3
A chronological study of music in Western Civilization from 1750 to the present. Outside listening and writing projects required.

Prerequisites: RooWriter.

CONSVTY 353A History And Development Of Jazz I Credits: 3
History of Jazz from its beginning through the present, using recordings, films and musical examples. Emphasis on the major historical trends in Jazz, including Early Jazz, Ragtime, Dixieland, Swing, Bebop, Cool Jazz, Hard Bop, Free Jazz, Jazz-Rock Fusion and modern developments. This course makes use of the Marr Sound Archive, and is appropriate for all students throughout the UMKC Campus.

CONSVTY 353WI History and Development of Jazz II (WI) Credits: 3
This course aims to contextualize jazz within the musical culture of the twentieth century. It is designed to develop the students understanding of jazz from a writing and research perspective. This course concentrates on the lives, bands, and works of people who have been instrumental in the development of the various jazz styles. In-depth analysis of major jazz figures including Louis Armstrong, Duke Ellington, Count Basie, Charlie Parker, Dizzy Gillespie, Thelonious Monk, Clifford Brown, Sonny Rollins, John Coltrane, Miles Davis, Wayne Shorter, and many others. This course is most appropriate for Jazz Studies majors, and other conservatory students with some jazz background and knowledge of the fundamentals of music. This course makes use of the Marr sound Archive.

Prerequisites: CONSVTY 353A, RooWriter.

CONSVTY 357 Choral Literature Credits: 2
Includes listening and analysis as they relate to programming and educational issues in choral ensemble setting. May be repeated for credit.

Prerequisites: CONSVTY 380.

CONSVTY 358 Wind Band Literature and Lab Credits: 3
Designed for the student working with beginning and intermediate levels of wind/percussion instruments. Includes critical analysis and evaluation of literature selection as it relates to educational issues and programming in wind/percussion ensemble settings. Includes an off-campus course meeting with a community wind band rehearsal/performance setting providing opportunities realistic opportunities for observation and teaching.

Co-requisites: CONSVTY 381.

CONSVTY 359 String Literature Credits: 2
Includes listening and analysis as they relate to programming and educational issues in string ensemble settings. May be repeated for credit.

Prerequisites: CONSVTY 381.

CONSVTY 361 Piano Literature I Credits: 3
A survey of study through analysis, reading, listening and performance of literature for stringed keyboard instruments from the Renaissance period to 1850. Special attention given to the development of instruments, forms, techniques, performance practices and idiomatic styles.

CONSVTY 362 Piano Literature II Credits: 3
A study through analysis, reading, listening, and performance of piano repertoire from 1850-present day. Special attention given to the development of instruments, forms, techniques, performance practices and idiomatic styles.

CONSVTY 363 Music Therapy in Wellness and Intergenerational Settings Credits: 3
This course provides students with foundational information pertaining to the music therapy profession. course topics include the history of music therapy, populations that music therapists serve and an introduction to the use of music in therapeutic settings.

Prerequisites: Music Therapy Student.
CONSVTY 364 Yeah, Yeah, Yeah: The Cultural and Musical Impact of the Beatles Credits: 3
This course will explore the career and music of the Beatles by examining their impact on popular culture in Britain and the United States. Students will learn about popular song forms, recording techniques, and lyric writing and analysis. They will also employ video and audio media for projects, and engage with readings that approach the Beatles both historically and culturally.

CONSVTY 366 Clinical Foundations II Credits: 3
This course provides the second-semester clinical student continued practice of direct services, procedures, and documentation of the music therapy treatment process (assessment, setting goals and objectives, treatment plan, interventions, data collection, documentation, and evaluation). Building upon competencies learned in CONSVTY 395 Clinical Foundations, students will experience practice and supervision within the context of community-dwelling older adult populations.

Prerequisites: CONSVTY 395, Music Therapy Student.

Co-requisites: CONSVTY 369.

CONSVTY 367 Music Therapy Capstone Credit: 1
This seminar course assists students in creating a research or clinical-based capstone project.

Prerequisites: CONSVTY 435, Music Therapy Student.

CONSVTY 368 Orchestral Literature for Trumpet Credit: 1
Intended to introduce students to the standard repertoire for orchestral trumpet; class meets once weekly for an hour. Students will be expected to prepare and play approximately a dozen works per semester, rotating parts in a full trumpet section.

CONSVTY 369 Clinical Skills Lab Credit: 1
This course provides students with development, practice, and mastery of clinical music therapy skills. Course topics include, clinical musicianship, repertoire development, and group leadership skills.

CONSVTY 370 Choral/Vocal Techniques Credits: 2
Laboratory applications of vocal pedagogy, ensemble rehearsal technique, literature selection, and performance practice. Students will participate in singing and observation activities in a large ensemble setting with an emphasis on critical analysis of technical and pedagogical issues.

Prerequisites: CONSVTY 380.

CONSVTY 373E Instrumental Techniques Percussion Credit: 1
CONSVTY 373G Instrumental Techniques Guitar Credit: 1
CONSVTY 373N Survey Of Wind And Percussion Instruments Credit: 1
An overview of basic wind and percussion instruments used in public school settings. Includes embouchre formation, hand position, sound production, and pedagogical issues encountered in beginning situations.

CONSVTY 373P Survey Of String Instruments Credit: 1
An overview of basic string instruments used in public school settings. Includes hand position, bowing, sound production, and pedagogical issues encountered in beginning situations.

CONSVTY 376 Collaborative Piano I Credit: 1
Study of collaborative techniques and vocal literature.

CONSVTY 377 Collaborative Piano II Credit: 1
Continuation of CONSVTY 376.

Prerequisites: CONSVTY 376.

CONSVTY 378 Instrumental Ensemble Rehearsal Techniques & Lab Credits: 2
Laboratory applications of large instrumental ensemble (strings, winds, percussion) pedagogy, ensemble rehearsal technique, and performance practice. Students will participate in playing, observation, rehearsal activities in a large ensemble setting with an emphasis on critical analysis of technical pedagogical issues and ensemble performance preparation. Includes an off-campus course meeting.

Prerequisites: CONSVTY 358, CONSVTY 381 and large ensemble requirement.

Co-requisites: CONSVTY 383.

CONSVTY 378L Instrumental Ensemble Rehearsal Lab Credit: 1
Laboratory applications of wind/percussion pedagogy, ensemble rehearsal technique, literature selection, and performance practice. Students will participate in playing, observation, and rehearsal activities in a large ensemble setting with an emphasis on critical analysis of technical pedagogical issues and ensemble performance preparation. This course may meet off-campus.

Prerequisites: CONSVTY 358, CONSVTY 381, large ensemble requirement.

Co-requisites: CONSVTY 378, CONSVTY 383.
CONSVTY 380 Basic Conducting - Choral Credits: 2
A study of the basic techniques of all rhythms, patterns, subdivision of beats, dynamics, starting, stopping, and giving cues through conducting in class. Elementary study of the score as to form and harmonic content will be discussed.
Prerequisites: CONSVTY 242.

CONSVTY 381 Basic Conducting - Instrumental Credits: 2
A study of the basic techniques of all rhythms, patterns, subdivision of beats, dynamics, starting, stopping, and giving cues through conducting in class. Elementary study of the score as to form and harmonic intent will be discussed.
Prerequisites: CONSVTY 242.

CONSVTY 382 Choral Conducting Credits: 2
A study of choral techniques including voice tryouts, placement, attack, release, blend, vocal development, diction, and rehearsal techniques through actual experience of conducting in class.
Prerequisites: CONSVTY 380.
Co-requisites: CONSVTY 387.

CONSVTY 383 Instrumental Conducting Credits: 2
A study of instrumental conducting techniques through actual conducting situations in instrumental groups. Primary objective will be the study of instrumental rehearsal techniques.
Prerequisites: CONSVTY 381.
Co-requisites: CONSVTY 386.

CONSVTY 385 Elementary Music Methods Credits: 3
Basic principles of curriculum planning for music education, investigation of current methods and approaches, and practical teaching experience in laboratory setting. For music majors and non-majors who have extensive musical backgrounds.
Prerequisites: CONSVTY 242, CONSVTY 411C.
Co-requisites: CONSVTY 411C.

CONSVTY 386 Secondary Music Methods - Instrumental Credits: 2
The organization, scheduling and feeder-system techniques of beginning band and orchestral programs through high-school level instruction. Areas of study will include curriculum, pedagogical techniques, library facilities, bidding procedures, basic instrument techniques.
Co-requisites: CONSVTY 383, CONSVTY 411B.

CONSVTY 387 Secondary Music Methods - Choral Credits: 2
The organization of junior and senior high school choral classes to include methods, materials and program building.
Co-requisites: CONSVTY 382, CONSVTY 411B.

CONSVTY 390 Analysis Credits: 3
Analysis offers students the opportunity to learn and apply multiple analytical techniques to complete movements and larger pieces of music by focusing on the study of pitch, rhythm, form, aesthetics, and issues of performance.
Prerequisites: CONSVTY 242.

CONSVTY 395 Clinical Foundations Credits: 3
This course provides the first-year clinical student practice of direct services, procedures, and documentation of the music therapy treatment process (assessment, setting goals and objectives, treatment plan, interventions, data collection, and evaluation). Students will participate in supervision and clinical experiences within the context of community-dwelling older adult populations.
Co-requisites: CONSVTY 369.

CONSVTY 399A Omni Ensemble (A) Credit: 1
Omni ensemble focuses on the fundamental principles of playing violin, viola, cello, and bass effectively within an ensemble setting. The curriculum is centered on the tenets of fine musicianship, including expressivity, characteristic tone, precise intonation, and healthy posture. The Omni ensemble provides instruction and group playing experience to all members of the UMKC community who demonstrate basic proficiency on a string instrument, and to Conservatory of Music and Dance students studying a secondary string instrument.
Prerequisites: Permission from the instructor.

CONSVTY 399B Omni Ensemble (B) Credit: 1
Omni ensemble focuses on the fundamental principles of playing violin, viola, cello, and bass effectively within an ensemble setting, and this course is designed to refine students' performance skills on a secondary string instrument and teaching skills through planning and leading rehearsal segments. The central goals of the course are to: refine skills needed to teach effectively in a string ensemble setting; recognize strengths and weaknesses as a string player and teacher of string players; and implement strategies to continue to improve teaching.
Prerequisites: Successful completion or concurrent enrollment in CONSVTY 381 Instrumental Conducting and permission of the instructor.
CONSVTY 399C Omni Ensemble (C) Credits: 2
Omni ensemble focuses on the fundamental principles of playing violin, viola, cello, and bass effectively within an ensemble setting. The curriculum is centered on the tenets of fine musicianship, including expressivity, characteristic tone, precise intonation, and healthy posture. The central goals of the course are recognition of strengths and weaknesses as a string player; implementation of strategies to improve performance through daily practice; and refinement of expressivity, tone, intonation, and posture on a primary string instrument.

Prerequisites: Permission of the instructor.

CONSVTY 404 Jazz Improvisation IV Credits: 2
This class is a continuation of Jazz Improvisation III. This course features in-depth analyses of the blues and free improvisation focusing on rhythm changes and bi-tonal/polytonal chords. Course includes an in-depth analysis of styles from Dixieland to contemporary jazz. A strong emphasis is places on solo construction and development of individual styles.

Prerequisites: CONSVTY 304.

CONSVTY 405 Philosophical and Pragmatic Foundations of Music Education Credits: 3
This course experience guides students in developing philosophical and social/historical frameworks along with practical skills to assist them in addressing varied opportunities and challenges as a music educator in contemporary American schools.

Prerequisites: Approval of instructor.

Co-requisites: CONSVTY 411A.

CONSVTY 407 Audio Intern Program Credits: 1-3
Practical recording experience interning with Conservatory recording and music production labs with one lecture weekly.

CONSVTY 408 Music in Therapy: Adults Credits: 3
Lecture and clinical demonstration of theory and practice of music therapy with adult clients.

Co-requisites: CONSVTY 369.

CONSVTY 409 Music in Therapy: Children Credits: 3
Lecture and clinical demonstrations of theory and practice of music therapy with children.

Co-requisites: CONSVTY 369.

CONSVTY 410 Internship Credit: 1
A minimum of 900 hours of supervised clinical experience at a Rostered site approved by the American Music Therapy Association or an Affiliate site approved by UMKC Conservatory Music Therapy faculty, to be taken after all other coursework for the music therapy degree, excepting any advanced coursework, is completed.

CONSVTY 411A Field Experience in Music Credit: 1
To introduce music students to a critical examination of the complex nature of teaching, learning, children, and the music classroom/ensemble setting. Students will be expected to spend 30 hours observing, participating, planning and teaching in an assigned music classroom environment during the semester.

Co-requisites: CONSVTY 405.

CONSVTY 411B Field Experience in Music Credit: 1
To introduce music students to secondary school settings and further develop observation, planning and teaching skills. Students will be expected to spend 30 hours in a middle/junior high school music classroom and 30 hours in a high school music classroom for a total of 60 hours during the semester.

Prerequisites: CONSVTY 411A.

Co-requisites: CONSVTY 386 (or CONSVTY 387).

CONSVTY 411C Field Experience in Music Credit: 1
To introduce music students to elementary school music settings and continue to refine observation, planning and teaching skills in secondary school music settings. Students will be expected to spend 30 hours in an elementary school music classroom and 30 hours in either a middle school/junior high or high school music classroom.

Prerequisites: CONSVTY 411B.

Co-requisites: CONSVTY 385.

CONSVTY 412A Student Teaching Music in Elementary School Credits: 4-12
Observation, planning and teaching in an elementary music classroom setting. Students will be expected to spend a minimum of seven weeks teaching full-time under supervision.

Prerequisites: CONSVTY 411C.
CONSVTY 412B Student Teaching Music in Secondary School Credits: 4-12
Observation, planning and teaching in a middle school/junior high or high school music classroom setting. Students will be expected to spend a minimum of seven weeks teaching full-time under supervision.
Prerequisites: CONSVTY 411C.

CONSVTY 417 Opera Workshop Credit: 1
Introduction to opera and opera performance techniques. Class will include performance of opera scenes.

CONSVTY 417E Scene Study Credits: 2
Preparation, rehearsal and performance of scenes from opera, operetta and music theatre. Scenes will be determined and assigned based on student's needs and development. One-act operas may also occasionally be produced in this class.

CONSVTY 417F Opera Role Preparation and Audition Techniques Credit: 1
Students will work on specific audition techniques for the operatic solo singer, which may include dramatic interpretation of repertoire, stage movement, resume building, and other aspects to assist the performer in the audition process.
Prerequisites: CONSVTY 417, Undergraduate Conservatory Student.

CONSVTY 421A Music Theory Review For Graduate Students Credits: 1-3
An intensive review with emphasis placed on analysis.

CONSVTY 421B Aural Skills Review for Graduate Students Credits: 1-3
An intensive review of ear training and sight singing.

CONSVTY 422A Music History Review (early) Credits: 1-3
Graduate-level review of music in Western civilization from antiquity to 1750. Outside listening is required.

CONSVTY 422B Music History Review (Late) Credits: 1-3
Graduate-level review of music in Western civilization from 1750 to the present. Outside listening is required.

CONSVTY 422C Music History Review Credits: 1-3
Graduate-level review of music in Western civilization from antiquity to the present. Outside listening is required.

CONSVTY 423 Business Jazz And Commercial Music Credits: 3
An introduction to the various elements of the music industry, including production, marketing, unions, contracts, broadcasting, licensing agreements and copyrights.

CONSVTY 424 Acoustics Credits: 3
Study of the propagation of sound, the psychology and physiology of hearing, the acoustics of instruments, and of rooms, and tuning systems. Available for graduate credit.

CONSVTY 425A Arranging for Choral Groups Credits: 2
Practice in transcribing vocal music of the current pop idiom. Analysis and writing in contemporary harmonic idioms. Stylistic analysis of solo and choral writing in operettas and musical plays. Scoring for mixed voices, men's voices, and women's voices.
Prerequisites: CONSVTY 424.

CONSVTY 425B Arranging Instrumental Credits: 2
Arranging Instrumental.
Prerequisites: CONSVTY 424.

CONSVTY 426B Jazz Arranging for Small Ensembles Credits: 2
This course will teach the art of Calligraphy as well as the techniques of arranging and orchestration for small jazz ensembles for up to five horns. The course will also include an in-depth study of basic voicings, instrumental sonorities, and some extended forms using intensive listening and score study. UMKC combos, or top Kansas City professionals, will perform final assignments.
Prerequisites: CONSVTY 311.

CONSVTY 426D Jazz Arranging for Big Bands Credits: 2
This course is a continuation of Jazz Arranging for small ensembles. It will cover the basics of arranging and orchestration techniques for big bands. It includes an in-depth study of basic voicing and instrumental sonorities using intensive listening and score study. The students will have a chance to hear their final arrangements performed at the end of the semester by the Concert Jazz Band.
Prerequisites: CONSVTY 426B.

CONSVTY 427 18th-Century Counterpoint Credits: 2
Analysis and writing in 18th century style and forms including canon, invention and fugue.
Prerequisites: CONSVTY 242.

CONSVTY 428 Introduction to Post-Tonal Theory Credits: 3
Analysis and writing in contemporary styles.
Prerequisites: CONSVTY 242.
CONSVTY 431 Orchestration II Credits: 2
A detailed study of the scores of major orchestral and wind ensemble works, plus the application of orchestrational concepts in the creation or orchestration of an original piece of music.
Prerequisites: CONSVTY 331A.

CONSVTY 433 Composition Recital Credits: 3
Preparation and performance of the student's original compositions at one or more concerts sponsored by UMKC Conservatory of Music, with a total of 50 to 60 minutes performance time.
Prerequisites: CONSVTY 333.

CONSVTY 435 Psychological Foundations of Music Credits: 3
The study of the psychological aspects of music including perception, cognition, affect, and preference. An introduction to measurement and experimental research including statistical techniques.

CONSVTY 437 Computer Literacy for Musicians Credit: 1
Computing skills for the music teacher. Study of the computer as a tool for music majors who will teach in public school music classes, direct ensembles, or teach at the college or university level. Hands-on practice with file creation and editing, graphics and character set generation, data analysis, preparation of computer based instruction, and data retrieval. For upper level undergraduate and graduate students.

CONSVTY 438 Creative Collaboration: Ideas and Strategies Credits: 3
Creative Collaboration: Ideas and Strategies investigates the history of collaboration in the arts since the turn of the 20th century. While case studies are drawn from the arts, students from any discipline and field will explore creative collaboration together. The goal of the class is to create a large-scale work in multidiscipline groups. Groups will vary depending on enrollments, but thinking outside the box and full participation regardless of individual discipline is required. course is open to students in any field and discipline.

CONSVTY 440 Jazz Keyboard Techniques I Credits: 2
This course is designed for instrumentalists and music majors developing skills needed to harmonize tunes at the piano and effectively comp in the mainstream jazz group. It is meant to give the student an organized approach for exploring any harmonic style.

CONSVTY 441 Jazz Keyboard Techniques II Credits: 2
Jazz Keyboard Techniques II

CONSVTY 450 Music and Film Credits: 3
Designed for the general university student, this course will survey the use of music in cinema. It will include sections on music, technology, the film medium and the various ways in which music adds to the cinematic experience. Music majors may enroll for elective credit.

CONSVTY 454 Advanced Seminar in Music Theory Credits: 3
Advanced Seminar in Music Theory offers a rotating option of topics in advanced music theory drawn from the research interests and expertise of the music theory faculty.
Prerequisites: CONSVTY 390.

CONSVTY 457 Vocal Literature I Credits: 2
Literature for the solo voice. A course covering the literature from 1600 to present times, illustrated by recordings and members of the class and the instructor. Required for B.M. voice majors.

CONSVTY 458 Vocal Literature II Credits: 2
A continuation of CONSVTY 457.

CONSVTY 460 Organ Literature I Credits: 2
A survey of organ music from the 15th century through 1750.

CONSVTY 469 Organ Literature II Credits: 2
A survey of organ music from 1750 to the present.

CONSVTY 471 Jazz/Commercial Music Pedagogy Credits: 2
This course is designed to develop skills in the teaching of jazz and commercial music. Students will be exposed to a variety of materials, techniques and philosophies and trained in various techniques of rehearsing and conducting jazz ensembles, including the study of scores and recordings of different styles and rehearsal of the Conservatory's jazz ensembles. Includes an emphasis on structuring jazz and studio music curriculum at the College level.
Prerequisites: CONSVTY 381.

CONSVTY 490 Independent Study Credits: 1-3
Intensive reading, research projects, creative work, or special performance in the student's major field, selected by the student in consultation with the appropriate faculty.
CONSVTY 491B Pedagogical Practices I Voice Credits: 2
CONSVTY 491C Pedagogical Practices I Organ Credits: 2
CONSVTY 491D Pedagogical Practices I Strings Credits: 2
CONSVTY 491K Pedagogy of Music Theory Credits: 3
Pedagogy of Music Theory
CONSVTY 492B Pedagogical Practices II Voice Credits: 2
A laboratory experience that includes teaching applied voice in preparation for an end of semester concert experience. The course content includes introduction to skill sets required for teaching applied voice and applied voice studio budget and organization.
Prerequisites: CONSVTY 491B.

CONSVTY 492D Pedagogical Practices II Strings Credit: 1
CONSVTY 494 Performance Styles Credits: 2
A practical approach to the music of the Medieval, Renaissance, Baroque, Early Classical and Contemporary eras through performance. May be repeated for credit. Audition required.

CONSVTY 497 Seminar-Workshop in Music Credits: 1-4
Special courses in techniques, theory, and repertoire taught by the Conservatory staff and visiting specialists.

CONSVTY 497AI Seminar-Workshop in Music Credits: 1-4
Special courses in techniques, theory, and repertoire taught by the Conservatory staff and visiting specialists.

CONSVTY 497AM American Music Company Choral Reading Sessions Credits: 1-4
CONSVTY 497AR Seminar-Workshop In Music Credits: 1-4
CONSVTY 497CP Seminar - Workshop in Music Credits: 1-4
CONSVTY 497CT Seminar Workshop in Music Credits: 1-4
CONSVTY 497ECM Seminar-Workshop In Music Credits: 1-4
CONSVTY 497GC Seminar-Workshop In Music Credits: 1-4
Special courses in techniques, theory, and repertoire taught by the Conservatory staff and visiting specialists.

CONSVTY 497GTR Seminar-Workshop In Music Credits: 1-4
CONSVTY 497HB Seminar Workshop in Music Credits: 1-4
CONSVTY 497HDJ Seminar-Workshop In Music Credits: 1-4
CONSVTY 497HT Seminar Workshop in Music Credits: 1-4
CONSVTY 497JI Seminar-Workshop in Music Credits: 1-4
CONSVTY 497JKI Seminar-Workshop in Music Credits: 1-4
CONSVTY 497JP Seminar Workshop in Music Credits: 1-4
CONSVTY 497JPP Seminar-Workshop In Music Credits: 1-4
CONSVTY 497MU Seminar Workshop in Music Credits: 1-4
CONSVTY 497NG Seminar-Workshop in Music Credits: 1-4
CONSVTY 497OB Seminar-Workshop in Music Credits: 1-4
CONSVTY 497OL Seminar-Workshop In Music Credits: 1-4
CONSVTY 497PL Seminar Workshop In Music Credits: 1-4
CONSVTY 497SI Seminar-Workshop In Music Credits: 1-4
CONSVTY 497ST Seminar Workshop in Music Credits: 1-4
Special courses in techniques, theory, and repertoire taught by the Conservatory staff and visiting specialists.

CONSVTY 498 Research Problems Credits: 2
Individual study under the direction of a faculty adviser, leading to the writing of a formal paper. A public, non-graded presentation of the paper with performance examples is required.

CONSVTY 5116 Minor Opera Role Credit: 1
This is a performance-based course of a minor role in the operatic repertoire and based on the specific repertoire chosen by the Vocal Studies Division. The student may choose to take this course as an elective and will be required to audition for the course at the beginning of the academic school year in order to take this course. Each student who is selected and has accepted the minor operatic role will work with the Conservatory faculty, including the stage director, vocal coaches, voice teachers, and musical director, towards the final staged performance of the selected opera production.
Prerequisites: You must be a graduate student in Vocal Performance in the Conservatory of Music and Dance

CONSVTY 5302 Orchestra Credits: 2
The Conservatory Orchestra comprises string, wind, brass and percussion students of the highest level in the Conservatory and performs repertoire of the highest caliber available to the medium. The repertoire includes the great works for orchestra considered the “standard repertoire” from approximately 1770 to today, and includes orchestral, opera, and choral/orchestral works. Sensitivity to outstanding musicianship, historical styles, and appropriate performance practices are required. In addition to the highest expectations as an instrumentalist, your ability to apply intellect and spirit in meaningful ways during rehearsals and concerts is also demanded. Membership is open to any student who qualifies through audition.

CONSVTY 5305A Principles of Chamber Music Credit: 1
The study and performance of chamber music for strings, piano, winds, brass, and voice. Weekly coaching.

CONSVTY 5305H Chamber Orchestra Credit: 1
The Conservatory Chamber Orchestra comprises instrumental students of the highest level in the Conservatory and performs repertoire of the highest caliber available to the medium. The repertoire includes the “standard repertoire” for chamber orchestra from the Baroque period to new works. The ensemble also “reads” “standard repertoire” for orchestras of all sizes, preparing students for playing these works in a professional setting. Sensitivity to outstanding musicianship, historical styles, and appropriate performance practices are required. Membership is open to any student who qualifies through audition.

Cross Listings: CONSVTY 305H

CONSVTY 5306A Conservatory Wind Ensemble Credits: 2
A select concert band ensemble, designed for high-level, artistic, public performances of major literature for winds and percussion. As a member of this Wind Ensemble, you are contributing to the three hundred year legacy of concert band music in the western world. Sensitivity to outstanding musicianship, historical styles, and appropriate performance practices are required. In addition to the highest expectations as an instrumentalist, your ability to apply intellect and spirit in meaningful ways during rehearsals and concerts is also demanded. Membership in the Wind Ensemble is open to any student who qualifies through audition.

Cross Listings: CONSVTY 306A

CONSVTY 5306C Wind Symphony Credits: 2
The Wind Symphony comprises wind, brass and percussion students of the highest level in the Conservatory and performs repertoire of the highest caliber available to the medium. The curriculum is well balanced between traditional, modern, and chamber music and requires advanced musical and technical facility amongst its members. The class is open to all UMKC students by audition.

Cross Listings: CONSVTY 306C

CONSVTY 5307B Conservatory Singers Credit: 1
This select choir of 32 singers performs chamber chorus repertoire of the 16th–21st centuries at the highest possible artistic level. This class is open to all UMKC students by audition.

Cross Listings: CONSVTY 307C

CONSVTY 5444 The Teaching Performer Credits: 2
The class will focus on teaching techniques for the performing musician, highlighting the advantages of becoming distinguished as a performer and a pedagogue. Premised on the synergistic relationship between teaching and performing, the class will provide a structure for clarifying the essential elements of teaching and musical artistry, and connecting them to such tangible situations as setting up a studio, teaching a master class, interviewing for a job, judging competitions, and recruiting students. The class will provide resources for individuals interested in being university applied faculty, music pedagogy teachers, and professionals looking to add effective teaching to their artistic repertoire.
Conservatory of Music and Dance

CONSVTY 5490 Independent Study Credits: 1-3
Intensive reading, research projects, creative work, or special performance in the student’s major field, selected by the student in consultation with the appropriate faculty.

CONSVTY 5516 Major Opera Role Credits: 2
This is a performance-based course of a major role in the operatic repertoire and based on the specific repertoire chosen by the Vocal Studies Division. The student may choose this course as an elective experience and will be required to audition at the beginning of the academic school year and be awarded a major role in order to take the course. Each student who is selected and has accepted the major operatic role will work with the Conservatory faculty, including the stage director, vocal coaches, voice teachers, and musical director, towards the final staged performance of the selected opera. 

Prerequisites: You must be a graduate student in vocal performance at the Conservatory of Music and Dance.

CONSVTY 5517 Advanced Opera Workshop: Audition Techniques Credit: 1
Students will work on specific audition techniques for the operatic solo singer, which may include dramatic interpretation of repertoire, stage movement, resume building, and other aspects to assist the performer in the audition process.

Prerequisites: You must be a graduate student in the Conservatory of Music Dance to take this course.

CONSVTY 5520 Theory Seminar in the Works of a Composer Credits: 3
Intensive analytical study of the music of a specific composer. Variable topic as selected by the instructor. May be repeated if a different topic.

Prerequisites: Graduate status in the Conservatory of Music and Dance.

CONSVTY 5523 Analytical Procedures Credits: 3
An introduction to recent methods of stylistic and formal analysis including twelve-tone, Schenkerian and set theoretic approaches.

CONSVTY 5524B Advanced Analysis II: 1600-1900 Credits: 3
Theory and analysis of selected works from the 17th through the mid-19th century.

Prerequisites: CONSVTY 5523.

CONSVTY 5524C Advanced Analysis III: 20th Century to the Present Credits: 3
Theory and analysis of selected works from the late 19th century to the present.

Prerequisites: CONSVTY 5523.

CONSVTY 5526A Introduction to Schenkerian Theory and Analysis Credits: 3
An introduction to the theories and analytic methodology of Heinrich Schenker (1868-1935).

Prerequisites: CONSVTY 421A.

CONSVTY 5526B Schenkerian Theory and Analysis Credits: 3
Continuation of CONSVTY 5526A, emphasizing the acquisition of advanced skills in Schenkerian analysis.

Prerequisites: CONSVTY 5526A.

CONSVTY 5527 Advanced Counterpoint: 18th Century Credits: 3
Analysis and writing in 18th century style and forms including canon, invention and fugue.

CONSVTY 5528 Introduction to Post-Tonal Theory Credits: 3
Analysis and writing in contemporary styles.

Prerequisites: CONSVTY 428.

CONSVTY 5529 Aspects of Time and Music Credits: 3
A course offering a broad-based, multi-disciplinary exploration of the natures of time preparatory to an in-depth study of some of music’s primary temporal aspects; these focus on complex treatments of rhythm and meter in tonal music.

Prerequisites: CONSVTY 5523, CONSVTY 5591G.

CONSVTY 5531 Advanced Orchestration Credits: 3
Analysis of advanced orchestration techniques with a focus on relatively recent music for large instrumental ensembles. Discussion of student works-in-progress for orchestra or wind ensemble.

Prerequisites: CONSVTY 431.

CONSVTY 5532 Composition Seminar in the Works of a Composer or Genre Credits: 3
Intensive analytical and compositional study of a specific genre or compositional trend. Variable topic as selected by the instructor. May be repeated if a different topic.

Prerequisites: Graduate status in the Conservatory of Music and Dance

CONSVTY 5533 Advanced Composition Credits: 3
Intensive work in advanced composition in the large forms for various vocal and instrumental ensembles and orchestra. May be repeated for credit.

CONSVTY 5534 Advanced Electronic Music Composition Credits: 3
Creative, original composition of music in diverse styles utilizing the full range of equipment and techniques available. May be repeated for credit.
CONSVTY 5534B Advanced Computer Music Language Study Credits: 3
This course is designed to fulfill the computer language option of the foreign language requirement for DMA students in composition. Focus will be on development and mastery of skills in computer languages specifically related to musical composition, such as MAX or Csound, or in compositional uses of more general languages such as html, C, and Lingo.
Prerequisites: CONSVTY 335.

CONSVTY 5534C Electroacoustic Music Aesthetics and Analysis Credits: 3
An overview of the context and practice of electroacoustic music in two parts: 1) new aesthetic parameters of sonic composition made possible by technology; and 2) creating a cogent analysis of a work by developing individual, personalized analytical tools. Offered in rotation with CONSVTY 5534 and CONSVTY 5534B.

CONSVTY 5536 Improvisation in Music Therapy Credits: 3
This course is designed to learn, lead, and participate in the theory and practice of improvisation in music therapy for clients and therapists.

CONSVTY 5537 Administration of Music Therapy Credits: 3
This course is designed for the person who wishes to become a music therapy professor either entering into an existing program or starting one's own program. It also may be valuable to those considering academia or to be better informed about the academic process when dealing with music therapy programs.

CONSVTY 5540B Advanced Methods In Instrumental Music Credits: 2
Organizational and rehearsal techniques for programs from the beginning bands and orchestras through high school and college ensembles. Includes information regarding methods, materials and program building.

CONSVTY 5540C Advanced Methods In Choral Music Credits: 2
Addresses the organization of secondary and college choral classes and ensembles. Areas of study include methods, materials and program building.

CONSVTY 5541 Theories and Practice of Music Therapy Credits: 3
This course addresses the history and development of the music therapy profession in the United States and other countries. This course is open to music therapy graduate students.

CONSVTY 5542 Clinical Supervision in Music Therapy Credits: 3
This course prepares the music therapist for clinical supervision of music therapy students across training levels and situations. The course includes both theoretical background on supervisee development, issues of clinical supervision, and practical application and skill development in the area of clinical supervision of music therapy students.

CONSVTY 5543 Psychology of Music Credits: 3
The study of psychological aspects of music including acoustical phenomena and factors affecting musical preference, perception and taste. A review of related literature and basic methodology for experimental investigation and quantification of related variables will be included.

CONSVTY 5544 Advanced Clinical Experience Credits: 2
This course provides the graduate student with board certification in music therapy an opportunity to refine and enhance current clinical skills and to develop individually specified American Music Therapy Association Advanced Level Competencies. Students will demonstrate the ability to integrate advanced competencies in musicianship, theory and clinical practice. Students will conform to the AMTA Code of Ethics and standards for Clinical Practice and the CBMT Scope of Practice. The course includes a weekly seminar and clinical rotations at a mutually agreed upon clinical facility.

CONSVTY 5545 Seminar In Music Therapy Credits: 2
This course is designed to address relevant topics in the theory, practice and research of music therapy to promote an advanced level of practice in the music therapist. Topics will be based on faculty scholarship and advanced practice expertise, as well graduate student interest. Course structure will involve weekly meetings with the instructor and independent research and reading by the student.

CONSVTY 5546 Jazz Revolutions: A Historical Perspective Credits: 3
Jazz Revolutions surveys the styles and innovations of jazz musicians who are considered pioneers in the development of jazz. It then places those musicians in a rich cultural and musical context, showing the impact those innovators had on their contemporaries and the musical practices of today both inside and outside of jazz.
Prerequisites: CONSVTY 5593, CONSVTY 5593N.

CONSVTY 5547 Opera History Credits: 3
The history of opera from its origins to the present.
Prerequisites: CONSVTY 5593.

CONSVTY 5548 Opera Literature Credits: 2
A survey of opera literature, opera synopsis, and operatic stagecraft from 1600 to present.
Prerequisites: CONSVTY 5547.

CONSVTY 5550 Musicology Seminar in the Works of a Composer Credits: 3
Intensive study of the music, life, and culture of a specific composer. Variable topic as selected by the instructor. May be repeated if a different topic.
Prerequisites: Graduate status in the Conservatory of Music and Dance.
CONSVTY 5554 Music of the Medieval Era Credits: 3
Seminar in the music of the Middle Ages, from 800 to 1400.
**Prerequisites:** CONSVTY 5593.

CONSVTY 5555 Music Of The Renaissance Credits: 3
Seminar in the music of the Renaissance, from 1400 to 1600.

CONSVTY 5556 Music of the Baroque Era Credits: 3
Seminar in the music of the Baroque era, from 1600 to 1750.
**Prerequisites:** CONSVTY 5593.

CONSVTY 5557 Music of the Classical Era Credits: 3
Seminar in the music of the Classical era, from 1750 to 1828.
**Prerequisites:** CONSVTY 5593.

CONSVTY 5558 Music of the Romantic Era Credits: 3
Seminar in the music of the Romantic era from 1828 to 1914.
**Prerequisites:** CONSVTY 5593.

CONSVTY 5559A Music Since 1900: 1900-1945 Credits: 3
Seminar in music from 1900 to 1945.
**Prerequisites:** CONSVTY 5593.

CONSVTY 5559B Music Since 1900: 1945 to the Present Credits: 3
Seminar in music since 1945.
**Prerequisites:** CONSVTY 5593.

CONSVTY 5560A Seminar: History Of Russian Vocal Music Credits: 3
CONSVTY 5560B Seminar: Nineteenth-Century Nationalism In Music Credits: 3
CONSVTY 5560C Seminar: History Of American Music Credits: 3
CONSVTY 5560D American Musical Theater Credits: 3
A survey of trends in the American musical theater from the 18th century to the present.

CONSVTY 5560E Music and Film Credits: 3
This course will survey the use of music in cinema. It will include sections on music, technology, the film medium and the various ways in which music adds to the cinematic experience.
**Prerequisites:** Graduate status.

CONSVTY 5560F Music of Asia Credits: 3
This course surveys music in East Asia, from historical styles to traditional music to contemporary composition.
**Prerequisites:** Graduate status.

CONSVTY 5560G Music of Latin America Credits: 3
Survey of selected musical traditions (sacred and secular, folk, traditional, and concert music) and representative composers of Central and South America.
**Prerequisites:** CONSVTY 5593.

CONSVTY 5564 History And Literature Of Chamber Music Credits: 3
A study of masterpieces of chamber literature, vocal and instrumental, from various periods, through research, listening, and performance.

CONSVTY 5566A Advanced Vocal Literature: French Melodies Credits: 2
In-depth study of the French melodies of Duparc, Faure, Debussy, Ravel, and Poulenc.

CONSVTY 5566B Advanced Vocal Literature: German Lieder Credits: 2
In-depth study of the German lieder of Schubert, Schumann, Brahms, Wolf, Mahler, and Strauss.

CONSVTY 5566C Advanced Vocal Literature: Nationalistic Art Songs Credits: 2
In-depth study of Nationalistic art songs of Russia, Scandinavia, Spain, and Middle Europe.

CONSVTY 5566D Advanced Vocal Literature: 20Th Century Amer & Engl Art Songs Credits: 2
In-depth study of the 20th Century American and English art songs.

CONSVTY 5569 Graduate Piano Literature Seminar Credits: 2
Advanced study of piano literature through research, analysis and performance. Topics will vary from semester to semester.

CONSVTY 5574 History And Philosophy Of Music Education Credits: 3
An overview of the history of music education in this country from the beginning of the seventeenth century to the present. Also includes a discussion of the major philosophical models used to justify the study of music.
CONSVTY 5576 Professional Aspects Of College Teaching Credits: 2
Designed for graduate students planning a career in college teaching. Covers preparation of job application materials; presentation of a master class; interviews with a search committee and dean; faculty loads and evaluation procedures; tenure and rank, and relationships with students, colleagues and administrators.

CONSVTY 5577 Advanced Vocal Diction Credits: 2
This course is designed to review and hone diction skills in Italian, French and German on the level of professional opera, recital and oratorio performance; the vocal literature is approached through the text with both reading and singing practice, It is limited to graduate vocal majors.
Prerequisites: CONSVTY 171, CONSVTY 172.

CONSVTY 5578 Research for Music Teachers Credits: 3
This course examines common practitioner-based research designs used by music educators. During this class, students will learn about and complete projects that utilize rigorous research design procedures and concepts.

CONSVTY 5580 Advanced Choral Conducting-Masters Level Credit: 1
An overview of conducting topics, including score preparation technique, and performance problems. May be repeated for credit.

CONSVTY 5582A Advanced Choral Conducting - Technique Credits: 2
An introductory study of the techniques of choral conducting. An overview of conducting topics, including score preparation, rehearsal techniques and performance problems. May be repeated for credit.

CONSVTY 5582B Advanced Choral Conducting - Style Credits: 2
A study of conducting problems of music of the Renaissance, Baroque, Classic, Romantic and Twentieth century; further examination of performance problems associated with choral performances of madrigals, chamber music, a cappella works and music utilizing advanced compositional techniques. May be repeated for credit.

CONSVTY 5582C Advanced Choral Conducting-Rehearsal Techniques Credits: 2
An advanced study of methods and rehearsal procedures in the development and organization of choral performance; includes concepts of tone quality, diction, programming, and development of communication skills. May be repeated for credit.

CONSVTY 5583A Advanced Instrumental Conducting Credits: 2
An introductory study of the techniques of instrumental conducting. An overview of conducting topics, including score preparation, rehearsal techniques and performance problems.

CONSVTY 5583B Advanced Instrumental Conducting - Orchestra Credits: 2
A further study of the techniques of instrumental conducting, including such topics as string techniques, performance practice, baton technique and the art of accompaniment.
Prerequisites: CONSVTY 5583A.

CONSVTY 5583C Advanced Instrumental Conducting - Band Credits: 2
A further study of the technique of band conducting, including such topics as wind/percussion techniques, performance practice, baton technique, and contemporary wind chamber repertoire.
Prerequisites: CONSVTY 5583A.

CONSVTY 5584 Systematic and Integrated Reviews in Music Credits: 2
Maintaining an awareness of the vast array of information available in the literature and integrating it into practice is a vital skill for evidence-based and best practice in music-based professions. This course will introduce graduate students to a methodological system of analyzing and synthesizing high quality research to answer a relevant question. The pursuit of scholarly dissemination of information for the advancement of music-based professions will be encouraged.

CONSVTY 5585 Introduction to Descriptive Research in Music Credits: 3
This course examines common descriptive research designs and statistical concepts used by music therapists and music educators. During this class, students will learn about and complete projects that utilize nonparametric and parametric statistical tests.

CONSVTY 5586A Seminar In Orchestral Literature Credits: 2
Advanced study of a variety of styles, periods, and analytical procedures encountered by orchestral conductors. Content will vary from semester to semester. May be repeated for credit.

CONSVTY 5586B Seminar In Wind/Band Literature Credits: 2
Advanced study of a variety of styles, periods, and analytical procedures encountered by instrumental conductors of wind ensembles/bands. Content will vary from semester to semester. May be repeated for credit.

CONSVTY 5587 Seminar In Choral Literature Credits: 2
Each seminar is concerned with the conductor’s viewpoint of a segment of the literature from the specified historical periods and styles, and explores the analysis, interpretation, historical context, and conducting problems of that literature. May be repeated for credit.

CONSVTY 5589 Academic Portfolio Credits: 1-3
Creative synthesis of coursework or clinical experience resulting in original products such as research documents, pedagogical materials, technology applications, music compositions or arrangements, and musical improvisation applications. Portfolio item may not include materials used to meet admission requirements. May be repeated for credit.
Conservatory of Music and Dance

CONSVTY 5589A Academic Portfolio II Credits: 1-3
Additional coursework or clinical experience resulting in original products.
Co-requisites: CONSVTY 5589.

CONSVTY 5590 Special Topics Credits: 1-3
A seminar in selected topics in various fields and idioms of music. May be repeated for credit when the topic varies.

CONSVTY 5590AC Special Topics Credits: 1-3
CONSVTY 5590AD Special Topics Credits: 1-3
CONSVTY 5590BC Special Topics Credits: 1-3
CONSVTY 5590BJ Special Topics Credits: 1-3
CONSVTY 5590CA Special Topics Credits: 1-3
CONSVTY 5590CE Special Topics Credits: 1-3
CONSVTY 5590CF Special Topics Credits: 1-3
CONSVTY 5590CJ Special Topics Credits: 1-3
CONSVTY 5590CL Special Topics Credits: 1-3
CONSVTY 5590CT Special Topics Credits: 1-3
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CONSVTY 5590EC Special Topics Credits: 1-3
CONSVTY 5590EP Special Topics Credits: 1-3
Special Topics
CONSVTY 5590FC Special Topics Credits: 1-3
CONSVTY 5590HE Special Topics Credits: 1-3
CONSVTY 5590HG Special Topics Credits: 1-3
CONSVTY 5590HS Special Topics Credits: 1-3
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CONSVTY 5590MB Special Topics Credits: 1-3
CONSVTY 5590OL Special Topics Credits: 1-3
CONSVTY 5590OW Special Topics Credits: 1-3
CONSVTY 5590PA Special Topics Credits: 1-3
CONSVTY 5590PC Special Topics Credits: 1-3
CONSVTY 5590PO Special Topics Credits: 1-3
CONSVTY 5590PP Special Topics Credits: 1-3
CONSVTY 5590PS Special Topics Credits: 1-3
CONSVTY 5590SE Special Topics Credits: 1-3
CONSVTY 5590SV Special Topics Credits: 1-3
CONSVTY 5590TD Special Topics Credits: 1-3
Special Topics
CONSVTY 5590TF Special Topics Credits: 1-3
CONSVTY 5590TJ Special Topics Credits: 1-3
CONSVTY 5590TT Special Topics Credits: 1-3

CONSVTY 5591E Group Piano Pedagogy Credits: 3
Study of teaching techniques and materials related to teaching group piano at the college level. Course responsibilities include both observation and supervised teaching.

CONSVTY 5591G Pedagogy of Music Theory Credits: 3
Study and application of methods, philosophies, materials and current trends in music theory pedagogy. Students engage in supervised teaching, research projects, and observations of music theory faculty.

CONSVTY 5591H Advanced Pedagogy I - Voice Credits: 2

CONSVTY 5591J Advanced Pedagogy I-General Credits: 2
An overview of basic pedagogical practice including modes of instruction, feedback, reinforcement, and assessment. Students will review current literature in this area and develop a project related to their own teaching.

CONSVTY 5591K Pedagogy of Music History Credits: 3
Techniques and materials related to teaching music history and music appreciation combined with supervised teaching.

CONSVTY 5592E Advanced Piano Pedagogy Credits: 3
Study of teaching techniques and materials related to teaching applied piano at the collegiate level. Course responsibilities include both observation and supervised teaching.

CONSVTY 5592H Advanced Pedagogy II - Voice Credits: 2

CONSVTY 5593 Introduction To Research And Bibliography In Music Credits: 3
A survey of procedure in bibliography, research, and scholarly writing.

CONSVTY 5593N Introduction to Research and Bibliography in Music Credits: 3
A survey of procedures in bibliography, research, and scholarly writing.

CONSVTY 5594A Introduction To Experimental Research In Music Credits: 3
This course provides students with an introduction to experimental methodologies in music. Course topics include a reviewing literature in music, proposal writing, design, data analysis and scholarly writing styles used in music research.

CONSVTY 5597 Master's Recital Credits: 4
For voice students, a one hour weekly participation in Vocal Performance Seminar is required.

CONSVTY 5597A Master's Conducting Performance Credits: 4

CONSVTY 5597B Master's Recital II Credits: 4

CONSVTY 5597CE Master's Recital Credits: 4

CONSVTY 5598 Research Problems Credits: 2
Individual study with a member of the graduate faculty that will culminate in a final project. The project must be completed within two consecutive semesters, submitted to and graded by the supervising professor, and submitted to the Associate Dean of Graduate Studies for archiving.

CONSVTY 5598B Research Problems In Computer Languages And Music Credits: 1-3
Individual study with a member of the adjunct, associate, or graduate faculty. Study will culminate in the production of a project (computer program, CD-ROM, composition, or other document) that demonstrates skills in computer languages specifically related to music. This course fulfills the computer language option of the foreign language for DMA students in composition.

CONSVTY 5599 Thesis Credits: 1-9

CONSVTY 5693 Advanced Research and Bibliography In Music Credits: 3
Advanced procedures in bibliography, research, and scholarly writing.
Prerequisites: CONSVTY 5593.

CONSVTY 5695 Practicum In Music Education Credits: 3-6
Individual conference course requiring the development of a research paper in a special subject and designed to resolve a practical problem of special interest to the student. Conference.

CONSVTY 5697 Doctoral Recital Credits: 4
For voice students, a one hour weekly participation in Vocal Performance Seminar is required.

CONSVTY 5697A Doctoral Lecture Recital Credits: 4

CONSVTY 5697B Doctoral Conducting Performance Credits: 1-4

CONSVTY 5697BP Doctoral Conducting Performance Paper Credit: 1
Individual study with the student's conducting teacher. Study will culminate in the writing of a formal paper addressing aspects of a doctoral conducting performance.
CONSVTY 5697C Doctoral Recital II Credits: 1-4
Additional individual study with the student's applied teacher. Study will culminate in the writing of another formal paper addressing aspects of a doctoral recital.
Co-requisites: CONSVTY 5697P.

CONSVTY 5697D Doctoral Conducting Performance II Credits: 1-4
Additional individual study with the student's conducting teacher. Study will culminate in the writing of another formal paper addressing aspects of a doctoral conducting performance.
Co-requisites: CONSVTY 5697BP.

CONSVTY 5697P Doctoral Recital Paper Credit: 1
Individual study with the student's applied teacher. Study will culminate in the writing of a formal paper addressing aspects of a doctoral recital.

CONSVTY 5698 Research Problems Credits: 2
Individual study with a member of the adjunct, associate, graduate or doctoral faculty. Study will culminate in the writing of a scholarly paper.

CONSVTY 5698A Doctoral Research Problems II Credits: 2
Additional study with a member of the adjunct, associate, graduate or doctoral faculty. Study will culminate in the writing of another scholarly paper.
Co-requisites: CONSVTY 5698.

CONSVTY 5698B Doctoral Music Product Credits: 1-4
Individual study with a member of the adjunct, associate, graduate, or doctoral faculty. Study will culminate in the writing of a creative, original composition, arrangement or edition of music.

CONSVTY 5699 Dissertation Research Credits: 1-16

DANCE Courses
DANCE 107 Dance Production I Credit: 1
A study of the fundamentals of dance production including sound design and recording techniques, video and video editing, lighting design for dance, stage make-up, and costume design and construction. Laboratory projects will be coordinated with actual dance productions.

DANCE 108 Dance Production II Credit: 1
Continuation of DANCE 107.

DANCE 118 Analysis of Movement Credit: 1
This course in movement analysis will explore various aspects of modern dance. The topics that will be introduced are related to: the differences between ballet vocabulary and modern dance vocabulary, the reason and method behind the creation of modern dance, codified modern dance techniques versus non-codified modern dance techniques, Laban Movement Analysis, the principles of the Graham technique versus folding/unfolding, the Doris Humphreys technique and Lester Horton’s fortification. Class discussions, readings, and examples of various works will be used to analyze these topics. Basic improvisational techniques will be utilized to explore these topics.

DANCE 120 Ballet Pedagogy and Analysis Credit: 1
A study of ballet pedagogy, the structure of classical ballet steps, and analysis of movement including basic anatomy, vocabulary and the aesthetics of ballet.
Prerequisites: Dance major.

DANCE 141B Ballet Technique and Theory I Credits: 3
Fundamentals of technique of classical ballet at the intermediate level with attention given to strengthening, stretching, anatomical alignment, and developing the ballet aesthetic. This course includes pointe work. Non-Majors by audition.

DANCE 141M Modern Dance Technique and Theory I Credits: 3
This intermediate level dance course is based on the technique and theory of Lester Horton and fundamental elements of Martha Graham. Designed to fortify, stretch, and strengthen the body, the technique is codified into a series of studies designed to cover a wide range of movement vocabulary. Non-Majors by audition.

DANCE 142B Ballet Technique And Theory II Credits: 3
Continuation of DANCE 141B.

DANCE 142M Modern Dance Technique and Theory II Credits: 3
Continuation of DANCE 141M.

DANCE 213C Men’s Class I Credit: 1
This course is designed to meet the needs of the male dancer and will focus on developing the technique, strength, and agility needed for a professional career.
DANCE 213D Men's Class II Credit: 1
Continuation of DANCE 213C.

DANCE 216 Composition I Credits: 2
An introduction to dance composition focused on the exploration of improvisation, spatial design, sources of movement, and the basic elements of space, time, shape, and motion with additional emphasis on dynamics, rhythm, and sound sources for choreography. With these skills, students are building a foundation and developing tools in creating choreography.

DANCE 218A Composition II Credits: 2
Continuation of Composition I, further exploring of the fundamentals of choreography including locomotion studies, categories of motion, axial movement and sequential and non-sequenter movement. Focusing on the development of solo works and developing choreographic process.

DANCE 218B Composition III Credits: 2
An introduction to the fundamentals of choreography, including the development of dance compositions through the exploration and definition of specific studies, including floor design, shape design, motion design, and time design. Restricted to dance majors.

DANCE 241B Ballet Technique And Theory III Credits: 3
Continuation of DANCE 142B at the intermediate/advanced level including pointe. Restricted to dance majors.

DANCE 241M Modern Dance Technique And Theory III Credits: 3
Continuation of DANCE 142M, on the intermediate/advanced level. Restricted to dance majors.

DANCE 242B Ballet Technique And Theory Iv Credits: 3
Continuation of DANCE 241B, at the intermediate/advanced level including pointe work.

DANCE 242M Modern Technique And Theory Iv Credits: 3
Continuation of DANCE 142M, on the intermediate/advanced level.

DANCE 260 Jazz I Credit: 1
A study of Western Theatrical Dance focusing on Jazz and Afrp-Caribbean based forms.

DANCE 261 Jazz II Credit: 1
Continuation of DANCE 260 with a more in depth study of Western Theatrical Dance focusing on Jazz and Afro-Caribbean based dance forms.

DANCE 301 Advanced Movement Analysis for Dancers Credits: 3
A study of the body which relates specifically to the needs of dancers. Emphasis is placed upon an understanding of the skeletal system, the muscular system, their specific importance to dance technique, and dance injuries and prevention.

DANCE 303 Pilates Credit: 1
A non-impact body conditioning method based on principles of abdominal and scapular stabilization. Introduction to the essential and intermediate mat work, which consists of non-weight bearing exercises. Designed to give the student an understanding of the principles and muscular emphasis behind the Pilates method. Proper alignment, full range of motion, and patterned breathing will be emphasized.

Prerequisites: DANCE 301.

DANCE 304 Fundamentals of Body Alignment and Pilates Credit: 1
A course that is designed for students to develop a greater understanding of body alignment and how to strengthen body alignment through muscular conditioning and Pilates. Non-impact body conditioning exercises that focus on proper alignment, full range of motion, muscular strengthening, core strengthening, muscular imbalances, patterned breathing, and injury prevention will be emphasized. Developing total body strength, alignment, and flexibility through a series of researched dance specific exercises that are carefully designed to reach all muscle groups are presented.

Prerequisites: DANCE 301.

DANCE 305 History Of Dance I Credits: 3
A study of the development of Western theatrical dance forms, from its roots in the European court through the 20th century. Beginning with a brief overview of “early dance,” emphasis will be placed on the study of Renaissance theatre spectacles to the rise of the professional dancer culminating with the 20th century contemporary ballet. This course includes outside reading and writing intensive requirements.

DANCE 306 History Of Dance II Credits: 3
Continuation of DANCE 305 exploring the development of dance as a 20th century Western theatre dance form. Development of modern dance, modern dance pioneers, modern dance development in Europe, African-American contribution to modern dance, modern dance influence on the ballet and the Avant-Garde and Post Modern movements will be studied. Outside reading and writing intensive requirements included.

DANCE 307 Every Body Dances Credits: 3
From Dancing with the Stars and So You Think You Can Dance to Dancing in One World. This classroom—based lecture course will explore what dance is and why people dance from a cultural and historical perspective. The course will include reading, video viewing, lectures, discussions, and participation in dance experiences.
DANCE 310 Conservatory Dance Ensemble Credit: 1
A course designed for the performance component of the BFA degree. Students develop and refine professional performance skills through a diverse repertory of choreographic works and backstage theatre activities. All aspects of a complete performance experience including rehearsals, backstage operations, crew activities, sound operation, stage management, costume management, videography, and company class are developed, culminating with fully produced theater performances, special projects, collaborations, and lecture demonstrations.
Prerequisites: DANCE 107, DANCE 108.

DANCE 313A Partnering/Pas De Deux I Credit: 1
This course is designed to meet the needs of the 300/400 level ballet student and will teach the elementary skills of partnering such as turns, lifts, promenades, and balances.
Prerequisites: DANCE 341B (or higher).

DANCE 313B Partnering/Pas De Deux II Credit: 1
Continuation of DANCE 313A.
Prerequisites: DANCE 341B (or higher).

DANCE 319A Composition IV Credits: 2
An intermediate course in Dance Composition focusing on choreographic clarity and intent. Topics such as abstraction, motif and development, and prop and costumes will be explored.
Prerequisites: DANCE 218B.

DANCE 319B Advanced Choreographic Design Credits: 2
An intermediate course in Dance Composition focusing on choreographic clarity and intent. Topics such as abstraction, motif and development, and prop and costumes will be explored.
Prerequisites: DANCE 319A.

DANCE 341B Ballet Technique And Theory V Credits: 3
Continuation of DANCE 242B, at the advanced level including pointe work. Restricted to dance majors.

DANCE 341M Modern Dance Technique And Theory V Credits: 3
Continuation of DANCE 242M on the advanced level. Restricted to dance majors.

DANCE 342B Ballet Technique And Theory VI Credits: 3
Continuation of DANCE 341B.

DANCE 342M Modern Dance Technique And Theory VI Credits: 3
Continuation of DANCE 341M.

DANCE 403A Modern Technique For Non-Majors Credit: 1
The applied and theoretical study of ballet including traditional ballet vocabulary. Written assignments required.

DANCE 404A Ballet Technique Non-Majors I Credit: 1
Modern Dance Repertory is an advanced course for modern dance majors to study and perform the repertoire and works of renowned contemporary choreographers. It is a parallel to the Ballet Variations course which teaches the repertoire of ballet master works.
Prerequisites: DANCE 341M (or higher).

DANCE 405B Modern Dance Repertory II Credit: 1
Continuation of DANCE 405A.
Prerequisites: DANCE 341M (or higher).

DANCE 413A Advanced Pas De Deux I Credit: 1
Advanced pas de deux is designed to meet the needs of the 400 level ballet student with emphasis placed on perfecting advanced partnering skills. Students will have opportunity to learn pas de deux from great ballets giving students the experience and stamina of dancing entire pas de deuxs. The course provides coaching on both a stylistic approach and a technical approach to the performance of materials presented in class.
Prerequisites: DANCE 441B (or higher).

DANCE 413B Advanced Pas De Deux II Credit: 1
Continuation of DANCE 413A.
Prerequisites: DANCE 441B (or higher).

DANCE 414A Men's Variations I Credit: 1
Men's Variations is designed for the male ballet dancer. Students will have the opportunity to learn and perform renowned variations from the Romantic, Classical, and Neo-Classical periods of ballet. This class will give the male student a true professional coaching experience in their training as they prepare for stage.
Prerequisites: DANCE 341B.
DANCE 414B Men's Variations II Credit: 1
Continuation of DANCE 414A.
Prerequisites: DANCE 341B.

DANCE 415A Variations I Credit: 1
Variations is designed for the 400 level ballet student. The course will teach female variations to the pre-professional student. Students will have
the opportunity to learn and perform renowned variations from Romantic, Classical and Neo-Classical periods of ballet. Students will also work in
traditional practice tutus/costumes in order to give them a true professional experience in their training as they prepare for the stage.
Prerequisites: DANCE 342B.

DANCE 415B Variations II Credit: 1
Continuation of DANCE 415A.
Prerequisites: DANCE 342B.

DANCE 416A Performance Techniques I Credit: 1
A two-semester class rotation focusing on performance techniques of folk and character dances of various countries, traditional vocabulary of
pantomime gestures, and theatrical dance forms including tap, ballroom, and jazz styles.

DANCE 416B Performance Techniques II Credit: 1
A two-semester class rotation focusing on performance techniques of folk and character dances of various countries, traditional vocabulary of
pantomime gestures, and theatrical dance forms including tap, ballroom, and jazz styles.

DANCE 441B Ballet Technique And Theory VII Credits: 3
Continuation of DANCE 432B at the pre-professional level including pre-professional pointe work. Restricted to dance majors.

DANCE 441M Modern Dance Technique And Theory VII Credits: 3
Continuation of DANCE 432M at the pre-professional level. Additionally, this course is designed to prepare the student for auditioning and acquiring
a performing career. Longer combinations with an emphasis on quick retention of material presented in class will be stressed. Restricted to dance
majors.

DANCE 442B Ballet Technique And Theory VIII Credits: 3
Continuation of DANCE 441B, on the pre-professional level including pre-professional pointe work.

DANCE 442M Modern Dance Technique And Theory VIII Credits: 3
Continuation of DANCE 441M on the pre-professional level.

DANCE 493 Senior Capstone Project I Credit: 1
The first semester of the Senior Capstone Project includes planning, organization, and preparation of the final senior project of performance
and choreography. Utilization of production techniques, creation or selection of repertoire of a solo work, and beginning the creation of original
choreographic work in group form utilizing the tools previously developed from the student’s work in composition will be presented during two
scheduled showings during the semester.
Prerequisites: DANCE 319B and appropriate technique levels.

DANCE 494 Senior Capstone Project II Credit: 1
A continuation of DANCE 493, the second semester of the Senior Capstone Project, is the culmination and juried public performance of a fully
produced concert on the main stage to fulfill the requirements of the BFA in Dance. The student will present an original choreographic group work. In
addition, the student will perform in two different dance idioms; including a solo that is self-choreographed or an approved masterwork.
Prerequisites: DANCE 493.

**Euphonium Courses**

EUPHN 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless
the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major.

EUPHN 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area
other than, and in addition to, their primary performance study. No jury examination is required.

EUPHN 100C Applied Study for the Non-Music Major. Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.
EUPHN 101 Freshman Euphonium I Credits: 2-4
EUPHN 102 Freshman Euphonium II Credits: 2-4
EUPHN 201 Sophomore Euphonium I Credits: 2-4
EUPHN 202 Sophomore Euphonium II Credits: 2-4
EUPHN 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.  
**Co-requisites:** Enrollment in lessons.

**Cross Listings:** EUPHN 5300.

EUPHN 301 Junior Euphonium I Credits: 2-4
EUPHN 302 Junior Euphonium II Credits: 2-4
EUPHN 401 Senior Euphonium I Credits: 2-4
EUPHN 402 Senior Euphonium II Credits: 2-4
EUPHN 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.  
**Cross Listings:** EUPHN 300.

EUPHN 5500A Graduate Euphonium-Secondary Credits: 2
EUPHN 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

EUPHN 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

EUPHN 5501 Graduate Euphonium - Master's Performance Credits: 4
EUPHN 5601 Graduate Euphonium - Doctoral Performance Credits: 4

**Flute Courses**

FLUTE 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major.

FLUTE 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

FLUTE 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

FLUTE 101 Freshman Flute I Credits: 2-4
FLUTE 102 Freshman Flute II Credits: 2-4
FLUTE 201 Sophomore Flute I Credits: 2-4
FLUTE 202 Sophomore Flute II Credits: 2-4
FLUTE 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.  
**Co-requisites:** Enrollment in lessons.

**Cross Listings:** FLUTE 5300.

FLUTE 301 Junior Flute I Credits: 2-4
FLUTE 302 Junior Flute II Credits: 2-4
FLUTE 401 Senior Flute I Credits: 2-4
FLUTE 402 Senior Flute II Credits: 2-4
FLUTE 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.  
**Cross Listings:** FLUTE 300.
FLUTE 5500A Graduate Flute-Secondary Credits: 2
FLUTE 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

FLUTE 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

FLUTE 5500JC Applied Jazz Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied jazz study in an area other than, and in addition to, their primary performance study.
Prerequisites: Graduate status.

FLUTE 5501 Graduate Flute - Masters Performance Credits: 4
FLUTE 5601 Graduate Flute - Doctoral Performance Credits: 4

Guitar Courses
GUITAR 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

GUITAR 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

GUITAR 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.
GUITAR 101 Freshman Guitar I Credits: 2-4
GUITAR 101J Freshman Guitar I (Jazz) Credits: 2-4
GUITAR 102 Freshman Guitar II Credits: 2-4
GUITAR 102J Freshman Guitar II (Jazz) Credits: 2-4
GUITAR 201 Sophomore Guitar I Credits: 2-4
GUITAR 201J Sophomore Guitar I (Jazz) Credits: 2-4
GUITAR 202 Sophomore Guitar II Credits: 2-4
GUITAR 202J Sophomore Guitar II (Jazz) Credits: 2-4
GUITAR 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Co-requisites: Enrollment in lessons.
Cross Listings: GUITAR 5300.

GUITAR 301 Junior Guitar I Credits: 2-4
GUITAR 301J Junior Guitar I (Jazz) Credits: 4
GUITAR 302 Junior Guitar II Credits: 2-4
GUITAR 302J Junior Guitar II (Jazz) Credits: 4
GUITAR 401 Senior Guitar I Credits: 2-4
GUITAR 401J Senior Guitar I (Jazz) Credits: 4
GUITAR 402 Senior Guitar II Credits: 2-4
GUITAR 402J Senior Guitar II (Jazz) Credits: 4
GUITAR 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Cross Listings: GUITAR 300.

GUITAR 5500A Graduate Guitar-Secondary Credits: 2
GUITAR 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.
GUITAR 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

GUITAR 5500JA Graduate Applied Jazz Studies Credits: 2
One hour lesson weekly. Jury examination is required.
Prerequisites: Graduate status.

GUITAR 5500JB Special Applied Jazz Studies Credits: 2
One hour lesson weekly. This course is for pedagogical or review purposes. A jury for comments only may be held at the discretion of the faculty.
Prerequisites: Graduate status.

GUITAR 5500JC Applied Jazz Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied jazz study in an area other than, and in addition to, their primary performance study.
Prerequisites: Graduate status.

GUITAR 5501 Graduate Guitar - Masters Performance Credits: 4

GUITAR 5601 Graduate Guitar - Doctoral Performance Credits: 4

Horn Courses

HORN 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

HORN 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

HORN 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

HORN 101 Freshman Horn I Credits: 2-4
HORN 102 Freshman Horn II Credits: 2-4
HORN 201 Sophomore Horn I Credits: 2-4
HORN 202 Sophomore Horn II Credits: 2-4
HORN 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Co-requisites: Enrollment in lessons.

Cross Listings: HORN 5300.

HORN 301 Junior Horn I Credits: 2-4
HORN 302 Junior Horn II Credits: 2-4
HORN 401 Senior Horn I Credits: 2-4
HORN 402 Senior Horn II Credits: 2-4
HORN 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Cross Listings: HORN 300.

HORN 5500A Graduate Horn-Secondary Credits: 2
HORN 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

HORN 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

HORN 5501 Graduate French Horn - Masters Performance Credits: 4
HORN 5601 Graduate Horn - Doctoral Performance Credits: 4
Harpsichord Courses

HRPCHD 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

HRPCHD 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

HRPCHD 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

HRPCHD 101 Freshman Harpsichord I Credits: 2-4
HRPCHD 102 Freshman Harpsichord II Credits: 2-4
HRPCHD 201 Sophomore Harpsichord I Credits: 2-4
HRPCHD 301 Junior Harpsichord I Credits: 2-4
HRPCHD 302 Junior Harpsichord II Credits: 2-4
HRPCHD 401 Senior Harpsichord I Credits: 2-4
HRPCHD 402 Senior Harpsichord II Credits: 2-4
HRPCHD 5500A Graduate Harpsichord-Secondary Credits: 2
HRPCHD 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

HRPCHD 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

Oboe Courses

OBOE 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major.

OBOE 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury performance is required.

OBOE 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

OBOE 101 Freshman Oboe I Credits: 2-4
OBOE 102 Freshman Oboe II Credits: 2-4
OBOE 201 Sophomore Oboe I Credits: 2-4
OBOE 202 Sophomore Oboe II Credits: 2-4
OBOE 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

Co-requisites: Enrollment in lessons.

Cross Listings: OBOE 5300.

OBOE 301 Junior Oboe I Credits: 2-4
OBOE 302 Junior Oboe II Credits: 2-4
OBOE 401 Senior Oboe I Credits: 2-4
OBOE 402 Senior Oboe II Credits: 2-4
OBOE 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

Cross Listings: OBOE 300.
OBOE 5500A Graduate Oboe-Secondary Credits: 2
OBOE 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

OBOE 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

OBOE 5501 Graduate Oboe-Master Performance Credits: 4
OBOE 5601 Graduate Oboe - Doctoral Performance Credits: 4

Organ Courses
ORGAN 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

ORGAN 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

ORGAN 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

ORGAN 101 Freshman Organ I Credits: 2-4
ORGAN 102 Freshman Organ II Credits: 2-4
ORGAN 201 Sophomore Organ I Credits: 2-4
ORGAN 202 Sophomore Organ II Credits: 2-4
ORGAN 301 Junior Organ I Credits: 2-4
ORGAN 302 Junior Organ II Credits: 2-4
ORGAN 401 Senior Organ I Credits: 2-4
ORGAN 402 Senior Organ II Credits: 2-4
ORGAN 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

ORGAN 5500A Graduate Organ-Secondary Credits: 2
ORGAN 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

ORGAN 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

ORGAN 5501 Graduate Organ - Masters Performance Credits: 4
ORGAN 5601 Graduate Organ - Doctoral Performance Credits: 4

Percussion Courses
PERCSN 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

PERCSN 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

PERCSN 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.
PERCSN 101 Freshman Percussion I Credits: 2-4
PERCSN 101J Freshman Percussion I (Jazz) Credits: 2-4
PERCSN 102 Freshman Percussion II Credits: 2-4
PERCSN 102J Freshman Percussion II (Jazz) Credits: 2-4
PERCSN 201 Sophomore Percussion I Credits: 2-4
PERCSN 201J Sophomore Percussion I (Jazz) Credits: 2-4
PERCSN 202 Sophomore Percussion II Credits: 2-4
PERCSN 202J Sophomore Percussion II (Jazz) Credits: 2-4
PERCSN 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

Co-requisites: Enrollment in lessons.

Cross Listings: PERCSN 5300.

PERCSN 301 Junior Percussion I Credits: 2-4
PERCSN 301J Junior Percussion I (Jazz) Credits: 4
PERCSN 302 Junior Percussion II Credits: 2-4
PERCSN 302J Junior Percussion II (Jazz) Credits: 4
PERCSN 401 Senior Percussion I Credits: 2-4
PERCSN 401J Senior Percussion I (Jazz) Credits: 4
PERCSN 402 Senior Percussion II Credits: 2-4
PERCSN 402J Senior Percussion II (Jazz) Credits: 4
PERCSN 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

Cross Listings: PERCSN 300.

PERCSN 5500A Graduate Percussion-Secondary Credits: 2
PERCSN 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

PERCSN 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

PERCSN 5500JA Graduate Applied Jazz Studies Credits: 2
One-hour lesson weekly. Jury examination is required.
Prerequisites: Graduate standing.

PERCSN 5500JB Special Applied Jazz Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. A jury for comments only may be held at the discretion of the faculty.
Prerequisites: Graduate standing.

PERCSN 5500JC Applied Jazz Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied jazz study in an area other than, and in addition to, their primary performance study.
Prerequisites: Graduate standing.

PERCSN 5501 Graduate Percussion - Masters Performance Credits: 4
PERCSN 5601 Graduate Percussion - Doctoral Performance Credits: 4

Piano Courses

PIANO 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.
PIANO 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

PIANO 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

PIANO 101 Freshman Piano I Credits: 2-4

PIANO 101J Freshman Piano I (Jazz) Credits: 2-4

PIANO 102 Freshman Piano II Credits: 2-4

PIANO 102J Freshman Piano II (Jazz) Credits: 2-4

PIANO 201 Sophomore Piano I Credits: 2-4

PIANO 201J Sophomore Piano I (Jazz) Credits: 2-4

PIANO 202 Sophomore Piano II Credits: 2-4

PIANO 202J Sophomore Piano II (Jazz) Credits: 2-4

PIANO 300 Studio Class Credits: 0

PIANO 301 Junior Piano I Credits: 2-4

PIANO 301J Junior Piano I (Jazz) Credits: 4

PIANO 302 Junior Piano II Credits: 2-4

PIANO 302J Junior Piano II (Jazz) Credits: 4

PIANO 401 Senior Piano I Credits: 2-4

PIANO 401J Senior Piano I (Jazz) Credits: 4

PIANO 402 Senior Piano II Credits: 2-4

PIANO 402J Senior Piano II (Jazz) Credits: 4

PIANO 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

PIANO 5500A Graduate Piano-Secondary Credits: 2

PIANO 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

PIANO 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

PIANO 5500JA Graduate Applied Jazz Studies Credits: 2
One-hour lesson weekly. Jury examination is required. 
**Prerequisites:** Graduate standing.

PIANO 5500JB Special Applied Jazz Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. A jury for comments only may be held at the discretion of the faculty. **Prerequisites:** Graduate standing.

PIANO 5500JC Applied Jazz Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied jazz study in an area other than, and in addition to, their primary performance study. **Prerequisites:** Graduate standing.

PIANO 5501 Graduate Piano - Masters Performance Credits: 4

PIANO 5601 Graduate Piano - Doctoral Performance Credits: 4

**Saxophone Courses**

SAXOPH 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.
SAXOPH 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

SAXOPH 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

SAXOPH 101 Freshman Saxophone I Credits: 2-4
SAXOPH 101J Freshman Saxophone I (Jazz) Credits: 2-4
SAXOPH 102 Freshman Saxophone II Credits: 2-4
SAXOPH 102J Freshman Saxophone II (Jazz) Credits: 2-4
SAXOPH 201 Sophomore Saxophone I Credits: 2-4
SAXOPH 201J Sophomore Saxophone I (Jazz) Credits: 2-4
SAXOPH 202 Sophomore Saxophone II Credits: 2-4
SAXOPH 202J Sophomore Saxophone II (Jazz) Credits: 2-4
SAXOPH 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

Co-requisites: Enrollment in lessons.

Cross Listings: SAXOPH 5300.

SAXOPH 301 Junior Saxophone I Credits: 2-4
SAXOPH 301J Junior Saxophone I (Jazz) Credits: 4
SAXOPH 302 Junior Saxophone II Credits: 2-4
SAXOPH 302J Junior Saxophone II (Jazz) Credits: 4
SAXOPH 401 Senior Saxophone I Credits: 2-4
SAXOPH 401J Senior Saxophone I (Jazz) Credits: 4
SAXOPH 402 Senior Saxophone II Credits: 2-4
SAXOPH 402J Senior Saxophone II (Jazz) Credits: 4
SAXOPH 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

Cross Listings: SAXOPH 5300.

SAXOPH 5500A Graduate Saxophone-Secondary Credits: 2
SAXOPH 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

SAXOPH 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

SAXOPH 5500JA Graduate Applied Jazz Studies Credits: 2
One-hour lesson weekly. Jury examination is required.

Prerequisites: Graduate standing.

SAXOPH 5500JB Special Applied Jazz Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. A jury for comments only may be held at the discretion of the faculty.

Prerequisites: Graduate standing.

SAXOPH 5500JC Applied Jazz Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied jazz study in an area other than, and in addition to, their primary performance study.

Prerequisites: Graduate standing.

SAXOPH 5501 Graduate Saxophone - Masters Performance Credits: 4
SAXOPH 5601 Graduate Saxophone - Doctoral Performance Credits: 4
String Bass Courses

STR-BASS 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

STR-BASS 100B Applied Study Of A Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

STR-BASS 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

STR-BASS 101 Freshman String Bass I Credits: 2-4

STR-BASS 101J Freshman St Bass I (Jazz) Credits: 2-4

STR-BASS 102 Freshman String Bass II Credits: 2-4

STR-BASS 102J Freshman St Bass II (Jazz) Credits: 2-4

STR-BASS 201 Sophomore String Bass I Credits: 2-4

STR-BASS 201J Sophomore St Bass I (Jazz) Credits: 2-4

STR-BASS 202 Sophomore String Bass II Credits: 2-4

STR-BASS 202J Sophomore St Bass II (Jazz) Credits: 2-4

STR-BASS 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance. 
Co-requisites: Enrollment in lessons.

Cross Listings: STR-BASS 5300.

STR-BASS 301 Junior String Bass I Credits: 2-4

STR-BASS 301J Junior St Bass I (Jazz) Credits: 4

STR-BASS 302 Junior String Bass II Credits: 2-4

STR-BASS 302J Junior St Bass II (Jazz) Credits: 4

STR-BASS 401 Senior String Bass I Credits: 2-4

STR-BASS 401J Senior St Bass I (Jazz) Credits: 4

STR-BASS 402 Senior String Bass II Credits: 2-4

STR-BASS 402J Senior St Bass II (Jazz) Credits: 4

STR-BASS 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance. 
Cross Listings: STR-BASS 300.

STR-BASS 5500A Graduate String Bass-Secondary Credits: 2

STR-BASS 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

STR-BASS 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

STR-BASS 5500JA Graduate Applied Jazz Studies Credits: 2
One-hour lesson weekly. Jury examination is required. 
Prerequisites: Graduate standing.

STR-BASS 5500JB Special Applied Jazz Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. A jury for comments only may be held at the discretion of the faculty. 
Prerequisites: Graduate standing.

STR-BASS 5500JC Applied Jazz Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied jazz study in an area other than, and in addition to, their primary performance study. 
Prerequisites: Graduate standing.
STR-BASS 5501 Graduate String Bass - Masters Performance Credits: 4
STR-BASS 5601 Graduate String Bass - Doctoral Performance Credits: 4

**Trombone Courses**

**TROMB 100A Preparatory Applied Study Credits: 2**
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

**TROMB 100B Applied Study of a Second Instrument Credits: 2**
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

**TROMB 100C Applied Study for the Non-Music Major Credits: 2**
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

**TROMB 101 Freshman Trombone I Credits: 2-4**
**TROMB 101J Freshman Trombone I (Jazz) Credits: 2-4**
**TROMB 102 Freshman Trombone II Credits: 2-4**
**TROMB 102J Freshman Trombone II (Jazz) Credits: 2-4**
**TROMB 201 Sophomore Trombone I Credits: 2-4**
**TROMB 201J Sophomore Trombone I (Jazz) Credits: 2-4**
**TROMB 202 Sophomore Trombone II Credits: 2-4**
**TROMB 202J Sophomore Trombone II (Jazz) Credits: 2-4**
**TROMB 300 Studio Class Credits: 0**
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance. **Co-requisites:** Enrollment in lessons.

**Cross Listings:** TROMB 5300.

**TROMB 301 Junior Trombone I Credits: 2-4**
**TROMB 301J Junior Trombone I (Jazz) Credits: 4**
**TROMB 302 Junior Trombone II Credits: 2-4**
**TROMB 302J Junior Trombone II (Jazz) Credits: 4**
**TROMB 401 Senior Trombone I Credits: 2-4**
**TROMB 401J Senior Trombone I (Jazz) Credits: 4**
**TROMB 402 Senior Trombone II Credits: 2-4**
**TROMB 402J Senior Trombone II (Jazz) Credits: 4**
**TROMB 5300 Studio Class Credits: 0**
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance. **Cross Listings:** TROMB 300.

**TROMB 5500A Graduate Trombone-Secondary Credits: 2**
**TROMB 5500B Special Applied Studies Credits: 2**
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

**TROMB 5500C Applied Study of a Second Instrument Credit: 1**
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

**TROMB 5500JA Graduate Applied Jazz Studies Credits: 2**
One-hour lesson weekly. Jury examination is required. **Prerequisites:** Graduate standing.

**TROMB 5500JB Special Applied Jazz Studies Credits: 2**
One-hour lesson weekly. This course is for pedagogical or review purposes. A jury for comments only may be held at the discretion of the faculty. **Prerequisites:** Graduate standing.
TROMB 5500JC Applied Jazz Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied jazz study in an area other than, and in addition to, their primary performance study.
**Prerequisites:** Graduate standing.

TROMB 5501 Graduate Trombone - Masters Performance Credits: 4
TROMB 5601 Graduate Trombone - Doctoral Performance Credits: 4

**Trumpet Courses**
TRUMPET 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

TRUMPET 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

TRUMPET 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

TRUMPET 101 Freshman Trumpet I Credits: 2-4
TRUMPET 101J Freshman Trumpet I (Jazz) Credits: 2-4
TRUMPET 102 Freshman Trumpet II Credits: 2-4
TRUMPET 102J Freshman Trumpet II (Jazz) Credits: 2-4
TRUMPET 201 Sophomore Trumpet I Credits: 2-4
TRUMPET 201J Sophomore Trumpet I (Jazz) Credits: 2-4
TRUMPET 202 Sophomore Trumpet II Credits: 2-4
TRUMPET 202J Sophomore Trumpet II (Jazz) Credits: 2-4
TRUMPET 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
**Co-requisites:** Enrollment in lessons.

**Cross Listings:** TRUMPET 5300.
TRUMPET 301 Junior Trumpet I Credits: 2-4
TRUMPET 301J Junior Trumpet I (Jazz) Credits: 4
TRUMPET 302 Junior Trumpet II Credits: 2-4
TRUMPET 302J Junior Trumpet II (Jazz) Credits: 4
TRUMPET 368 Orchestral Literature for Trumpet Credit: 1
Intended to introduce students to the standard repertoire for orchestral trumpet; class meets once weekly for an hour. Students will be expected to prepare and play approximately a dozen works per semester, rotating parts in a full trumpet section.

TRUMPET 401 Senior Trumpet I Credits: 2-4
TRUMPET 401J Senior Trumpet I (Jazz) Credits: 4
TRUMPET 402 Senior Trumpet II Credits: 2-4
TRUMPET 402J Senior Trumpet II (Jazz) Credits: 4
TRUMPET 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
**Cross Listings:** TRUMPET 300.

TRUMPET 5500A Graduate Trumpet-Secondary Credits: 2
TRUMPET 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

TRUMPET 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.
TRUMPET 5500JA Graduate Applied Jazz Studies Credits: 2
One-hour lesson weekly. Jury examination is required.
**Prerequisites:** Graduate standing.

TRUMPET 5500JB Special Applied Jazz Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. A jury for comments only may be held at the discretion of the faculty.
**Prerequisites:** Graduate standing.

TRUMPET 5500JC Applied Jazz Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied jazz in an area other than, and in addition to, their primary performance study.
**Prerequisites:** Graduate standing.

TRUMPET 5501 Graduate Trumpet - Masters Performance Credits: 4

TRUMPET 5601 Graduate Trumpet - Doctoral Performance Credits: 4

**Tuba Courses**

TUBA 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

TUBA 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

TUBA 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

TUBA 101 Freshman Tuba I Credits: 2-4
TUBA 102 Freshman Tuba II Credits: 2-4
TUBA 201 Sophomore Tuba I Credits: 2-4
TUBA 202 Sophomore Tuba II Credits: 2-4
TUBA 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
**Co-requisites:** Enrollment in lessons.

**Cross Listings:** TUBA 5300.

TUBA 301 Junior Tuba I Credits: 2-4
TUBA 302 Junior Tuba II Credits: 2-4
TUBA 401 Senior Tuba I Credits: 2-4
TUBA 402 Senior Tuba II Credits: 2-4
TUBA 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
**Cross Listings:** TUBA 300.

TUBA 5500A Graduate Tuba-Secondary Credits: 2
TUBA 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

TUBA 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

TUBA 5501 Graduate Tuba - Masters Performance Credits: 4
TUBA 5601 Graduate Tuba - Doctoral Performance Credits: 4

**Viola Courses**

VIOLA 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.
VIOLA 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

VIOLA 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

VIOLA 101 Freshman Viola I Credits: 2-4

VIOLA 102 Freshman Viola II Credits: 2-4

VIOLA 201 Sophomore Viola I Credits: 2-4

VIOLA 202 Sophomore Viola II Credits: 2-4

VIOLA 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

**Co-requisites:** Enrollment in lessons.

**Cross Listings:** VIOLA 5300.

VIOLA 500A Graduate Viola-Secondary Credits: 2
VIOLA 500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

VIOLA 500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

VIOLA 5501 Graduate Viola - Masters Performance Credits: 4
VIOLA 5601 Graduate Viola - Doctoral Performance Credits: 4

**Violin Courses**

VIOLIN 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

VIOLIN 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

VIOLIN 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

VIOLIN 100D Applied Study for the Non-Music Major Credit: 1
Nine half-hour lessons. No jury required.

VIOLIN 101 Freshman Violin I Credits: 2-4

VIOLIN 102 Freshman Violin II Credits: 2-4

VIOLIN 201 Sophomore Violin I Credits: 2-4

VIOLIN 202 Sophomore Violin II Credits: 2-4

VIOLIN 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

**Co-requisites:** Enrollment in lessons.

**Cross Listings:** VIOLA 5300.
VIOLIN 301 Junior Violin I Credits: 2-4
VIOLIN 302 Junior Violin II Credits: 2-4
VIOLIN 401 Senior Violin I Credits: 2-4
VIOLIN 402 Senior Violin II Credits: 2-4
VIOLIN 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

Cross Listings: VIOLIN 300.

VIOLIN 5500A Graduate Violin-Secondary Credits: 2
VIOLIN 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

VIOLIN 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

VIOLIN 5501 Graduate Violin - Masters Performance Credits: 4
VIOLIN 5601 Graduate Violin - Doctoral Performance Credits: 4

Voice Courses

VOICE 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

VOICE 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

VOICE 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

VOICE 101 Freshman Voice I Credits: 2-4
One hour weekly participation in Vocal Performance Seminar is required.

VOICE 102 Freshman Voice II Credits: 2-4
One hour weekly participation in Vocal Performance Seminar is required.

VOICE 201 Sophomore Voice I Credits: 2-4
One hour weekly participation in Vocal Performance Seminar is required.

VOICE 202 Sophomore Voice II Credits: 2-4
One hour weekly participation in Vocal Performance Seminar is required.

VOICE 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

Co-requisites: Enrollment in lessons.

VOICE 301 Junior Voice I Credits: 2-4
One hour weekly participation in Vocal Performance Seminar is required.

VOICE 302 Junior Voice II Credits: 2-4
One hour weekly participation in Vocal Performance Seminar is required.

VOICE 401 Senior Voice I Credits: 2-4
One hour weekly participation in Vocal Performance Seminar is required.

VOICE 402 Senior Voice II Credits: 2-4
One hour weekly participation in Vocal Performance Seminar is required.

VOICE 411 Vocal Coaching: Voice Recital Preparation Credit: 1
The purpose of vocal coaching is to aid singers in refining their performance skills in terms of musical style, nuance, language, diction, and character. It is intended to amplify the singer’s understanding of the many aspects of performance including musical shaping, dynamic contrasts, poetic/textual architecture, traditional approaches to literature of various periods and styles, and appropriate performance practices related to voice recitals and/or the operatic stage. In addition, singers will develop additional skills in working with a collaborative pianist and explore appropriate expectations when working with conductors/stage directors.
VOICE 5200 Vocal Coaching: Recital and Operatic Repertoire Credit: 1
The purpose of vocal coaching is to aid singers in refining their performance in terms of musical style, nuance, language, and character. It is intended to amplify the singer's understanding of aspects of performance including musical shaping, dynamic contrasts, poetic/textual architecture, traditional approaches to literature of various periods and styles, and appropriate performance practices.
Prerequisites: You must be a graduate student in vocal performance at the Conservatory of Music Dance.

VOICE 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

VOICE 5311 University Singers Credit: 1
Mixed chorus specializing in choral-orchestral literature. May be repeated for credit. Open by audition to University students, regardless of major.

VOICE 5500A Graduate Voice-Secondary Credits: 2

VOICE 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

VOICE 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

VOICE 5501 Graduate Voice - Masters Performance Credits: 4
One hour weekly participation in Vocal Performance Seminar is required

VOICE 5502 Applied Voice Credits: 2
Applied instruction in voice, focusing primarily on the pedagogical aspects of proper solo vocal singing technique for the graduate level singer.

VOICE 5501 Graduate Voice - Doctoral Performance Credits: 4
One hour weekly participation in Vocal Performance is required.
Undergraduate Programs

The Conservatory of Music and Dance offers the bachelor of fine arts in dance, bachelor of arts, bachelor of music and bachelor of music education degrees. The specific degrees and their requirements are listed on the following pages.

- Admissions (p. 1586)
- Conservatory Minimum Grade Requirements (p. 1587)
- Undergraduate Policies (p. 1635)
Admissions

New Students

New students must meet the general requirements for admission to the University. Additionally, many degrees require an audition and/or interview in the applicant’s major performance field to determine they have met minimum requirements for admission to the Conservatory.

Music Education

Music Education applicants are reviewed by both the Music Education Faculty, and appropriate applied faculty. Applicants must demonstrate facility in their applied performance area and a strong academic record in addition to well-defined attitudes and goals toward music in elementary and secondary education (see fitness-to-teach).

- Music Education applicants must meet at least one of the following requirements:

1. Have an ACT score of at least a 21
2. Be at the 50 percentile or higher in class rank
3. Have a high school grade-point average of 2.5 or better

- Music Education applicants will interview with the Music Education Faculty in a group setting to be scheduled on their chosen audition day.

Transfer Students

All undergraduate transfer music students must:

1. Be admitted to the University and the Conservatory.
2. Present complete official transcripts.
3. Audition for applied placement.
4. Take a theory examination for validation of theory level (Music majors only).

All undergraduate transfer dance students must:

1. Be admitted to the University and the Conservatory.
2. Present complete official transcripts.
3. Audition for placement in ballet and modern.

Transfer students who are admitted into the Conservatory are expected to fulfill all requirements of their declared degree. The University and Conservatory will recognize as many transferable credits as possible, but the curriculum and curricular standards must be fulfilled. This may result in additional semesters of study.
Conservatory Minimum Grade Requirements

Minimum Grade Requirements

1. Music majors enrolled in Conservatory classes must receive a grade of C or better to progress to the next appropriate class level.

2. Dance Division students must receive a grade of C or better in all technique classes to progress to the next appropriate class level.

Note: Some programs may require a higher minimum course grade.
Bachelor of Arts in Music

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

• Demonstrate the ability to write effectively about music in a technical, cultural and historical context.
• Apply concepts from written theory, aural skills, sight reading and singing to attain fluency in western music.
• Develop intermediate keyboarding skills in sight reading, transposition, and harmonization.
• Be able to synthesize concepts in music from a historical, technical construct to inform ideas about community and culture.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td>(ANCH 103 recommended)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>Focus B</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>Focus C</td>
<td>(May be satisfied by the Constitution course requirement below)</td>
<td></td>
</tr>
<tr>
<td>Focus Elective</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
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</tbody>
</table>

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

18

Total Credits

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirements

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions."
Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
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<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
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</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
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<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
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</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

**Major Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOLOGY 102</td>
<td>Biology and Living (Focus B)</td>
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<tr>
<td>BIOLOGY 102L</td>
<td>Biology and Living Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 424</td>
<td>Acoustics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 206</td>
<td>Brief Calculus And Matrix Algebra</td>
<td>3</td>
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<tr>
<td>MATH 210</td>
<td>Calculus I</td>
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<tr>
<td>STAT 235</td>
<td>Elementary Statistics</td>
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<tr>
<td>PSYCH 316</td>
<td>Quantitative Methods In Psychology</td>
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<tr>
<td>SOCIOL 263</td>
<td>Introduction to Statistics in Sociology/Criminal Justice</td>
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**Musicianship**

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<td>CONSVTY 141</td>
<td>Musicianship I</td>
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<tr>
<td>CONSVTY 142</td>
<td>Musicianship II</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 241</td>
<td>Musicianship III</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 242</td>
<td>Musicianship IV</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 351</td>
<td>History of Music in Western Civilization I (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 352</td>
<td>History of Music in Western Civilization II (Focus A)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Music History**

**Keyboard Skills**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 110</td>
<td>Keyboard Skills I</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 123</td>
<td>Keyboard Skills II</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 223</td>
<td>Keyboard Skills III</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 310</td>
<td>Keyboard Skills IV</td>
<td>1</td>
</tr>
</tbody>
</table>

**Capstone Project**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 490</td>
<td>Independent Study</td>
<td>3</td>
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</tbody>
</table>

**Applied Lessons and Studio (5 semesters in one instrument)**

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrument 101 (Freshmen Instrument I)</td>
<td>2</td>
</tr>
<tr>
<td>Instrument 102 (Freshmen Instrument II)</td>
<td>2</td>
</tr>
</tbody>
</table>
Bachelor of Arts in Music

Instrument 201 (Sophomore Instrument I) 2
Instrument 202 (Sophomore Instrument II) 2
Instrument 301 (Junior Instrument I) 2
Instrument 300 (Studio-5 semesters) 2

Analysis
CONSVTY 390 Analysis 3

Ensemble
BLACK 302 (Sophomore Instrument II) 2
Instrument 301 (Junior Instrument I) 2

Choose from the following:
CONSVTY 301C Bella Voce
CONSVTY 302 Orchestra
CONSVTY 306A Conservatory Wind Ensemble
CONSVTY 306C Wind Symphony
CONSVTY 307B University Singers
CONSVTY 307C Conservatory Singers
CONSVTY 308A Conservatory Concert Choir

Electives
Music Electives (CONSVTY 325 Recommended) 4
Electives (Non-music) 27

Total Credits 94

1 Or a 3 credit hour course in Chemistry, Environmental Science, Geology, Physical Science, or Physics.
2 BASSOON, CELLO, CLARINET, Euphonium (EUPHNM), FLUTE, GUITAR, HORN, OBOE, ORGAN, Percussion (PERCSN), PIANO, Saxophone (SAXOPH), String Bass (STR-BASS), Trombone (TROMB), TRUMPET, TUBA, VIOLA, VIOLIN, VOICE.

Code Title Credits
CONSVTY 325

General Electives

Minimum Grade: C or better in all CONSVTY or Instrument specific coursework

GPA Minimum: 2.0

Total Credit hours: 120

Tools for Planning and Fulfilling Academic Requirements

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major "fit". In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student's officially recorded (Office of Registration and Records) and "what if" plans of study. This evaluation is used to certify all graduation requirements.

UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Arts in Music: Music Therapy Emphasis

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

- Be able to play and accompany self, using multiple keys and accompaniment patterns on the guitar and piano while singing in a pleasing tone quality.
- Be able to lead and interact with others in a manner that engages them in the music-based experience as demonstrated by the ability to accompany self while singing, providing clear direction and/or expectation, direct eye contact, and appropriate affect.
- Be able to sight read simple songs using voice, guitar and piano.
- Be able to transcribe a simple, yet complimentary harmonic accompaniment pattern to an unfamiliar musical recording of contemporary music based on a listening experience.
- Describe the music therapy treatment process for various populations served by music therapists.
- Explain professional development and responsibilities used in the field of music therapy.

Additional Admission Criteria

1. Students should be able to qualify for Applied Lessons, for two hours of credit in their major performance area.
2. Emotional stability and good physical stamina are also essential for a music therapist.
3. Applicants are required to complete an interview with a music therapy faculty member prior to admission.

Licensure

Graduates may apply for membership by contacting the American Music Therapy Association (AMTA). For Board Certification, graduates may contact the Certification Board for Music Therapy (CBMT). All coursework must be completed before beginning CONSVTY 410. Therapy students are required to enroll in a professional liability insurance program.

Program Requirements

Program Specific Recommendations for UMKC General Education Core Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I (ANCH 103 recommended)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
</tbody>
</table>
Bachelor of Arts in Music: Music Therapy Emphasis

Focus A (Satisfied in program requirements below)
Focus B 1,2
Focus C (May be satisfied by the Constitution course requirement below. HISTORY 101 OR HISTORY 102 recommended)
Focus Elective (Satisfied in program requirements below)

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement
Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions."

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) 1</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

Major Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 110</td>
<td>Keyboard Skills I</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 123</td>
<td>Keyboard Skills II</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 223</td>
<td>Keyboard Skills III</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 310</td>
<td>Keyboard Skills IV</td>
<td>1</td>
</tr>
</tbody>
</table>

Applied Lessons and Studio 1

| Instrument 101 (Freshmen Instrument I) | 2 |
| Instrument 102 (Freshmen Instrument II) | 2 |
| Instrument 201 (Sophomore Instrument I) | 2 |
| Instrument 202 (Sophomore Instrument II) | 2 |
| Instrument 300 (Studio-4 semesters)   | 2 |

Musicianship

<p>| CONSVTY 141 | Musicianship I    | 4 |
| CONSVTY 142 | Musicianship II   | 4 |
| CONSVTY 241 | Musicianship III  | 4 |</p>
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CONSVTY 242</td>
<td>Musicianship IV</td>
<td>4</td>
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<tr>
<td><strong>Music History and Literature</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSVTY 351</td>
<td>History of Music in Western Civilization I (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 352</td>
<td>History of Music in Western Civilization II (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Computer Literacy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSVTY 437</td>
<td>Computer Literacy for Musicians</td>
<td>1</td>
</tr>
<tr>
<td><strong>Technique</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSVTY 316</td>
<td>Music Therapy Guitar Techniques</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 373G</td>
<td>Instrumental Techniques Guitar</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 380</td>
<td>Basic Conducting - Choral</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 425A</td>
<td>Arranging for Choral Groups</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 315</td>
<td>Music Therapy Piano Techniques</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 373E</td>
<td>Instrumental Techniques Percussion</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 101C</td>
<td>Voice Class I</td>
<td>2</td>
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<tr>
<td><strong>Ensemble (4 semesters from the following)</strong></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 301C</td>
<td>Bella Voce</td>
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<tr>
<td>CONSVTY 302</td>
<td>Orchestra</td>
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</tr>
<tr>
<td>CONSVTY 306A</td>
<td>Conservatory Wind Ensemble</td>
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</tr>
<tr>
<td>CONSVTY 307B</td>
<td>University Singers</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 306C</td>
<td>Wind Symphony</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 307C</td>
<td>Conservatory Singers</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 308A</td>
<td>Conservatory Concert Choir</td>
<td></td>
</tr>
<tr>
<td><strong>Clinical Foundations</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Music Therapy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSVTY 138</td>
<td>Music Therapy Foundations</td>
<td>2</td>
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<tr>
<td>CONSVTY 317</td>
<td>Music Therapy Ensemble and Improvisation Techniques</td>
<td>3</td>
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<td>CONSVTY 342</td>
<td>This is Your Brain on Music (Focus A)</td>
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<tr>
<td>CONSVTY 366</td>
<td>Clinical Foundations II</td>
<td>3</td>
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<td>CONSVTY 395</td>
<td>Clinical Foundations</td>
<td>3</td>
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<tr>
<td>CONSVTY 369</td>
<td>Clinical Skills Lab $^1$ (1cr hour) semesters</td>
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<tr>
<td>CONSVTY 410</td>
<td>Internship</td>
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<td>CONSVTY 408</td>
<td>Music in Therapy:Adults</td>
<td>3</td>
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<tr>
<td>CONSVTY 409</td>
<td>Music in Therapy: Children</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 435</td>
<td>Psychological Foundations of Music</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 210</td>
<td>General Psychology (Focus C)</td>
<td>3</td>
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<tr>
<td><strong>Electives</strong></td>
<td></td>
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<tr>
<td>Electives (Psychology or counseling)</td>
<td>12</td>
<td></td>
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<tr>
<td>Electives (Non-music)</td>
<td>6</td>
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<tr>
<td><strong>Total Credits</strong></td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

**Minimum GPA: 2.0**

**Total Credit Hours: 124**

### Tools for Planning and Fulfilling Academic Requirements

UMKC’s Major Maps ([https://cf1.umkc.edu/majormaps](https://cf1.umkc.edu/majormaps)) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

$^1$ BASSOON, CELLO, CLARINET, Euphonium (EUPHNM), FLUTE, GUITAR, HORN, OBOE, ORGAN, Percussion (PERCSN), PIANO, Saxophone (SAXOPH), String Bass (STR-BASS), Trombone (TROMB), TRUMPET, TUBA, VIOLA, VIOLIN, VOICE
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Bachelor of Fine Arts in Dance

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
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RooWriter Assessment
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Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

• Demonstrate the fine technical skills of a professional performing dance artist.
• Employ the expressive skills of a professional performing dance artist.
• Synthesize advanced choreographic skills with compositional form.
• Produce original choreography with the use of appropriate production elements.
• Show an understanding of dance in an historical, cultural, and stylistic context.

Program Prerequisites
1. Students applying for the dance program must have previous training in ballet and/or modern dance.
2. Applicants will be admitted, upon approval of the dance faculty, following mandatory auditions by the prospective student.
3. All applicants who are accepted to the Dance Division will be admitted on a provisional basis and officially enter the dance program after the completion of the first two semesters. If evidence shows that the BFA dance major is not a good fit for the program, dancers will be counseled to pursue another degree or a more suitable dance program at the time of end of year conferences.

Transfer students
Transfer who are admitted into the dance program are expected to fulfill all requirements of the BFA degree. The Dance Division will recognize as many transferable credits as possible, but curriculum and curricular standards must be fulfilled, possibly resulting in additional semesters of study.

Program Requirements

Program Specific Recommendations for UMKC General Education Core Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td>(ANCH 103 Recommended)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>Focus B</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>
Focus C (May be satisfied by the Constitution course requirement below)
Focus Elective (Satisfied in program requirements below)  

'Total credits' in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

<table>
<thead>
<tr>
<th>Total Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
</tr>
</tbody>
</table>

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

## Constitution Course Requirements

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<th>Credits</th>
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<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) 1</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

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- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

## Major Requirements

Throughout their programs of study, all dancers are expected to maintain general physical fitness and dance aesthetic as prescribed by the dance faculty. Health and dance aesthetic requirements, and many other details, are contained in the Conservatory Dance Student Handbook that is furnished to all dance students. Dance Division Website (http://conservatory.umkc.edu/content.cfm?cont=%22%27%22X%20%0A)

You will be allowed to repeat a technique level after the initial year for only two semesters - for example: if you have completed 141B and 142B and the ballet faculty does not feel you are ready to move up to the 200 level, you will be allowed to repeat the 100 level for only two semesters. If progress in the class still has not been accomplished by that fourth semester, you will not be allowed to continue in the dance program.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANCE 141B</td>
<td>Ballet Technique and Theory I</td>
<td>3</td>
</tr>
<tr>
<td>DANCE 142B</td>
<td>Ballet Technique And Theory II</td>
<td>3</td>
</tr>
<tr>
<td>DANCE 241B</td>
<td>Ballet Technique And Theory III</td>
<td>3</td>
</tr>
<tr>
<td>DANCE 242B</td>
<td>Ballet Technique And Theory IV</td>
<td>3</td>
</tr>
<tr>
<td>DANCE 341B</td>
<td>Ballet Technique And Theory V</td>
<td>3</td>
</tr>
<tr>
<td>DANCE 342B</td>
<td>Ballet Technique And Theory VI</td>
<td>3</td>
</tr>
<tr>
<td>DANCE 441B</td>
<td>Ballet Technique And Theory VII</td>
<td>3</td>
</tr>
<tr>
<td>DANCE 442B</td>
<td>Ballet Technique And Theory VIII</td>
<td>3</td>
</tr>
</tbody>
</table>

Modern Technique and Theory
8 semesters of the following determined by skill level and placement with a minimum grade of C:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANCE 141M</td>
<td>Modern Dance Technique and Theory I</td>
<td>3</td>
</tr>
<tr>
<td>DANCE 142M</td>
<td>Modern Dance Technique and Theory II</td>
<td>3</td>
</tr>
<tr>
<td>DANCE 241M</td>
<td>Modern Dance Technique And Theory III</td>
<td>3</td>
</tr>
<tr>
<td>DANCE 242M</td>
<td>Modern Technique And Theory IV</td>
<td>3</td>
</tr>
<tr>
<td>DANCE 341M</td>
<td>Modern Dance Technique And Theory V</td>
<td>3</td>
</tr>
<tr>
<td>DANCE 342M</td>
<td>Modern Dance Technique And Theory Vi</td>
<td>3</td>
</tr>
<tr>
<td>DANCE 441M</td>
<td>Modern Dance Technique And Theory ViI</td>
<td>3</td>
</tr>
<tr>
<td>DANCE 442M</td>
<td>Modern Dance Technique And Theory Viii</td>
<td>3</td>
</tr>
</tbody>
</table>

**Dance History, Theory and Related Studies**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANCE 107</td>
<td>Dance Production I</td>
<td>1</td>
</tr>
<tr>
<td>DANCE 108</td>
<td>Dance Production II</td>
<td>1</td>
</tr>
<tr>
<td>DANCE 118</td>
<td>Analysis of Movement</td>
<td>1</td>
</tr>
<tr>
<td>DANCE 120</td>
<td>Ballet Pedagogy and Analysis</td>
<td>1</td>
</tr>
<tr>
<td>DANCE 301</td>
<td>Advanced Movement Analysis for Dancers</td>
<td>3</td>
</tr>
<tr>
<td>DANCE 304</td>
<td>Fundamentals of Body Alignment and Pilates</td>
<td>1</td>
</tr>
<tr>
<td>DANCE 305</td>
<td>History Of Dance I</td>
<td>3</td>
</tr>
<tr>
<td>DANCE 306</td>
<td>History Of Dance II</td>
<td>3</td>
</tr>
</tbody>
</table>

**Composition**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANCE 216</td>
<td>Composition I</td>
<td>2</td>
</tr>
<tr>
<td>DANCE 218A</td>
<td>Composition II</td>
<td>2</td>
</tr>
<tr>
<td>DANCE 218B</td>
<td>Composition III</td>
<td>2</td>
</tr>
<tr>
<td>DANCE 319A</td>
<td>Composition IV</td>
<td>2</td>
</tr>
<tr>
<td>DANCE 319B</td>
<td>Advanced Choreographic Design,Composition IV</td>
<td>2</td>
</tr>
</tbody>
</table>

**Jazz**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANCE 260</td>
<td>Jazz I</td>
<td>1</td>
</tr>
<tr>
<td>DANCE 261</td>
<td>Jazz II</td>
<td>1</td>
</tr>
</tbody>
</table>

**Performance Techniques**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANCE 416A</td>
<td>Performance Techniques I</td>
<td>1</td>
</tr>
<tr>
<td>DANCE 416B</td>
<td>Performance Techniques II</td>
<td>1</td>
</tr>
</tbody>
</table>

**Ensemble**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANCE 310</td>
<td>Conservatory Dance Ensemble (6 semesters)</td>
<td>6</td>
</tr>
</tbody>
</table>

**Pas De Deux**

4 semesters of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANCE 313A</td>
<td>Partnering/Pas De Deux I</td>
<td>1</td>
</tr>
<tr>
<td>DANCE 313B</td>
<td>Partnering/Pas De Deux II</td>
<td>1</td>
</tr>
<tr>
<td>DANCE 413A</td>
<td>Advanced Pas De Deux I</td>
<td>1</td>
</tr>
<tr>
<td>DANCE 413B</td>
<td>Advanced Pas De Deux II</td>
<td>1</td>
</tr>
</tbody>
</table>

**Ballet Variations/Modern Rep/Men's Classes**

4 semesters of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANCE 405A</td>
<td>Modern Dance Repertory I</td>
<td>1</td>
</tr>
<tr>
<td>or DANCE 213C</td>
<td>Men's Class I</td>
<td>1</td>
</tr>
<tr>
<td>or DANCE 415A</td>
<td>Variations I</td>
<td>1</td>
</tr>
<tr>
<td>DANCE 405B</td>
<td>Modern Dance Repertory II</td>
<td>1</td>
</tr>
<tr>
<td>or DANCE 213D</td>
<td>Men's Class II</td>
<td>1</td>
</tr>
<tr>
<td>or DANCE 415B</td>
<td>Variations II</td>
<td>1</td>
</tr>
<tr>
<td>DANCE 414A</td>
<td>Men's Variations I</td>
<td>1</td>
</tr>
<tr>
<td>or DANCE 415A</td>
<td>Variations I</td>
<td>1</td>
</tr>
<tr>
<td>DANCE 415A</td>
<td>Variations I</td>
<td>1</td>
</tr>
<tr>
<td>or DANCE 415B</td>
<td>Variations II</td>
<td>1</td>
</tr>
</tbody>
</table>

**Senior Capstone**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANCE 493</td>
<td>Senior Capstone Project I</td>
<td>1</td>
</tr>
</tbody>
</table>
Bachelor of Fine Arts in Dance

DANCE 494  Senior Capstone Project II  1

Supporting Requirements

CONSVTY 120  Music Appreciation (Focus A)  3
or CONSVTY 120N  Music Appreciation
ART-HIST 110  Introduction to the History of Art: Pyramids to Picasso  3

Total Credits  98

Code  Title  Credits

General Electives  3

GPA Minimum: 2.0

Total Credit hours: 125

Tools for Planning and Fulfilling Academic Requirements

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major "fit". In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

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# Bachelor of Music - Core Requirements

## BM Core Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 141</td>
<td>Musicianship I $^1$</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 142</td>
<td>Musicianship II $^1$</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 241</td>
<td>Musicianship III $^1$</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 242</td>
<td>Musicianship IV $^1$</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 390</td>
<td>Analysis $^3$</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 110</td>
<td>Keyboard Skills I $^{1,2}$</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 123</td>
<td>Keyboard Skills II $^{1,2}$</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 223</td>
<td>Keyboard Skills III $^{1,2}$</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 310</td>
<td>Keyboard Skills IV $^{1,2}$</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 351</td>
<td>History of Music in Western Civilization I $^1$</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 352</td>
<td>History of Music in Western Civilization II $^1$</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 380</td>
<td>Basic Conducting - Choral $^{1,2}$</td>
<td>2</td>
</tr>
<tr>
<td>or CONSVTY 381</td>
<td>Basic Conducting - Instrumental</td>
<td></td>
</tr>
</tbody>
</table>

1. Not required for Bachelor of Music in Jazz Studies
2. Not required for Piano Performance Majors
3. Not required for Bachelor of Music in Jazz Studies, Bachelor of Arts - Music Therapy Emphasis, or Bachelor of Music Education degrees.
Bachelor of Music in Jazz Studies

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Program Requirements

Program Specific Recommendations for UMKC General Education Core Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I (ANCH 103 recommended)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Anchor II</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Anchor III</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Focus B</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied by the Constitution course requirement below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus Elective</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td>’Total credits’ in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.</td>
<td>27</td>
</tr>
</tbody>
</table>

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirements

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions."

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
</tbody>
</table>
HONORS 230  Honors American Government (Focus C) 1
POL-SCI 210  American Government (Focus C) 1

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

Major Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 311</td>
<td>Jazz Theory</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 318</td>
<td>Jazz Ear Training and Listening</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 440</td>
<td>Jazz Keyboard Techniques I</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 441</td>
<td>Jazz Keyboard Techniques II</td>
<td>2</td>
</tr>
<tr>
<td>Instrument 101J (Freshman Instrument I-Jazz)</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Instrument 102J (Freshman Instrument II-Jazz)</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Instrument 201J (Sophomore Instrument I-Jazz)</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Instrument 202J (Sophomore Instrument II-Jazz)</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Instrument 301J (Junior Instrument I-Jazz)</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Instrument 302J (Junior Instrument II-Jazz)</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Instrument 401J (Senior Instrument I-Jazz)</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Instrument 402J (Senior Instrument II-Jazz)</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 353A</td>
<td>History And Development Of Jazz I</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 353WI</td>
<td>History and Development of Jazz II (WI)</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 303E</td>
<td>Jazz Workshop</td>
<td>8</td>
</tr>
<tr>
<td>CONSVTY 303B</td>
<td>Jazz Band</td>
<td>16</td>
</tr>
<tr>
<td>or CONSVTY 303G</td>
<td>Jazz Orchestra</td>
<td></td>
</tr>
<tr>
<td>or CONSVTY 303J</td>
<td>Large Ensemble Rhythm Section Workshop</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 104</td>
<td>Jazz Improvisation I</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 204</td>
<td>Jazz Improvisation II</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 304</td>
<td>Jazz Improvisation III</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 404</td>
<td>Jazz Improvisation IV</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 423</td>
<td>Business Jazz And Commercial Music</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 471</td>
<td>Jazz/Commercial Music Pedagogy</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 426B</td>
<td>Jazz Arranging for Small Ensembles</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 426D</td>
<td>Jazz Arranging for Big Bands</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Credits 87

1 Instrument: GUITAR, PERCUSSION, PIANO, SAXOPHONE, STRING BASS, TROMBONE, or TRUMPET
### Bachelor of Music in Jazz Studies

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

**Grade Minimum:** C or better in all CONSVTY and instrument specific coursework.

**GPA Minimum:** 2.0

**Total Credit Hours:** 123

### Tools for Planning and Filling Academic Requirements

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Bachelor of Music in Music Composition

University Requirements

General Education

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Exit Examinations

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Student Learning Outcomes

Students graduating from this program will:

- Demonstrate their musical voice as creative artists, and consistently produce works.
- Master analytical and technical skills in music in a variety of media and genres.
- Demonstrate their skills as collaborators with performers and generative artists and promote their work.

Major Status

Major status for the B.M. Music Composition degree is determined for new students (freshmen and transfer students) by the faculty through the standard Conservatory admissions process. Prospective Composition majors may enroll in up to four semesters of composition (CONSVTY 133, CONSVTY 134, CONSVTY 233 and CONSVTY 234). CONSVTY 234 is the final semester that a student can petition for major status.

Program Requirements

Program Specific Recommendations for UMKC General Education Core Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td>(ANCH 103 recommended)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
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<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>Focus B</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus C</td>
<td>(May be satisfied by the Constitution course requirement below)</td>
<td></td>
</tr>
<tr>
<td>Focus Elective</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
</tbody>
</table>

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Total Credits 21

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</tr>
<tr>
<td>HISTORY 101</td>
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<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

Major Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 141</td>
<td>Musicianship I</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 142</td>
<td>Musicianship II</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 241</td>
<td>Musicianship III</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 242</td>
<td>Musicianship IV</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 110</td>
<td>Keyboard Skills I</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 123</td>
<td>Keyboard Skills II</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 223</td>
<td>Keyboard Skills III</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 310</td>
<td>Keyboard Skills IV</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 133</td>
<td>Beginning Composition I</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 134</td>
<td>Beginning Composition II</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 233</td>
<td>Intermediate Composition I</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 234</td>
<td>Intermediate Composition II</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 333</td>
<td>Advanced Composition (Take 3 semesters )</td>
<td>9</td>
</tr>
<tr>
<td>CONSVTY 433</td>
<td>Composition Recital</td>
<td>3</td>
</tr>
</tbody>
</table>

Applied Lessons and Studio Class

Choose one of the following: 10

Applied Music Interest Area A: Complete level 101 through 301 in any single primary instrument offered by the Conservatory.
Applied Music Interest Area B: Complete ten hours of primary and/or second instrument applied music courses and/or techniques classes.
Applied Music Interest Area C: Complete six hours of CONSVTY 335 (Electronic Music Composition) plus four hours of 100B level second instrument applied music courses and/or techniques classes.

Music History

CONSVTY 351 | History of Music in Western Civilization I (Focus A) | 3 |
### Analysis, Orchestration and Conducting

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 331A</td>
<td>Orchestration I</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 380</td>
<td>Basic Conducting - Choral</td>
<td>2</td>
</tr>
<tr>
<td>or CONSVTY 381</td>
<td>Basic Conducting - Instrumental</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 390</td>
<td>Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 431</td>
<td>Orchestration II</td>
<td>2</td>
</tr>
</tbody>
</table>

### Advanced Ear Training and Counterpoint

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 329</td>
<td>Advanced Ear Training</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 427</td>
<td>18th-Century Counterpoint</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 428</td>
<td>Introduction to Post-Tonal Theory</td>
<td>3</td>
</tr>
</tbody>
</table>

### Electronic Music

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 235</td>
<td>Techniques of Electronic Music I: Digital Audio</td>
<td>3</td>
</tr>
<tr>
<td>or CONSVTY 236</td>
<td>Techniques of Electronic Music II: MIDI</td>
<td></td>
</tr>
</tbody>
</table>

### Ensemble

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 301G</td>
<td>Ensemble for Composers</td>
<td>8</td>
</tr>
</tbody>
</table>

Students must complete a total of 8 ensemble courses and may select from any ensemble offered by the Conservatory.  
CONSVTY 301G Ensemble for Composers must be taken at least twice in two different semesters.

**Total Credits**: 88

1. **Instrument**: BASSOON, CELLO, CLARINET, EUPHONIUM, FLUTE, GUITAR, HORN, OBOE, ORGAN, PERCUSSION, PIANO, SAXOPHONE, STRING BASS, TROMBONE, TRUMPET, Tuba, VIOLA, VIOLIN, OR VOICE.

2. While all BM Composition students must complete 8 ensemble courses, the total number of credit hours completed will depend upon the ensemble courses selected. Ensemble course options include: CONSVTY 301G, CONSVTY 302, CONSVTY 303MP, CONSVTY 306A, CONSVTY 306C, CONSVTY 307B, CONSVTY 307C, CONSVTY 308A

3. A maximum of 4 hours of 301G Ensemble for Composers will be counted towards graduation requirements.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>8</td>
</tr>
</tbody>
</table>

**GPA Minimum**: 2.0

**Total Credit Hours**: 120

---

### Tools for Planning and Fulfilling Academic Requirements

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Music in Music Theory

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

- Demonstrate music-theoretical knowledge in writing about music
- Use music-theoretical knowledge in academic and public communication about music.
- Use music-theoretical knowledge and ideas to create self-driven research and analytical works.

Program Requirements

**Program Specific Recommendations for UMKC General Education Core Coursework**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td>(ANCH 103 Recommended)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>Focus B</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus C</td>
<td>(May be satisfied by the Constitution course requirement below)</td>
<td></td>
</tr>
<tr>
<td>Focus Elective</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
</tbody>
</table>

'Total credits’ in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

<table>
<thead>
<tr>
<th>Total Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
</tr>
</tbody>
</table>

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirements

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions."

Courses at UMKC that satisfy this state requirement are:
Choose one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td>1</td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

**Major Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 141</td>
<td>Musicianship I</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 142</td>
<td>Musicianship II</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 241</td>
<td>Musicianship III</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 242</td>
<td>Musicianship IV</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 110</td>
<td>Keyboard Skills I</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 123</td>
<td>Keyboard Skills II</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 223</td>
<td>Keyboard Skills III</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 310</td>
<td>Keyboard Skills IV</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 302</td>
<td>Instrument (8 semesters, Studio)</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 301</td>
<td>Instrument 101 (Freshman Instrument I)</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 201</td>
<td>Instrument 102 (Freshman Instrument II)</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 202</td>
<td>Instrument 201 (Sophomore Instrument I)</td>
<td>2</td>
</tr>
<tr>
<td>Instrument 301</td>
<td>Junior Instrument I</td>
<td>2</td>
</tr>
<tr>
<td>Instrument 302</td>
<td>Junior Instrument II</td>
<td>2</td>
</tr>
<tr>
<td>Instrument 401</td>
<td>Senior Instrument I</td>
<td>2</td>
</tr>
<tr>
<td>Instrument 402</td>
<td>Senior Instrument II</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 351</td>
<td>History of Music in Western Civilization I (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 352</td>
<td>History of Music in Western Civilization II (Focus A)</td>
<td>3</td>
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</tbody>
</table>

**Ensemble**

8 semesters from the following

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>CONSVTY 302</td>
<td>Orchestra</td>
</tr>
<tr>
<td>CONSVTY 303MP</td>
<td>Improvisational Music/Media Performance Ensemble</td>
</tr>
<tr>
<td>CONSVTY 306A</td>
<td>Conservatory Wind Ensemble</td>
</tr>
<tr>
<td>CONSVTY 306C</td>
<td>Wind Symphony</td>
</tr>
<tr>
<td>CONSVTY 307B</td>
<td>University Singers</td>
</tr>
<tr>
<td>CONSVTY 307C</td>
<td>Conservatory Singers</td>
</tr>
</tbody>
</table>
Bachelor of Music in Music Theory

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CONSVTY 308A</td>
<td>Conservatory Concert Choir</td>
<td></td>
</tr>
<tr>
<td>Analysis, Orchestration and Conducting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSVTY 329</td>
<td>Advanced Ear Training</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 331A</td>
<td>Orchestration I</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 380</td>
<td>Basic Conducting - Choral</td>
<td>2</td>
</tr>
<tr>
<td>or CONSVTY 381</td>
<td>Basic Conducting - Instrumental</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 390</td>
<td>Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 424</td>
<td>Acoustics 2</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 427</td>
<td>18th-Century Counterpoint</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 428</td>
<td>Introduction to Post-Tonal Theory</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Theory</td>
<td></td>
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</tr>
<tr>
<td>CONSVTY 454</td>
<td>Advanced Seminar in Music Theory</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 491K</td>
<td>Pedagogy of Music Theory</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 498</td>
<td>Research Problems</td>
<td>2</td>
</tr>
<tr>
<td>Major Electives</td>
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<td></td>
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<tr>
<td>Non-Music Electives</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>82</td>
</tr>
</tbody>
</table>

Students must demonstrate functional piano facility, aural skills and satisfactory part-writing and analysis proficiency.

Instrument: BASSOON, CELLO, CLARINET, EUPHONIUM, FLUTE, GUITAR, HORN, OBOE, ORGAN, PERCUSSION, PIANO, SAXOPHONE, STRING BASS, TROMBONE, TRUMPET, TUBA, VIOLA, VIOLIN, OR VOICE.

Or a 3 credit hour course in Chemistry, Environmental Science, Geology, Physical Science, Physics, Math, or Computer Science, or Language (Italian, French, or German).

Students must demonstrate functional piano facility, aural skills and satisfactory part-writing and analysis proficiency.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>14</td>
</tr>
</tbody>
</table>

GPA Minimum: 2.0 (Students not maintaining this minimum average may not graduate until an appropriate class or classes are retaken and the minimum average achieved.)

Total Credit Hours 120

Tools for Planning and Fulfilling Academic Requirements

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

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Bachelor of Music in Performance

Emphasis Areas

Students seeking degrees in this program select an emphasis area in:

• Guitar (p. 1610)
• Organ (not currently accepting students) (p. 1613)
• Piano (p. 1616)
• Voice (p. 1619)
• Wind, Strings and Percussion (p. 1622)
Guitar Emphasis Area

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

- Present a solo recital that is correct technically and artistically convincing
- apply the historical and analytical components of music as context for their study and performance
- perform at a high level of musicianship and artistry enabling them to enter a graduate school at a respected institution or a professional performance/teaching career

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I (ANCH 103 recommended)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Anchor II ¹</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Anchor III ¹</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus B ¹</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied by the Constitution course requirement below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus Elective (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ Total credits in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 21

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirements

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”
Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td></td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

### Major Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Musicianship</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSVTY 141</td>
<td>Musicianship I</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 142</td>
<td>Musicianship II</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 241</td>
<td>Musicianship III</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 242</td>
<td>Musicianship IV</td>
<td>4</td>
</tr>
<tr>
<td><strong>Keyboard Skills</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSVTY 110</td>
<td>Keyboard Skills I</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 123</td>
<td>Keyboard Skills II</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 223</td>
<td>Keyboard Skills III</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 310</td>
<td>Keyboard Skills IV</td>
<td>1</td>
</tr>
<tr>
<td><strong>Applied Lessons</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GUITAR 101</td>
<td>Freshman Guitar I</td>
<td>4</td>
</tr>
<tr>
<td>GUITAR 102</td>
<td>Freshman Guitar II</td>
<td>4</td>
</tr>
<tr>
<td>GUITAR 201</td>
<td>Sophomore Guitar I</td>
<td>4</td>
</tr>
<tr>
<td>GUITAR 202</td>
<td>Sophomore Guitar II</td>
<td>4</td>
</tr>
<tr>
<td>GUITAR 301</td>
<td>Junior Guitar I</td>
<td>4</td>
</tr>
<tr>
<td>GUITAR 302</td>
<td>Junior Guitar II</td>
<td>4</td>
</tr>
<tr>
<td>GUITAR 401</td>
<td>Senior Guitar I</td>
<td>4</td>
</tr>
<tr>
<td>GUITAR 402</td>
<td>Senior Guitar II</td>
<td>4</td>
</tr>
<tr>
<td><strong>Studio Class</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GUITAR 300</td>
<td>(enroll with applied lesson each term)</td>
<td></td>
</tr>
<tr>
<td><strong>Music History</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSVTY 351</td>
<td>History of Music in Western Civilization I (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 352</td>
<td>History of Music in Western Civilization II (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Analysis, Orchestration, Conducting, and Counterpoint</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSVTY 331</td>
<td>Orchestration I</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 380</td>
<td>Basic Conducting - Choral</td>
<td>2</td>
</tr>
<tr>
<td>or CONSVTY 381</td>
<td>Basic Conducting - Instrumental</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 390</td>
<td>Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 427</td>
<td>18th Century Counterpoint I</td>
<td>2</td>
</tr>
</tbody>
</table>
### Pedagogy and Performance Styles

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 491D</td>
<td>Pedagogical Practices I Strings</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 492D</td>
<td>Pedagogical Practices II Strings</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 494</td>
<td>Performance Styles</td>
<td>2</td>
</tr>
</tbody>
</table>

### Ensemble

Take two semesters from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 301C</td>
<td>Bella Voce</td>
</tr>
<tr>
<td>CONSVTY 302</td>
<td>Orchestra</td>
</tr>
<tr>
<td>CONSVTY 306A</td>
<td>Conservatory Wind Ensemble</td>
</tr>
<tr>
<td>CONSVTY 306C</td>
<td>Wind Symphony</td>
</tr>
<tr>
<td>CONSVTY 307B</td>
<td>University Singers</td>
</tr>
<tr>
<td>CONSVTY 308A</td>
<td>Conservatory Concert Choir</td>
</tr>
</tbody>
</table>

### Chamber

Take 6 semesters of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 305J</td>
<td>Chamber Music Guitar</td>
</tr>
</tbody>
</table>

### Major Electives

Non-music electives

Total Credits: 92

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

### Minimum GPA: 2.0

Total Credit Hours: 120

### Tools for Planning and Fulfilling Academic Requirements

UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Organ Emphasis Area

UMKC is not currently accepting students into this program.

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

- Present a solo recital that is correct technically and artistically convincing.
- Demonstrate an understanding of (and be able to communicate about) the historical and analytical components of music.
- Develop the diverse skills required for successful careers or continued education as performing and teaching musicians.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
</table>
| Anchor I (ANCH 103 recommended) | 3
| Anchor II ¹       | 3
| Anchor III ¹      | 3
| DISC 100          | Discourse I: Reasoning and Values (Speech and Writing) | 3
| DISC 200          | Discourse II: Culture and Diversity (Writing and Speech) | 3
| DISC 300          | Discourse III: Civic and Community Engagement (Speech and Writing) | 3
| Focus A (Satisfied in program requirements below) | 3
| Focus B ¹         | 3
| Focus C (May be satisfied by the Constitution course requirement below) | 3
| Focus Elective (Satisfied in program requirements below) | 3

"Total credits" in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 21

¹ See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirements

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions."
Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) ¹</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) ¹</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) ¹</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) ¹</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 3

¹ Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelor's degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

**Major Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 141</td>
<td>Musicianship I</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 142</td>
<td>Musicianship II</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 241</td>
<td>Musicianship III</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 242</td>
<td>Musicianship IV</td>
<td>4</td>
</tr>
</tbody>
</table>

**Keyboard Skills**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 110</td>
<td>Keyboard Skills I</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 123</td>
<td>Keyboard Skills II</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 223</td>
<td>Keyboard Skills III</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 310</td>
<td>Keyboard Skills IV</td>
<td>1</td>
</tr>
</tbody>
</table>

**Applied Lessons**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORGAN 101</td>
<td>Freshman Organ I</td>
<td>4</td>
</tr>
<tr>
<td>ORGAN 102</td>
<td>Freshman Organ II</td>
<td>4</td>
</tr>
<tr>
<td>ORGAN 201</td>
<td>Sophomore Organ I</td>
<td>4</td>
</tr>
<tr>
<td>ORGAN 202</td>
<td>Sophomore Organ II</td>
<td>4</td>
</tr>
<tr>
<td>ORGAN 301</td>
<td>Junior Organ I</td>
<td>4</td>
</tr>
<tr>
<td>ORGAN 302</td>
<td>Junior Organ II</td>
<td>4</td>
</tr>
<tr>
<td>ORGAN 401</td>
<td>Senior Organ I</td>
<td>4</td>
</tr>
<tr>
<td>ORGAN 402</td>
<td>Senior Organ II</td>
<td>4</td>
</tr>
</tbody>
</table>

**Studio Class**

ORGAN (enroll with applied lesson each semester)

**Music History and Literature**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 351</td>
<td>History of Music in Western Civilization I (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 352</td>
<td>History of Music in Western Civilization II (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 427</td>
<td>18th-Century Counterpoint</td>
<td>2</td>
</tr>
</tbody>
</table>

**Analysis, Orchestration and Conducting**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 380</td>
<td>Basic Conducting - Choral</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 382</td>
<td>Choral Conducting</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 390</td>
<td>Analysis</td>
<td>3</td>
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</tbody>
</table>
**Ensemble**

Take 8 semesters from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 301C</td>
<td>Bella Voce</td>
</tr>
<tr>
<td>CONSVTY 302</td>
<td>Orchestra</td>
</tr>
<tr>
<td>CONSVTY 305G</td>
<td>Principles Of Chamber Music</td>
</tr>
<tr>
<td>CONSVTY 306A</td>
<td>Conservatory Wind Ensemble</td>
</tr>
<tr>
<td>CONSVTY 306C</td>
<td>Wind Symphony</td>
</tr>
<tr>
<td>CONSVTY 307C</td>
<td>Conservatory Singers</td>
</tr>
<tr>
<td>CONSVTY 308A</td>
<td>Conservatory Concert Choir</td>
</tr>
</tbody>
</table>

**Organ Pedagogy and Literature**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 491C</td>
<td>Pedagogical Practices I Organ</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 460</td>
<td>Organ Literature I</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 469</td>
<td>Organ Literature II</td>
<td>2</td>
</tr>
<tr>
<td>HRPCHD 100B</td>
<td>Applied Study of a Second Instrument</td>
<td>2</td>
</tr>
</tbody>
</table>

**Major Electives**

<table>
<thead>
<tr>
<th>Category</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piano Electives</td>
<td>4</td>
</tr>
<tr>
<td>Music Electives</td>
<td>4</td>
</tr>
<tr>
<td>Non-music Electives</td>
<td>13</td>
</tr>
</tbody>
</table>

**Total Credits**

104

**GPA Minimum:** 2.0

**Total Credit Hours:** 128

---

**Tools for Planning and Fulfilling Academic Requirements**

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

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Piano Emphasis Area

University Requirements

General Education
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Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
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Student Learning Outcomes
Students graduating from this program will:
• Present a solo recital that is correct technically and artistically convincing.
• Demonstrate an understanding of (and be able to communicate about) the historical and analytical components of music.
• Develop the diverse skills required for successful careers or continued education as performing and teaching musicians.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I (ANCH 103 Recommended)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DISC 300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus A</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
<tr>
<td>Focus B</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus C</td>
<td>(May be satisfied by the Constitution Course requirement below)</td>
<td></td>
</tr>
<tr>
<td>Focus Elective</td>
<td>(Satisfied in program requirements below)</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Constitution Course Requirement
Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:
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<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Musicianship</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSVTY 141</td>
<td>Musicianship I</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 142</td>
<td>Musicianship II</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 241</td>
<td>Musicianship III</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 242</td>
<td>Musicianship IV</td>
<td>4</td>
</tr>
<tr>
<td><strong>Keyboard Skills for Piano Majors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSVTY 114</td>
<td>Keyboard Skills I for Piano Majors</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 115</td>
<td>Keyboard Skills II for Piano Majors</td>
<td>1</td>
</tr>
<tr>
<td><strong>Applied Lessons</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PIANO 101</td>
<td>Freshman Piano I</td>
<td>4</td>
</tr>
<tr>
<td>PIANO 102</td>
<td>Freshman Piano II</td>
<td>4</td>
</tr>
<tr>
<td>PIANO 201</td>
<td>Sophomore Piano I</td>
<td>4</td>
</tr>
<tr>
<td>PIANO 202</td>
<td>Sophomore Piano II</td>
<td>4</td>
</tr>
<tr>
<td>PIANO 301</td>
<td>Junior Piano I</td>
<td>4</td>
</tr>
<tr>
<td>PIANO 302</td>
<td>Junior Piano II</td>
<td>4</td>
</tr>
<tr>
<td>PIANO 401</td>
<td>Senior Piano I</td>
<td>4</td>
</tr>
<tr>
<td>PIANO 402</td>
<td>Senior Piano II</td>
<td>4</td>
</tr>
<tr>
<td><strong>Studio Class</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PIANO 300</td>
<td>(enroll with applied lesson each semester)</td>
<td></td>
</tr>
<tr>
<td><strong>Music History</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSVTY 351</td>
<td>History of Music in Western Civilization I (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 352</td>
<td>History of Music in Western Civilization II (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Analysis and Counterpoint</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSVTY 390</td>
<td>Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 427</td>
<td>18th-Century Counterpoint</td>
<td>2</td>
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<tr>
<td><strong>Piano Pedagogy and Literature</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSVTY 325</td>
<td>Piano Pedagogy I</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 325A</td>
<td>Piano Pedagogy · Supervised Teaching I</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 326</td>
<td>Piano Pedagogy II</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 326A</td>
<td>Piano Pedagogy · Supervised Teaching II</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 361</td>
<td>Piano Literature I</td>
<td>3</td>
</tr>
<tr>
<td>Code</td>
<td>Title</td>
<td>Credits</td>
</tr>
<tr>
<td>---------------</td>
<td>------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>CONSVTY 362</td>
<td>Piano Literature II</td>
<td>3</td>
</tr>
<tr>
<td>Collaborative Piano</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSVTY 376</td>
<td>Collaborative Piano I</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 377</td>
<td>Collaborative Piano II</td>
<td>1</td>
</tr>
<tr>
<td>Ensemble¹</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Ensemble/Chamber Ensemble²</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>81</td>
</tr>
</tbody>
</table>

¹ Take four semesters of any combination of CONSVTY 301C, CONSVTY 302, CONSVTY 306A, CONSVTY 306C, CONSVTY 307B, CONSVTY 307C, CONSVTY 308A.
² Take two semesters of any combination of CONSVTY 301C, CONSVTY 302, CONSVTY 306A, CONSVTY 307B, CONSVTY 307C, CONSVTY 307C, CONSVTY 308A or Chamber Ensemble - two semesters of CONSVTY 305G.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>13</td>
</tr>
</tbody>
</table>

GPA Minimum: 2.0

Total Credit Hours: 120

Tools for Planning and Fulfilling Academic Requirements

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

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Voice Emphasis Area

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes

Students graduating from this program will:

- Demonstrate a solid vocal technique and a high level of musicianship and artistry such that the student could be admitted to a graduate program in vocal performance.
- Apply an understanding of style and languages of operatic and art song repertoire.
- Apply historical and theoretical components of music so that they may have a better understanding of and context for their own solo vocal/operatic study and performance.
- Recognize and define all genres, time periods, key composers, forms, and the analytical tools necessary to provide the student with a more holistic view of their repertoire.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I (ANCH 103 Recommended) 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Anchor II 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Anchor III 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus B 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied by the Constitution course requirement below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus Elective (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

‘Total credits’ in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) ¹</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) ¹</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) ¹</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 3

¹ Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

Major Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 141</td>
<td>Musicianship I</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 142</td>
<td>Musicianship II</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 241</td>
<td>Musicianship III</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 242</td>
<td>Musicianship IV</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 110</td>
<td>Keyboard Skills I</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 123</td>
<td>Keyboard Skills II</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 223</td>
<td>Keyboard Skills III</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 310</td>
<td>Keyboard Skills IV</td>
<td>1</td>
</tr>
<tr>
<td>VOICE 101</td>
<td>Freshman Voice I</td>
<td>2</td>
</tr>
<tr>
<td>VOICE 102</td>
<td>Freshman Voice II</td>
<td>2</td>
</tr>
<tr>
<td>VOICE 201</td>
<td>Sophomore Voice I</td>
<td>3</td>
</tr>
<tr>
<td>VOICE 202</td>
<td>Sophomore Voice II</td>
<td>3</td>
</tr>
<tr>
<td>VOICE 301</td>
<td>Junior Voice I</td>
<td>4</td>
</tr>
<tr>
<td>VOICE 302</td>
<td>Junior Voice II</td>
<td>4</td>
</tr>
<tr>
<td>VOICE 401</td>
<td>Senior Voice I</td>
<td>4</td>
</tr>
<tr>
<td>VOICE 402</td>
<td>Senior Voice II</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 351</td>
<td>History of Music in Western Civilization I</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 352</td>
<td>History of Music in Western Civilization II</td>
<td>3</td>
</tr>
</tbody>
</table>

Analysis and Conducting
CONSVTY 380  Basic Conducting - Choral  2
CONSVTY 390  Analysis  3

**Vocal Coaching**

VOICE 411  Vocal Coaching: Voice Recital Preparation (2 semesters)  2

**Opera**

CONSVTY 301E  Opera Theatre Ensemble (2 semesters)  2-4

or CONSVTY 319  Opera Role Performance  2

CONSVTY 319  Opera Role Performance  2

CONSVTY 417  Opera Workshop (2 semesters)  2

CONSVTY 417E  Scene Study (3 semesters)  6

CONSVTY 417F  Opera Role Preparation and Audition Techniques  1

**Diction**

CONSVTY 185B  Foreign Language For Singing II (Italian Diction)  2

CONSVTY 185C  Foreign Language For Singing III (German Diction)  2

CONSVTY 185D  Foreign Language For Singing IV (French Diction)  2

**Vocal Pedagogy and Literature**

CONSVTY 457  Vocal Literature I  2

CONSVTY 458  Vocal Literature II  2

CONSVTY 491B  Pedagogical Practices I Voice  2

**Ensemble**

Any combination of the following courses (8 semesters):  8

CONSVTY 301C  Bella Voce

CONSVTY 307B  University Singers

CONSVTY 307C  Conservatory Singers

CONSVTY 308A  Conservatory Concert Choir

**Foreign Language**

Language (4 semesters)  12

Total Credits  104-106

1  Must take 4 courses in either French, German, or Italian. If two years of one of the required languages have been completed at the high-school level, then the language selected will be one of the other two languages.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0

Total Credit Hours: 129

**Tools for Planning and Fulfilling Academic Requirements**

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Wind, Strings and Percussion Emphasis Area

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

- Present a solo recital that is correct technically and artistically convincing.
- Understand the historical and analytical components of music.
- Perform at a level enabling them to enter a graduate school at a respected institution or a professional performance/teaching career as appropriate.
- Develop competence in the following fundamental performance areas: Technique, Tone, Expression, Intonation and Rhythm.

Program Requirements

Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I (ANCH 103 Recommended) 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Anchor II 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Anchor III 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
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<tr>
<td>DISC 200</td>
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<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus B 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied by the Constitution course requirement below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus Elective (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.
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</tr>
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<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
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</tr>
<tr>
<td>HONORS 230</td>
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</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td></td>
</tr>
</tbody>
</table>

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Major Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 141</td>
<td>Musicianship I</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 142</td>
<td>Musicianship II</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 241</td>
<td>Musicianship III</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 242</td>
<td>Musicianship IV</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 110</td>
<td>Keyboard Skills I</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 123</td>
<td>Keyboard Skills II</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 223</td>
<td>Keyboard Skills III</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 310</td>
<td>Keyboard Skills IV</td>
<td>1</td>
</tr>
</tbody>
</table>

Applied Lessons 1

| Instrument 101 (Freshman Instrument I) | 4 |
| Instrument 102 (Freshman Instrument II) | 4 |
| Instrument 201 (Sophomore Instrument I) | 4 |
| Instrument 202 (Sophomore Instrument II) | 4 |
| Instrument 301 (Junior Instrument I) | 4 |
| Instrument 302 (Junior Instrument II) | 4 |
| Instrument 401 (Senior Instrument I) | 4 |
| Instrument 402 (Senior Instrument II) | 4 |

Studio Class 1

| Instrument 300 (enroll with applied lesson each term) |  |

Music History

| CONSVTY 351 | History of Music in Western Civilization I (Focus A) | 3 |
| CONSVTY 352 | History of Music in Western Civilization II (Focus A) | 3 |

Analysis, Orchestration, and Conducting
Wind, Strings and Percussion Emphasis Area

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 331</td>
<td>Orchestration I</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 381</td>
<td>Basic Conducting - Instrumental</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 390</td>
<td>Analysis</td>
<td>3</td>
</tr>
<tr>
<td><strong>Chamber Music (6 semesters)</strong></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>CONSVTY 305A</td>
<td>Principles Of Chamber Music</td>
<td></td>
</tr>
<tr>
<td><strong>Ensemble</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any combination of the following courses (8 semesters):</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 302</td>
<td>Orchestra</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 306A</td>
<td>Conservatory Wind Ensemble</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 306C</td>
<td>Wind Symphony</td>
<td></td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>87</strong></td>
</tr>
</tbody>
</table>

1 BASSOON, CELLO, CLARINET, Euphonium (EUPHNM), FLUTE, HORN, OBOE, Percussion (PERCSN), Saxophone (SAXOPH), String Bass (STR-BASS), Trombone (TROMB), TRUMPET, TUBA, VIOLA, VIOLIN

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Electives</strong></td>
<td></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0

Total Credit Hours: 120

**Tools for Planning and Fulfilling Academic Requirements**

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Bachelor of Music Education

Application and Audition Requirements

Music Education majors are expected to display those personal characteristics and professional qualities possessed by effective teachers. Applicants audition in their applied performance area and are interviewed by the music education faculty (https://conservatory.umkc.edu/content.cfm?cont=1C2A) to determine their admission to this program.

Applications for admission to the UMKC Conservatory of Music and Dance are reviewed by both the Applied and the Music Education faculties. Applicants must demonstrate facility in their applied performance area and a strong academic record in addition to well-defined attitudes and goals toward music in elementary and secondary education (see fitness-to-teach).

1. Applicants must have an ACT score of 21 or higher, or be at the 50 percentile or higher in the high school class rank, or have a high school grade-point average of 2.50 or better.
2. Applicants may be asked to complete an interview or an online questionnaire related to their interest in the music education program.
3. Applicants who do not achieve these standards (listed above) may be considered for provisional admission, but must meet the standards listed below to progress through the degree with approval of the music education faculty.

Expectations for Degree Progression and Retention

1. Academic/Professional Status

Evaluation of student progress occurs each semester through an audit and advising system in the Music Education Division. In addition, the progress of all students is reviewed at the completion of the junior year by the entire Music Education faculty in order to determine admission to the teacher education track. The Music Education faculty expects music education students to exhibit those characteristics appropriate for effective teaching throughout the program and to maintain good standing, free from academic, disciplinary, or music probation.

1. Maintain the following grade point averages:
   a. Minimum cumulative GPA for all coursework is 2.80.
   b. Minimum cumulative GPA for all music coursework is 3.00.
   c. Minimum cumulative GPA for all musicianship coursework (CONSVTY 141, 142, 241, 242) is 2.75.
   d. All required music courses must be completed with a C or better.
2. Applied Study:
   a. Successfully complete the sequence of applied music lessons (Choral emphasis students must progress through the 302 level, Instrumental emphasis students must progress through the 401 level).
   b. For instrumental (band and orchestra) music education majors: Complete a 30-minute public recital
   c. For choral music education majors: The degree recital in voice is not required.

Professional Readiness Interview

Upon being admitted to the teacher education track, the Conservatory and the School of Education have a process in place to assure that all teacher candidates will be assessed throughout their program according to “Professional Readiness” criteria (the Professional Readiness Checklist/Referral Form is available from the Music Education Faculty). Additional criteria include:

1. Completed criminal background history review.
2. Meeting academic requirements, including scholastic integrity and good communication skills.
3. Exhibiting personal and professional behaviors, such as appropriate social and interpersonal skills and appropriate dress for professional contexts.
4. Demonstrating appropriate cultural and social attitudes and behavior, including respect for diversity and acceptance of and accommodations for exceptional learners.
5. Demonstrating appropriate emotional and cognitive dispositions, such as sound judgment and reflective and analytical thinking.

All teacher candidates will be reviewed routinely according to these established guidelines. Patterns of concern identified in the review may result in a formal review process. Additionally, faculty may choose to refer a teacher education candidate for review at any time. The review process may result in remediation or removal from the Teacher Education program. Candidates referred for review are expected to participate in the process. Refusal to participate will not terminate halt the review process, and refusal and may result in removal form the program.

Any teacher candidate referred for review is afforded due process throughout the review proceedings. Students may submit a formal letter to the dean in response to the proceedings. After all stages of review, a letter of appeal may be submitted to the dean for consideration. The dean's decision is final.
Field Experience and Student Teaching
Undergraduate students participate in a 3-semester sequence of field experiences leading to student teaching. During this sequence, students are assigned to elementary and secondary schools with cooperating teachers who supervise and mentor them. Students continue in the third semester placements for student teaching during their final semester of the degree. Students are placed at one elementary site and one secondary site as required for K-12 certification. One of these sites becomes the primary experience for student teaching (12 weeks) with the other site being an abbreviated experience (5 weeks).

Synthesis and application of all previous coursework and field experiences occurs during student teaching. This emersion experience, under the guidance of a cooperating teacher and a university supervisor, is the culmination of this program. To be eligible for a student teaching assignment, students must meet the following requirements:

1. Satisfy the retention criteria described above.
2. Successfully complete all required coursework except student teaching.
3. Earn passing scores for requisite certification examinations (as specified by the state of Missouri and Kansas).

Students who successfully complete the Bachelor of Music Education degree are eligible for K-12 music certification in Missouri and Kansas.

Double Majors and Extended Certification
Students who have dual aspirations in music education and performance may pursue a double degree with approval from both the performance and music education faculty. Students will work in close consultation with Conservatory faculty and advisors to develop an appropriate curricular map. While much of the foundational coursework in these degrees is the same, an extended time frame for completion of both degrees will be required.

Instrumental Music Education Extended Certification: The Instrumental Music Education extended certification can be added onto the Vocal Music Education major. This is not a major or minor, but an extended certification that meets Missouri teacher certification requirements in instrumental music K-12. Additional course work is required (14 credit hours): Methods/Techniques in strings, brass, woodwinds, and percussion, Applied Major Instrument, Instrumental Ensemble, Advanced Instrumental Conducting, and Instrumentation/Arranging.

Choral Music Education Extended Certification: The Choral Music Education extended certification can be added onto the Instrumental Music Education major. This is not a major or minor, but an extended certification that meets Missouri teacher certification requirements in choral music K-12. Additional course work is required (14 credit hours): Choral Arranging, Applied Voice, Choral Techniques, Advanced Choral Conducting, Choral Literature, Choral Ensemble.

Certification Procedures
Upon completion of the Bachelor of Music Education degree, student transcripts are submitted to the UMKC School of Education for review. Upon successful review, the student is recommended for certification in Missouri and Kansas.

In addition to UMKC coursework and student teaching, all prospective teachers must take and earn a satisfactory score on requisite certification examinations in both Missouri and Kansas.
Bachelor of Music Education - Choral Emphasis Area

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

• Students will complete the MoPTA (Missouri Preservice Teachers Assessment) in conjunction with the final four semesters of their professional sequence including field experience. This project requires students to identify salient and unique aspects of various teaching setting(s), design and execute a teaching unit, show student learning, and provide both formative and summative reflection of the process within these settings. (State mandated for certification)

• Undergraduate students will be able to lead and interact with students in urban and rural classrooms in a manner that engages them in the music learning experience by providing clear verbal and nonverbal instruction, and exhibit appropriate affect demonstrated consistently throughout the professional sequence.

• Undergraduate students will exhibit appropriate professional behaviors throughout the professional sequence and within all field experience activities.

• Undergraduate students will successfully complete 4 diverse semesters of field experience culminating in the completion of the student teaching experience.

• Undergraduate students will acquire teacher certification in both Missouri and Kansas.

The UMKC Conservatory’s Music Educator Preparation Program prepares teachers who demonstrate:

• Solid grounding in all music subject areas enhanced by a strong liberal arts education.

• Substantial skill in music pedagogy.

• A professional and caring commitment to students and to the educational process.

Program goals are based on a set of key principles and express knowledge, skills and dispositions. These goals reflect the current knowledge base of teacher education, and a commitment to prepare educators who will be successful in both contemporary schools and be able to shape the schools of the future.

Program Goals

The emergent music educator:

1. Understands the music subject matter he or she will teach and creates learning experiences that make these aspects of the subject matter meaningful to students.

2. Engages in long range planning and curriculum development and evaluation based upon district, state and national performance standards.

3. Understands how children learn and develop, and provides opportunities that support intellectual, social and personal development.

4. Understands and respects students’ differences and creates instructional opportunities that are adapted to diverse learners.

5. Uses a variety of instructional strategies to encourage learners’ development of critical thinking, problem solving and process skills.
6. Creates a productive learning environment through the use of individual and group motivation that encourages positive social interaction, active engagement in learning, and self-motivation.

7. Models effective communication techniques (verbal, non-verbal, media, etc.) and facilitates student communication, collaboration and supportive interaction in the classroom.

8. Uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, emotional and physical development of the learner.

9. Is a reflective practitioner who continually evaluates the effects of his/her choices and actions on others and actively seeks opportunities to grow professionally.

10. Fosters relationships with school colleagues, parents and educational partners in the larger community to support student learning and well-being.

11. Understands theories and applications of technology in educational settings and uses technological skills to create meaningful learning opportunities for all students.

**Program Specific Recommendations for UMKC General Education Core Coursework**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I (ANCH 103 MUSE recommended)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Anchor II</td>
<td>3</td>
<td></td>
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<tr>
<td>Anchor III</td>
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<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
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<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus B (Satisfied in program requirements below)</td>
<td></td>
<td></td>
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<tr>
<td>Focus C (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus Elective (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 18

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

**Constitution Course Requirement**

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions."

Courses at UMKC that satisfy this state requirement are:

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
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</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) ¹</td>
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</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) ¹</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) ¹</td>
<td></td>
</tr>
</tbody>
</table>

¹ Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

• Take an equivalent course from the list above at a regionally accredited institution.
• Earn credit for one of the above courses through AP, IB, or CLEP.
• Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
• Have a previous bachelors degree (or higher) from a regionally accredited institution.
• Have an Associate of Arts degree from a regionally accredited institution.
• Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.
## Major Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>Musicianship</strong></td>
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</tr>
<tr>
<td>CONSVTY 141</td>
<td>Musicianship I</td>
<td>4</td>
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<tr>
<td>CONSVTY 142</td>
<td>Musicianship II</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 241</td>
<td>Musicianship III</td>
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</tr>
<tr>
<td>CONSVTY 242</td>
<td>Musicianship IV</td>
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</tr>
<tr>
<td><strong>Keyboard Skills</strong></td>
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<tr>
<td>CONSVTY 110</td>
<td>Keyboard Skills I</td>
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</tr>
<tr>
<td>CONSVTY 123</td>
<td>Keyboard Skills II</td>
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<td>CONSVTY 223</td>
<td>Keyboard Skills III</td>
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<tr>
<td>CONSVTY 310</td>
<td>Keyboard Skills IV</td>
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<tr>
<td><strong>Applied Lessons</strong></td>
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<td></td>
</tr>
<tr>
<td>VOICE 101</td>
<td>Freshman Voice I</td>
<td>2</td>
</tr>
<tr>
<td>VOICE 102</td>
<td>Freshman Voice II</td>
<td>2</td>
</tr>
<tr>
<td>VOICE 201</td>
<td>Sophomore Voice I</td>
<td>2</td>
</tr>
<tr>
<td>VOICE 202</td>
<td>Sophomore Voice II</td>
<td>2</td>
</tr>
<tr>
<td>VOICE 301</td>
<td>Junior Voice I</td>
<td>2</td>
</tr>
<tr>
<td>VOICE 302</td>
<td>Junior Voice II</td>
<td>2</td>
</tr>
<tr>
<td>VOICE 300</td>
<td>Studio Class (enroll with applied lesson each semester - 6 semesters)</td>
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</tr>
<tr>
<td><strong>Diction Courses</strong></td>
<td></td>
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</tr>
<tr>
<td>CONSVTY 185B</td>
<td>Foreign Language For Singing II</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 185C</td>
<td>Foreign Language For Singing III</td>
<td>2</td>
</tr>
<tr>
<td>or CONSVTY 185D</td>
<td>Foreign Language For Singing IV</td>
<td></td>
</tr>
<tr>
<td><strong>Music History</strong></td>
<td></td>
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</tr>
<tr>
<td>CONSVTY 351</td>
<td>History of Music in Western Civilization I (Focus A)</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 352</td>
<td>History of Music in Western Civilization II (Focus Elective)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Conducting and Arranging</strong></td>
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<td></td>
</tr>
<tr>
<td>CONSVTY 380</td>
<td>Basic Conducting - Choral</td>
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</tr>
<tr>
<td>CONSVTY 382</td>
<td>Choral Conducting</td>
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</tr>
<tr>
<td>CONSVTY 425A</td>
<td>Arranging for Choral Groups</td>
<td>2</td>
</tr>
<tr>
<td><strong>Field Experiences</strong></td>
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</tr>
<tr>
<td>CONSVTY 411A</td>
<td>Field Experience in Music</td>
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</tr>
<tr>
<td>CONSVTY 411B</td>
<td>Field Experience in Music</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 411C</td>
<td>Field Experience in Music</td>
<td>1</td>
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<tr>
<td><strong>Ensemble Courses</strong></td>
<td></td>
<td></td>
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<tr>
<td>Any combination of the following courses (7 semesters)</td>
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<tr>
<td>CONSVTY 307B</td>
<td>University Singers</td>
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<tr>
<td>CONSVTY 307C</td>
<td>Conservatory Singers</td>
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</tr>
<tr>
<td>CONSVTY 308A</td>
<td>Conservatory Concert Choir</td>
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<tr>
<td><strong>Music Education Courses</strong></td>
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<td></td>
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<tr>
<td>CONSVTY 128</td>
<td>Music Teaching Matters: A Professional Beginning</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 357</td>
<td>Choral Literature</td>
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</tr>
<tr>
<td>CONSVTY 370</td>
<td>Choral/Vocal Techniques</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 373G</td>
<td>Instrumental Techniques Guitar</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 373N</td>
<td>Survey Of Wind And Percussion Instruments</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 373P</td>
<td>Survey Of String Instruments</td>
<td>1</td>
</tr>
<tr>
<td>CONSVTY 385</td>
<td>Elementary Music Methods</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 387</td>
<td>Secondary Music Methods - Choral</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 405</td>
<td>Philosophical and Pragmatic Foundations of Music Education</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 412A</td>
<td>Student Teaching Music in Elementary School</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 412B</td>
<td>Student Teaching Music in Secondary School</td>
<td>4</td>
</tr>
</tbody>
</table>
CONSVTY 437  Computer Literacy for Musicians  1

Physical and Social Sciences
Physical Science Course (Focus B)  1  3
POL-SCI 210  American Government (Focus C + MO Constitution Requirement)  3

Professional Education Courses
EDRD 439  Language & Literacy across the Disciplines  3
TCH-ED 403  Educational Psychology  3
TCH-ED 404  Education of the Exceptional Child and Youth  3
TCH-ED 419  Student Teaching in Elementary School  3
TCH-ED 420  Adolescent Development  3
TCH-ED 437  Student Teaching in High School  3
Total Credits  108

GPA Minimum: 2.0
Total Credit Hours: 126

1  To meet the Focus B requirement, select from - CHEM 115, CHEM 206, CHEM 211, ENV-SCI 110R, ENV-SCI 210, GEOLOGY 220, PHY-SCI 130, PHY-SCI 140, PHY-SCI 150, PHY-SCI 155, PHY-SCI 171, or PHYSICS 210.

Tools for Planning and Fulfilling Academic Requirements
UMKC's Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student's evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC's Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student's officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC's Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Music Education - Instrumental Emphasis Area

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- Undergraduate students will successfully complete 4 diverse semesters of field experience culminating in the completion of the student teaching experience.
- Undergraduate students will acquire teacher certification in both Missouri and Kansas.

Program Specific Recommendations for UMKC General Education Core Coursework

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ANCH 103</td>
<td>ANCH 103 MUSE recommended</td>
<td>3</td>
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<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
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<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
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</tr>
<tr>
<td>Focus A</td>
<td>Focus A (Satisfied in program requirements below)</td>
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</tr>
<tr>
<td>Focus B</td>
<td>Focus B (Satisfied in program requirements below)</td>
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</tr>
<tr>
<td>Focus C</td>
<td>Focus C (Satisfied in program requirements below)</td>
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</tr>
<tr>
<td>Focus Elective</td>
<td>Focus Elective (Satisfied in program requirements below)</td>
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</tr>
</tbody>
</table>

‘Total credits’ in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 18
See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

**Constitution Course Requirement**

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<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
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<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
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<td>HONS 230</td>
<td>Honors American Government (Focus C)</td>
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<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
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</table>

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

**Major Requirements**

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<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>CONSVTY 141</td>
<td>Musicianship I</td>
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<td>CONSVTY 142</td>
<td>Musicianship II</td>
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<td>CONSVTY 241</td>
<td>Musicianship III</td>
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<td>CONSVTY 242</td>
<td>Musicianship IV</td>
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<td>CONSVTY 110</td>
<td>Keyboard Skills I</td>
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<td>CONSVTY 123</td>
<td>Keyboard Skills II</td>
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<td>CONSVTY 223</td>
<td>Keyboard Skills III</td>
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<td>CONSVTY 310</td>
<td>Keyboard Skills IV</td>
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<td>CONSVTY 101C</td>
<td>Voice Class I</td>
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<td>INSTRUMENT 101 Freshman Instrument I</td>
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<td>INSTRUMENT 102 Freshman Instrument II</td>
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<tr>
<td>INSTRUMENT 201 Sophomore Instrument I</td>
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<tr>
<td>INSTRUMENT 202 Sophomore Instrument II</td>
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<tr>
<td>INSTRUMENT 301 Junior Instrument I</td>
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<td>2</td>
</tr>
<tr>
<td>INSTRUMENT 302 Junior Instrument II</td>
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<tr>
<td>INSTRUMENT 401 Senior Instrument I</td>
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</tr>
<tr>
<td>CONSVTY 300 Studio (enroll with applied lesson each semester - 7 semesters)</td>
<td></td>
<td></td>
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<tr>
<td>CONSVTY 238</td>
<td>Woodwind Techniques and Pedagogy</td>
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<tr>
<td>CONSVTY 239</td>
<td>Brass Techniques and Pedagogy</td>
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<tr>
<td>CONSVTY 373E</td>
<td>Instrumental Techniques Percussion</td>
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<tr>
<td>CONSVTY 373G</td>
<td>Instrumental Techniques Guitar</td>
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<td>Course Code</td>
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<tr>
<td>CONSVTY 373N</td>
<td>Survey Of Wind And Percussion Instruments</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 373P</td>
<td>Survey Of String Instruments</td>
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</tr>
<tr>
<td><strong>Music History</strong></td>
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<tr>
<td>CONSVTY 351</td>
<td>History of Music in Western Civilization I (Focus A)</td>
<td>3</td>
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<tr>
<td>CONSVTY 352</td>
<td>History of Music in Western Civilization II (Focus Elective)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Conducting and Arranging</strong></td>
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<tr>
<td>CONSVTY 381</td>
<td>Basic Conducting - Instrumental</td>
<td>2</td>
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<tr>
<td>CONSVTY 383</td>
<td>Instrumental Conducting</td>
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<tr>
<td>CONSVTY 331</td>
<td>Orchestration I</td>
<td>2</td>
</tr>
<tr>
<td>or CONSVTY 425B</td>
<td>Arranging Instrumental</td>
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</tr>
<tr>
<td><strong>Field Experiences</strong></td>
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<td></td>
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<tr>
<td>CONSVTY 411A</td>
<td>Field Experience in Music</td>
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<tr>
<td>CONSVTY 411B</td>
<td>Field Experience in Music</td>
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<tr>
<td>CONSVTY 411C</td>
<td>Field Experience in Music</td>
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<tr>
<td><strong>Ensemble Courses</strong></td>
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<tr>
<td>Any combination of the following courses (7 semesters)</td>
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<tr>
<td>CONSVTY 302</td>
<td>Orchestra</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 306A</td>
<td>Conservatory Wind Ensemble</td>
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</tr>
<tr>
<td>CONSVTY 306C</td>
<td>Wind Symphony</td>
<td></td>
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<tr>
<td><strong>Specialization - Winds/Brass/Percussion OR Strings</strong></td>
<td></td>
<td>5</td>
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<tr>
<td>CONSVTY 270</td>
<td>Marching Band &amp; Jazz Ensemble Techniques (Winds/Brass/Percussion Only)</td>
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<tr>
<td>CONSVTY 358</td>
<td>Wind Band Literature and Lab (Winds/Brass/Percussion Only)</td>
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</tr>
<tr>
<td>INSTRUMENT100B</td>
<td>Second Applied Strings Instrument (Strings Only)</td>
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<tr>
<td>CONSVTY 359</td>
<td>String Literature (Strings Only)</td>
<td></td>
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<tr>
<td><strong>Music Education Courses</strong></td>
<td></td>
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<tr>
<td>CONSVTY 128</td>
<td>Music Teaching Matters: A Professional Beginning</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 378</td>
<td>Instrumental Ensemble Rehearsal Techniques &amp; Lab</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 378L</td>
<td>Instrumental Ensemble Rehearsal Lab</td>
<td>1</td>
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<tr>
<td>CONSVTY 385</td>
<td>Elementary Music Methods</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 386</td>
<td>Secondary Music Methods - Instrumental</td>
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<tr>
<td>CONSVTY 405</td>
<td>Philosophical and Pragmatic Foundations of Music Education</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 412A</td>
<td>Student Teaching Music in Elementary School</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 412B</td>
<td>Student Teaching Music in Secondary School</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 437</td>
<td>Computer Literacy for Musicians</td>
<td>1</td>
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<tr>
<td><strong>Physical and Social Sciences</strong></td>
<td></td>
<td></td>
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<tr>
<td>Physical Science Course (Focus B)</td>
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<td>3</td>
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<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C + MO Constitution Requirement)</td>
<td>3</td>
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<tr>
<td><strong>Professional Education Courses</strong></td>
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<tr>
<td>TCH-ED 403</td>
<td>Educational Psychology</td>
<td>3</td>
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<tr>
<td>TCH-ED 404</td>
<td>Education of the Exceptional Child and Youth</td>
<td>3</td>
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<tr>
<td>TCH-ED 419</td>
<td>Student Teaching in Elementary School</td>
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</tr>
<tr>
<td>TCH-ED 420</td>
<td>Adolescent Development</td>
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<tr>
<td>TCH-ED 427</td>
<td>Reading in the Secondary School</td>
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<tr>
<td>TCH-ED 437</td>
<td>Student Teaching in High School</td>
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<tr>
<td><strong>Total Credits</strong></td>
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</table>

GPA Minimum: 2.0

Total Credit Hours: 138

1 List of instrument specific course numbers for studio courses and applied lessons (p. 1543)
Tools for Planning and Filling Academic Requirements

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Conservatory of Music and Dance - Undergraduate Policies

Conservatory Policy Statements (Undergraduate)

Revised 2/11/15 (SMC)

Adopted by the faculty 4/7/15

Course Repetition Policy

1. A Conservatory student may retake a Conservatory course only once without approval unless that course is designed to be repeatable for credit (e.g. Ensemble).
2. If the student fails to meet minimum grade standards for a second time, a petition may be filed with the Associate Dean of Undergraduate Studies requesting a third and final attempt.
3. If a third attempt is granted and is unsuccessful the student may be dismissed from the program.

*(Minimum grade criteria for Conservatory courses can be found in the Undergraduate Catalog)*

Late Drop Policy

UMKC policy:

• Eligible students may withdraw from their classes during the withdraw schedule period that is provided in the Academic Calendar. After the fourth week through the eighth week students will receive an automatic W on their transcript.
• After the eighth week, students will be assessed academically and, if they are failing at the time of withdrawal, they will be given a grade of WF (withdrawn failing) at the discretion of the faculty member. A WF is not calculated in the grade-point average.
• After the twelfth week students must petition their home academic unit before being allowed to withdraw from a course. Students who want to withdraw from all of their classes must follow the Total (“term”) Withdraw Policy

Conservatory Policy:

1. The Conservatory will follow the UMKC policy for late drops.
2. Approval for dropping after the twelfth week will be given only when there are extenuating circumstances, such as illness or injury. Approval will not be granted due to dissatisfaction with the grade.
3. A petition must be submitted to the Associate Dean responsible for undergraduate studies no later than the 14th week of the semester.
4. Dropping courses could adversely affect a student’s Conservatory scholarship eligibility.

Retroactive Add Policy

1. Under normal circumstances, a student will not be allowed to add courses retroactively.
2. If there are extenuating circumstances, a petition form requesting a retroactive add may be submitted to the Associate Dean of Undergraduate Studies.

Graduation “Walking” Policy

A student that has applied for graduation and has 6 or less credits to complete by the end of that semester may walk in the commencement ceremony under the following conditions:

1. The student is in good academic standing.
2. The student has successfully satisfied the Roo Writer requirement (http://catalog.umkc.edu/undergraduate-academic-regulations-information/graduation/roowriter).
3. The student has successfully satisfied the Constitution requirement (p. 2341).
4. The student has made a commitment to complete the remaining credit hours by the following semester (unless courses needed are not offered until the subsequent semester)*.
   a. Failure to enroll for that semester by two weeks prior to the commencement ceremony will result in a revoking of the walking privileges.
   b. *Music Therapy Students - Once enrolled in CONS 410 (Internship), have a maximum of two semesters to complete the course.
Graduate Programs

General Information

The Conservatory of Music and Dance offers graduate programs leading to the following degrees: master of arts in music; master of arts in music (music therapy emphasis); master of music in music composition, conducting, musicology, music theory and performance; master of music education; and doctorate of musical arts in music composition, conducting and performance. The Conservatory participates in the Interdisciplinary Ph.D program (http://sgs.umkc.edu/interdisciplinary-ph-d-studies-at-umkc) for students who desire music education as their coordinating discipline and education as a co-discipline. Graduate students in the Conservatory are also subject to the regulations, listed in the General Graduate Academic Regulations and Information (p. 1189)section of this catalog.

Admission Requirements

Admission to the Conservatory of Music and Dance does not constitute an approval of major. Graduate students attending the Conservatory of Music and Dance do not have a major until divisional requirements are met and an approved planned program of study is filed.

Requirements for Admission

All students applying for admission must:

- Complete an application for admission.
- Submit transcripts of all prior work.
- Possess a minimum overall grade-point average of 3.0 for all prior coursework.
- Perform an applied audition, the purpose of which is diagnostic only, except as indicated in certain divisional standards.

Meet admission standards listed below:

- Choral Conducting
  - Master’s and doctoral degrees: live interview/choral conducting students are required to audition before enrolling in applied lessons, but may be admitted without an applied audition.
- Orchestral/Wind Conducting
  - Master’s and doctoral degrees: live interview/applied audition.
- Master of Arts
  - Achieve the level of (APPLIED INSTRUMENT) 302 at the audition or submit area of concentration approval form.
- Music Composition
  - Master’s and doctoral degrees: submit portfolio of compositions for evaluation.
- Music Education
  - Master’s degree: document completion of a bachelor’s degree in music education or the equivalent/have an acceptable interview with faculty from this discipline/provide evidence of musical proficiencies applicable to music education settings.
- Musicology
  - Master’s degree:
    i Possess a bachelor’s degree in music.
    ii Possess a minimum grade-point average of 3.0 in undergraduate music history courses.
    iii Submit examples of writing. (The writing sample should be either 1) a research paper on some aspect of the major field - can be an earlier term paper from the baccalaureate degree or 2) a senior project from the baccalaureate degree.)
    iv Possess reading knowledge in at least one language other than English.
- Music Theory
  - Master’s degree:
    i Possess a bachelor’s degree in music theory or the equivalent.
    ii Possess a minimum grade-point average of 3.0 in undergraduate music theory courses.
    iii Submit examples of writing.
    iv Translate a selection into English from either French or German using a dictionary.
- Music Therapy
  - Master’s degree:
    1. Possess a bachelor’s degree in music therapy from an NASM-accredited or the equivalent institution with a 3.0 GPA or better and have current CBMT Professional status, OR (b) Possess a bachelor’s degree in music or music education from an NASM-accredited or the equivalent institution with a 3.0 GPA or better.
    2. Students who do not have the appropriate music therapy professional status will take coursework that covers undergraduate music therapy requirements.
3. An audition in the student's applied area is required for diagnostic and prescriptive purposes for those not having current music therapy professional status.

4. A simulation of music therapy clinical skills is required for those entering with music therapy professional status.

5. A successful interview with the music therapy faculty is also required for admittance.

**Performance**
- Master’s degree: achieve (APPLIED INSTRUMENT) 5501 level on the major instrument at the audition.
- Doctoral degree: achieve (APPLIED INSTRUMENT) 5601 on the major instrument at the audition.

**Performer’s Certificate**
- Possess a bachelor’s degree in music.
- Achieve (APPLIED INSTRUMENT) 5501 at the audition.
- Interview with faculty/coaches in the applied area.
- Submit a standard resume including performance experiences.

**Artist’s Certificate**
- Possess a master's degree in music or the appropriate equivalent as determined by applied faculty in the area.
- Achieve (APPLIED INSTRUMENT) 5601 at the audition.
- Interview with faculty/coaches in the applied area.
- Submit a standard resume including performance experiences.

**Matriculation Examination**
The matriculation exam applies to all students whose degree program requires a 5500-level music history and/or music theory class. The matriculation examination in dictation, music theory and music history must be completed by students before enrolling for the term of admission. Students must pass all sections of the exam or complete review courses (421A/B, 422A/B/C with a grade of B- or higher) before enrolling in 5500-level theory and history courses.

Students in the MM in Performance: Vocal Emphasis must demonstrate proficiency in Italian, German, and French lyric diction.

The matriculation exam in dictation, music theory and music history must be completed by all MME students before enrolling for the term of admission. Students must earn competency level in music theory to demonstrate readiness to enroll in CONSVTY 5591G Pedagogy of Music Theory or successfully complete the requisite theory review courses (CONSVTY 421A/B) with a grade of B- or higher prior to enrolling. Music history exam results will be advisory only and not result in any required coursework in music history. Students wishing to enroll in a graduate course in music history as an elective will be required to demonstrate readiness to enroll either by exam or by successful completion of requisite history review courses (CONSVTY 422A/B/C) with a grade of B- or higher.

**Graduate Assistantships, Fellowships and Scholarships**
Graduate assistantships are available with stipends varying for the academic year depending upon assignment. Assistantships are available in accompanying, assessment, conducting, instrumental ensembles, jazz and studio music, keyboard skills, music appreciation, music composition, music education, musicology, music theory, percussion, pep band, piano, saxophone, recording/lighting, stage management and voice. Recipients are typically expected to devote 10 hours a week (more for appointments above the .25 level) in assigned duties. Applicants for assistantships should have and maintain a minimum 3.0 (B) grade-point average.

Students who wish to apply for assistantships or fellowships should visit Conservatory Admissions (http://conservatory.umkc.edu/content.cfm?cont=%22%27RX%20%0A) for application materials and a list of current positions. Applications must be submitted by March 1. Awards will be made by April 1, and a letter of acceptance or rejection sent to the applicant by April 15. Awarding a graduate assistantship is contingent upon admission.

For information concerning assistantships, fellowships and other forms of student financial aid and scholarships, contact the Conservatory Admissions Office
(816) 235-2932
cadmissions@umkc.edu

and the

Financial Aid and Scholarships Office
University of Missouri-Kansas City
5115 Oak St.
Kansas City, MO 64110-2499
http://www.sfa.umkc.edu
Degree Requirements

Retention and Minimum Grades
Conservatory graduate students must maintain a 3.0 graduate grade-point average in order to remain in good standing. A maximum of two courses not exceeding three hours of credit in each course at the 5500 or 5600 level in which C’s are received shall be acceptable for the planned program of any advanced degree. No grade lower than a 3.0 (B) is acceptable in the major field.

Ensemble Requirements
All graduate students in the master of music and doctor of musical arts performance degree programs must enroll in Conservatory Wind Ensemble, Conservatory Wind Symphony or Conservatory Orchestra for a minimum of two semesters if their major instrument is an orchestral instrument. Master of music students in vocal performance must participate in Bella Voice, Conservatory Concert Choir or Conservatory Singers for a minimum of two semesters.

All graduate students in the doctor of musical arts conducting degree program are required to participate in at least one major ensemble, as advised by the conducting faculty, during each term of enrollment as a full-time student.

Foreign Language Proficiency Requirements
Master’s students in musicology and theory, as well as doctoral students in choral and orchestral conducting and keyboard and vocal performance must satisfy language requirements for the degree.

For all M.M. students in Musicology, a grade of B- (2.7) or better in a first-semester, sophomore-level foreign language course is required. Students must study French, German or Italian unless the substitution of another language is approved by the supervisory committee. A language proficiency test may be substituted for course requirements, provided it documents language capabilities equivalent to the completion of a first-semester, sophomore-level, course. This must be approved in advance by the supervisory committee. In such cases, a letter describing the process and results must be forwarded to the chair of the supervisory committee, the musicology area coordinator, and the Conservatory Associate Dean for Graduate Studies.

For master’s students in theory as well as doctoral students in choral and orchestral conducting and keyboard and vocal performance who speak English as their first language, a grade of B- (2.7) or better in a first-semester, sophomore-level foreign language course or C (2.0) work or better in each of two junior-level courses or in one senior-level literature or civilization course is viewed as an adequate demonstration of foreign language skills. Students must study French, German or Italian unless the substitution of another language is approved by a minimum of two-thirds of the supervisory committee. A language proficiency test, if provided by language instructors or departments, may be substituted for course requirements provided it documents language capabilities equivalent to the previously described courses. In such cases, a letter from the university language professor, describing the process and results, must be forwarded to the Conservatory Associate Dean for Graduate Studies. Doctoral students in choral and orchestral conducting or keyboard and vocal performance who speak English as a second language must achieve a score of 600 on the TOEFL exam. If students have not completed a TOEFL exam with a score greater than 600 before arriving at UMKC, they must complete a language test in English provided by UMKC’s Applied Language Institute. All courses recommended by ALI must be successfully completed and a score of 600 on the TOEFL, or the equivalent as determined by ALI must be achieved. This policy applies to all ESL students regardless of the number of years they have studied in the United States.

The DMA in Music Composition, DMA in Instrumental Performance and DMA in Wind Conducting programs do not have a foreign language requirement.
Doctor of Musical Arts

Program Requirements

Ordinarily, doctor of musical arts candidates will be expected to show from 75 to 90 hours of approved coursework beyond the bachelor’s degree (including the master’s degree) on their planned programs. Approximately 80 percent of the coursework on the planned program must be at the graduate level (5500-5600).

If it is of acceptable quality and appropriate to the student’s program, graduate credit not to exceed more than one-half the total credit earned beyond the bachelor’s degree may be transferred from another institution to a doctoral program. Except for courses included in the earned master’s degree, work done at institutions other than UMKC must have been completed within nine years of the awarding of the degree. A D.M.A. or Ph.D. student must take and pass the doctoral comprehensive examination and advance to candidacy within five years from the beginning of doctoral coursework (within four years if entering with a master’s degree in the same or closely related field). After the establishment of degree candidacy, a maximum of five years will be allowed for completion of degree requirements. D.M.A. students in conducting and performance must demonstrate proficiency in one foreign language. All D.M.A. students must satisfy the residency requirement. Residency for the D.M.A. cannot begin until the first term of enrollment as a D.M.A. student at the Conservatory. The residency requirement for the D.M.A. may be satisfied in any one of the following ways: 1) two adjacent semesters with a minimum of nine hours each, or 2) one semester with a minimum of nine hours and two summer sessions with a minimum of five hours each, provided that the full-time semester is adjacent to one of the summer sessions [it is expected that the summer sessions will be consecutive], or 3) completion of 24 hours within 18 consecutive months.

The Supervisory Committee

The supervisory committee for students seeking the doctor of musical arts shall consist of three faculty members who will approve the planned program of study and the doctoral research plan, and agree to serve as the three faculty responsible for writing and grading the major portion of the doctoral comprehensive examination.

Comprehensive Examinations

The Comprehensive Examinations consist of three separate exams.

First Exam Procedures

The First Exam focuses on Music History and Theory and is designed to assess students’ foundational knowledge for advanced study. The exams will be given the seventh Saturday of the spring semester and students will take the exam in their second full year of coursework following successful completion of the Examination Document. The exams will consist of two three-hour sections that cover an integrated application of ideas from music history and music theory and will be designed, proctored, and graded by all fulltime faculty members holding degrees in those two areas. Based on the collective recommendation of the faculty, students will be assigned a grade of high pass, pass, or fail for each section of the exam. Students who fail to pass any portion of the exam will be given feedback as to the recommended courses needed to make up any deficiencies in their third year of coursework and will be allowed to retake those portions the following year. Students are allowed to retake portions of the exam they failed one time and must fully pass the First Exam to be eligible to take the Second Exam and continue to candidacy.

Second Exam Procedures

The Second Exam tests students' understanding of their chosen field of study and are required for advancement to candidacy. These exams are held the fifth week of both the Fall and Winter/Spring semesters and must be taken after the end of coursework and before work begins on doctoral projects. Students wishing to take the exams should notify their committee chair of their intentions and submit a complete Comprehensive Exam Request Form to the graduate advising office by at least the last week of classes the semester before they take the exam. Testing is proctored from 9:00 until 5:00 each day of that week, and students are responsible for arranging their schedules and signing up for the times in which they plan to take the test.

The Second Exam is administered by a D.M.A Committee made up of a faculty chair and two other faculty members. Students are responsible for selecting their chairs, who normally will be the principle instructor or director of research, and then the remainder of their committee in consultation with the chair. The committee members are communicated to the advising office through signatures on the Comprehensive Exam Request Form.

Each D.M.A. student is given eight hours in which to answer questions submitted by the three members of his or her committee. Each member of the committee must contribute to the Second Exam, and while the number of hours for questions given to each member is at the chair’s discretion, typical practice is four hours for the chair and two hours for each member (Each “hour” of questions should take approximately one hour to complete). Committee members must submit their questions to the chair by the Wednesday of the third week of the semester. The chair then submits the entire exam to the Comprehensive Exam Coordinator by the end of the third week of the semester. It is the chair’s responsibility in consultation with the committee to ensure that there are no overlaps in questions and that the exam adequately examines the field of study. Content of the examination questions should reflect the content of study specific to each student’s degree. Members of the D.M.A. Committee are responsible for determining the appropriate focus for questions. Those questions should not function as a retesting of course information, but as an assessment of a student’s understanding and ability to connect and apply course content more broadly.
**Grading for the Second Exam**

Once a student has completed the exam, the Comprehensive Exam Coordinator distributes written responses to the faculty responsible for each question. That faculty member grades the responses and relays their recommendation of high pass, pass, or fail to the committee chair and the Comprehensive Exam Coordinator. Students must receive a grade of pass or high pass on each question to pass the Second Exam and advance to candidacy. Students are allowed to retake portions of the exam they failed one time, and the format of that retest is at the discretion of the committee member responsible for the question.

**Third Exam Procedures**

At the conclusion of all doctoral points needed for the D.M.A. degree and contingent upon successful completion of the Second Exam, members of the student’s D.M.A. Committee will reconvene for a two-hour oral defense of the work done during candidacy for the degree. In the case of areas that require dissertations, the dissertation defense acts as the Third Exam. For all other areas, the Third Exam is expected to consist of questions synthesizing the student’s work in all areas of study in their doctoral documents and/or performances. The Committee Chair will schedule the Third Exam, which may be postponed at the Chair’s discretion. The Third Exam is the last step in the conferral of D.M.A degrees.

**DMA Research / Artistic Applications**

4 points required

DMA Research

Dissertation (4 hrs/4 points)

CONS 5699 – Supervised by five committee members, graded by major professor, reviewed by university, paper filed in library.

All students in the DMA program in Composition must complete a dissertation to satisfy degree requirements. This usually takes the form of an extended composition in a format approved by the composition faculty. Students in the DMA Conducting and DMA Performance programs may choose to satisfy degree requirements pertaining to doctoral research by writing a dissertation (other options for Conducting and Performance majors are described in the next section).

**Other Doctoral Research Options**

DMA students in Conducting and Performance may choose to satisfy doctoral research requirements through projects other than the dissertation. Five (5) options are currently offered. They include support papers for recitals, extended research papers, additional courses in research methodology, music products that might include compositions, arrangements, or performance editions, and, finally, an additional recital. Students must complete four “points” of research credit to fulfill the doctoral research requirement. These points can come from almost any combination of the five categories or, in some cases, can come from a single category. Projects can be initiated at any point during the program of study but at least one project reflecting the student’s ability to work independently must be completed after comprehensive exams are passed. Students must complete a DMA Research Applications Proposal (available from the Graduate Advising Office) and gather the signatures of the appropriate project supervisors as well as the supervisory committee. This document should be submitted to the Graduate Advising Office before in-depth research is begun.

Specifics for each doctoral research option are outlined hereafter:

**Doctoral Recital Support Paper**

(worth 1 point apiece; maximum of two points from this category for conducting majors and three for performance majors) [CONS 5697P for Performance majors; CONS 5697BP for Conducting majors]

The Recital support paper should be approximately 25-50 pages in length. It should address some aspect of the recital such as unusual pedaling specifications in a piece, biographical information about the composers, unusual aspects of performance practice, aspects pertaining to the form of the pieces, etc. The paper is supervised and graded by the student’s applied teacher, assuming that the faculty member holds some type of graduate faculty status. A copy of the final paper should be submitted for the student file.

**Doctoral Research Problems**

(worth 2 points apiece; students may do one or two projects from this category) [CONS 5698]

The Doctoral research paper should be approximately 50-75 pages in length. It may address any aspect of interest to the student and supervisor. Examples might include an extensive analysis of compositions by a single composer, literature dealing with performance anxiety, an analysis of a particular genre in a designated time period, etc. The doctoral research paper can be an extensive review of literature. The paper can be supervised and graded by any willing faculty member holding some type of graduate faculty status. A copy of the final paper should be submitted for the student file.

**Additional Research Courses**

(worth 1 point for each 3 credit hour course; students may take a maximum of two courses for doctoral research credit) [e.g., CONS 5594A and B]

The Conservatory requires CONS 5593 Introduction to Research and Bibliography for the DMA degree. Any course beyond CONS 5593 that specifically addresses research methodology as its primary focus may be considered for credit in this category. The Conservatory offers three courses, which may be taken for credit including Advanced Research and Bibliography (CONS 5693), Introduction to Descriptive and Experimental Research in Music (CONS 5594A) and Advanced Descriptive and Experimental Research in Music (CONS 5594B). Courses from other UMKC departments could also be
considered. Courses that include research but do not specifically focus on methodology can not be included in this category. Students completing 2 points from this category must combine the additional research courses with a Doctoral Research Problems project (CONS 5698).

**Doctoral Music Product**
(credit is variable from 1-4 points depending on the length and complexity of the product; students may do 1-4 projects from this category) [CONS 5698B]

While the dissertation, doctoral recital paper, doctoral research problem, and to some extent the additional research course, will deal with "traditional" research expressed in standard writing formats, the doctoral music product allows a student to create through the medium of music. Products can take the form of original compositions, arrangements or transcriptions of music, or the creation of performance editions of existing works. The pieces should include a bibliography of sources consulted while developing the product and an analysis of the work recognizing specific performance or rehearsal challenges. The scope of the product, including the amount of credit to be awarded for the project, is developed in consultation with the supervisory committee. The project is supervised and graded by an appropriate, willing faculty member with some type of graduate faculty status. If composition faculty are to serve as supervisors for a project, certain prerequisite skills or classes may be required. A copy of the final music product with documentation should be submitted for the student file.

**Additional Recital**
(maximum of 1 point from this category) [CONS 5697C]

The extra recital is supervised by the applied or conducting teacher. The recital is graded in the same manner as other recitals for the Conducting and Performance degrees.
Artist's Certificate Required Courses

Student Learning Outcomes

Instrumental
1. To present three public performances that exhibit the highest degree of instrumental/vocal competence and artistry.
2. To gain broad experience in a significant amount of repertoire.
3. To present a business plan that assists their career plan.
4. To make contacts with people in the music world who can help them in their career.

Keyboard
1. To present three public performances that exhibit the highest degree of instrumental/vocal competence and artistry.
2. To demonstrate proficiency in a significant amount of repertoire.
3. To present a business plan that assists their career plan.
4. To make contacts with people in the music world who can help them in their career, and demonstrate an understanding of the principles of effective professional networking.

Voice
1. To present three public performances that exhibit the highest degree of instrumental/vocal competence and artistry.
2. To gain broad experience in a significant amount of repertoire.
3. To present a business plan that assists their career plan.
4. To make contacts with people in the music world who can help them in their career.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lessons and Recitals (Solo Experiences) ¹</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Electives ²</td>
<td>13</td>
</tr>
<tr>
<td>Total Credits: 29 (minimum)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ Instrumental Students - Lessons = 4 hours, recitals = 12 hours; Piano Students - Lessons = 4 hours, recitals = 12 hours. One recital must include a complete concerto accompanied by second piano, and one recital must include at least one major chamber work. Voice Students - Lessons = four hours, recitals, opera roles, and/or oratorio roles = 12 hours.

² Instrumental Students - Students must enroll in one large ensemble and one chamber ensemble each semester; Keyboard Students - Chamber music, literature and pedagogy courses are recommended; Voice Students - Opera workshop, vocal literature, history of opera, vocal pedagogy, related arts courses in theater and art, as well as independent study experiences in language and performance are recommended.

³ Voice students - Will enroll in Vocal Coaching concurrently with lessons and recitals.

Note: Voice students must pass the diction proficiency test in French, German and Italian.
Doctor of Musical Arts in Conducting Required Courses

Student Learning Outcomes

Students graduating from this program will:

• To conduct public concerts or recitals that demonstrate a superior level of artistry and technique.
• To understand and be able to communicate the historical and analytical components of music.
• To reflect on broader dimensions of their own musical experience.
• To be familiar with advanced research resources in music.
• To demonstrate a strong command of repertory.

Choral Interest Area

Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music History (three courses required) ¹</td>
<td>9</td>
</tr>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music Theory (three courses required)</td>
<td>9</td>
</tr>
<tr>
<td>CONSVTY 5593</td>
<td>Introduction To Research And Bibliography In Music</td>
<td>3</td>
</tr>
<tr>
<td>Take the following course 6 times:</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>CONSVTY 5582A</td>
<td>Advanced Choral Conducting - Technique</td>
<td></td>
</tr>
<tr>
<td>or CONSVTY 5582B</td>
<td>Advanced Choral Conducting - Style</td>
<td></td>
</tr>
<tr>
<td>or CONSVTY 5582C</td>
<td>Advanced Choral Conducting-Rehearsal Techniques</td>
<td></td>
</tr>
<tr>
<td>Take the following course 4 times:</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>CONSVTY 5587</td>
<td>Seminar In Choral Literature</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 5697B</td>
<td>Doctoral Conducting Performance</td>
<td>6</td>
</tr>
<tr>
<td>Select four &quot;research points&quot; from the following:</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 5697</td>
<td>Doctoral Recital</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 5698</td>
<td>Research Problems</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 5699</td>
<td>Dissertation Research</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 51 (minimum)

¹ All doctoral students are required to complete three graduate music history courses. One must be a period course (CONSVTY 5555-CONSVTY 5559B), one must be a seminar course, and the remaining course may be either. Any substitutions must be approved by the music history faculty.

² Conducting recitals may be done with the approval of the major faculty advisor at any time after successful completion of the Graduate Approval of Major. Two public performances with supporting documents are required for the degree.

³ A minimum of one doctoral research project, exhibiting the highest level of independence, must be finished after comprehensive examinations are successfully completed. Two rehearsal/lecture demonstrations must be completed. Participation in at least one major ensemble, as advised by the conducting faculty, during each term of enrollment as a full-time student is required.

Language Requirement

A proficiency in one foreign language is required. See this section (p. 1636) of the catalog for options.

Orchestral Interest Area

Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music History (three courses required) ²</td>
<td>9</td>
</tr>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music Theory (three courses required)</td>
<td>9</td>
</tr>
<tr>
<td>CONSVTY 5593</td>
<td>Introduction To Research And Bibliography In Music</td>
<td>3</td>
</tr>
<tr>
<td>Take 3 semesters of either of the following courses:</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>CONSVTY 5583A</td>
<td>Advanced Instrumental Conducting</td>
<td></td>
</tr>
<tr>
<td>or CONSVTY 5583B</td>
<td>Advanced Instrumental Conducting - Orchestra</td>
<td></td>
</tr>
<tr>
<td>Take the following course 3 times:</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>CONSVTY 5586A</td>
<td>Seminar In Orchestral Literature</td>
<td></td>
</tr>
</tbody>
</table>
Doctor of Musical Arts in Conducting

Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5582A</td>
<td>Advanced Choral Conducting - Technique</td>
<td>2</td>
</tr>
<tr>
<td>or CONSVTY 5582B</td>
<td>Advanced Choral Conducting - Style</td>
<td></td>
</tr>
<tr>
<td>or CONSVTY 5582C</td>
<td>Advanced Choral Conducting-Rehearsal Techniques</td>
<td></td>
</tr>
</tbody>
</table>

Applied Music (APPLIED INSTRUMENT) 5500A

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5697B</td>
<td>Doctoral Conducting Performance</td>
<td>3</td>
</tr>
</tbody>
</table>

Select four "research points" from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5697</td>
<td>Doctoral Recital</td>
</tr>
<tr>
<td>CONSVTY 5698</td>
<td>Research Problems</td>
</tr>
<tr>
<td>CONSVTY 5699</td>
<td>Dissertation Research</td>
</tr>
</tbody>
</table>

Total Credits: 50 (minimum)

1 Each Doctor of Musical Arts Conducting student in the Orchestral interest area must audition for placement with the applied faculty on their primary instrument. Applicants who are placed at the 5601 level on their applied instrument will not be required to complete additional studies on that instrument. If the applicant qualifies for applied music at the 5500A level, a minimum of two credit hours of 5500A is required. If the applicant does not qualify for applied music at the 5500A level, then the student must enroll in applied music until completion of the 5500A level or until graduation. Orchestral conducting majors are also required to enroll in at least two additional semesters of applied study as advised by their major professor.

2 All doctoral students are required to complete three graduate music history courses. One must be a period course (CONSVTY 5555 - CONSVTY 5559B), one must be a seminar course, and the remaining course may be either. Any substitutions must be approved by the music history faculty.

3 Conducting recitals may be done with the approval of the major faculty advisor at any time after successful completion of the Graduate Approval of Major. Two public performances with supporting documents are required for the degree.

4 A minimum of one doctoral research project, exhibiting the highest level of independence, must be finished after comprehensive examinations are successfully completed. Two rehearsal/lecture demonstrations must be completed. Participation in at least one major ensemble, as advised by the conducting faculty, during each term of enrollment as a full-time student is required.

Language Requirement

A proficiency in one foreign language is required. See this section (p. 1636) of the catalog for options.

Wind Interest Area

Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5593</td>
<td>Introduction To Research And Bibliography In Music</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music History (three required)</td>
<td>9</td>
</tr>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music Theory (three required)</td>
<td>9</td>
</tr>
<tr>
<td>CONSVTY 5576</td>
<td>Professional Aspects Of College Teaching</td>
<td>2</td>
</tr>
</tbody>
</table>

Take six semesters of the following course (12 credits total):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5586B</td>
<td>Seminar In Wind/Band Literature</td>
</tr>
</tbody>
</table>

Take four semesters of the following course (8 credits total):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5583C</td>
<td>Advanced Instrumental Conducting - Band</td>
</tr>
</tbody>
</table>

Take two semesters of the following course (4 credits total):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5697B</td>
<td>Doctoral Conducting Performance</td>
<td>2</td>
</tr>
</tbody>
</table>

Select four "research points" from the following (4 credits total):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5697</td>
<td>Doctoral Recital</td>
</tr>
<tr>
<td>CONSVTY 5698</td>
<td>Research Problems</td>
</tr>
<tr>
<td>CONSVTY 5699</td>
<td>Dissertation Research</td>
</tr>
</tbody>
</table>

Electives (selected in consultation with conducting faculty)

Total Credits: 54 (minimum)

1 All doctoral students are required to complete three graduate music history courses. One must be a period course (CONSVTY 5555 - CONSVTY 5559B), one must be a seminar course, and the remaining course may be either. Any substitutions must be approved by the music history faculty. CONSVTY 5559 A/B, Music from 1900-1945 and Music from 1945-Present strongly encouraged.

2 Conducting recitals may be done with the approval of the major faculty advisor at any time after successful completion of the Graduate Approval of Major. Two public performances with supporting documents are required for the degree.
A minimum of one doctoral research project, exhibiting the highest level of independence, must be finished after comprehensive examinations are successfully completed. Two rehearsal/lecture demonstrations must be completed. Participation in at least one major ensemble, as advised by the conducting faculty, during each term of enrollment as a full-time student is required.

**Language Requirement**

There is no language requirement for the DMA in Conducting, Wind Interest Area.
Doctor of Musical Arts in Music Composition Required Courses

Student Learning Outcomes

Students graduating from this program will:

• Students will clearly articulate their musical voice as creative artists, and their skills as collaborators with performers and generative artists.
• Students will demonstrate their mastery of technical skills in music composition, analysis, and of style, genre and media.
• Students will develop their skills as artists, collaborators, and speakers, to promote their work.
• Students will build their careers as composers and academics through arts advocacy, mentoring and/or teaching.

Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Take the following course 3 times:</td>
<td>9</td>
</tr>
<tr>
<td>CONSVTY 5533</td>
<td>Advanced Composition</td>
<td>3</td>
</tr>
<tr>
<td>or CONSVTY 5534</td>
<td>Advanced Electronic Music Composition</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 5699</td>
<td>Dissertation Research ¹</td>
<td>6</td>
</tr>
<tr>
<td>CONSVTY 5589</td>
<td>Academic Portfolio</td>
<td>2</td>
</tr>
<tr>
<td>Conservatory 5500-5600</td>
<td>Music History (three courses) ²</td>
<td>9</td>
</tr>
<tr>
<td>Conservatory 5500-5600</td>
<td>Music Theory (three courses)</td>
<td>9</td>
</tr>
<tr>
<td>CONSVTY 5593</td>
<td>Introduction To Research And Bibliography In Music</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>50</td>
</tr>
</tbody>
</table>

¹ An extended work in a format approved by the composition faculty. Two copies of the full score must be placed in the Conservatory Library.

² All doctoral students are required to complete three graduate music history courses. One must be a period course (CONSVTY 5555 - CONSVTY 5559B), one must be a seminar course, and the remaining course may be either.
Student Learning Outcomes

**Instrumental**
1. To present three superior level public solo recitals and a lecture recital that are artistically convincing, and historically and theoretically accurate.
2. To understand and be able to communicate the historical and analytical components of music.
3. To reflect on broader dimensions of their own musical experience.
4. To be familiar with advanced research resources in music.
5. Develop competence in the following fundamental performance areas: Technique, Tone, Expression, Intonation and Rhythm.

**Keyboard**
1. To present three superior level public solo recitals and a lecture recital that are artistically convincing, and historically and theoretically accurate.
2. To demonstrate an understanding of (and be able to communicate about) the historical and analytical components of music.
3. To reflect on and apply the broader dimensions of their own musical experience.
4. To demonstrate the ability to research an original topic and present their findings in written and oral forms.

**Voice**
1. To present three superior level public solo recitals and a lecture recital which are artistically mature, historically and theoretically informed, and stylistically and linguistically accurate.
2. To understand and be able to communicate the historical and analytical components of music, not only in coursework but also in other situations relevant to the degree: lecture recitals, doctoral projects, dissertation, teaching (as a GTA or private teacher elsewhere).
3. To reflect on and apply the broader dimensions of their own musical experiences.
4. To demonstrate a familiarity and practical knowledge with advanced research resources in music.

**Required Courses**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music History (three required)</td>
<td>9</td>
</tr>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music Theory (three required)</td>
<td>9</td>
</tr>
<tr>
<td>CONSVTY 5593</td>
<td>Introduction To Research And Bibliography In Music</td>
<td>3</td>
</tr>
<tr>
<td>(APPLIED INSTRUMENT) 5601</td>
<td></td>
<td>4</td>
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</table>

Take the following course 3 times:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5697</td>
<td>Doctoral Recital</td>
<td>2,3</td>
</tr>
<tr>
<td>CONSVTY 5591E</td>
<td>Group Piano Pedagogy</td>
<td>3</td>
</tr>
<tr>
<td>or CONSVTY 5591H</td>
<td>Advanced Pedagogy I - Voice</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 5697A</td>
<td>Doctoral Lecture Recital</td>
<td>4</td>
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</tbody>
</table>

Select four "research points" from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5697</td>
<td>Doctoral Recital</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 5698</td>
<td>Research Problems</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 5699</td>
<td>Dissertation Research</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 48

1 A minimum of one semester of (APPLIED INSTRUMENT) 5601 is required before the first solo recital. Voice performance majors, with the approval of the Vocal Studies Division, may enroll in CONSVTY 5697 any semester to receive credit for a major UMKC opera role (one time only).

2 Concurrent enrollment in (APPLIED INSTRUMENT) 5300 is required for each semester of enrollment in (APPLIED INSTRUMENT) 5601 and CONSVTY 5697.

3 Performance majors must enroll in (APPLIED INSTRUMENT) 5601; CONSVTY 5697; or CONSVTY 5697A, each semester of registration until the recital requirement has been fulfilled.

4 All doctoral students are required to complete three graduate music history courses. One must be a period course (Conservatory 5555-5559), one must be a seminar course, and the remaining course may be either. Any substitutions must be approved by the musicology faculty.

5 A minimum of one doctoral research project, exhibiting the highest level of independence, must be finished after comprehensive examinations are successfully completed.

6 Voice performance majors: Voice 5200 is required for each semester of enrollment in VOICE 5601 and CONSVTY 5697.
Language Requirement
A proficiency in one foreign language is required. See this section (p. 1636) of the catalog for options. DMA in Performance students majoring in orchestral instruments and guitar do not have a foreign language requirement.

Notes
Voice Majors
Must enroll in:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5547</td>
<td>Opera History</td>
<td>3</td>
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<tr>
<td></td>
<td>Select one of the following:</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 5566A</td>
<td>Advanced Vocal Literature: French Melodies</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 5566B</td>
<td>Advanced Vocal Literature: German Lieder</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 5566C</td>
<td>Advanced Vocal Literature: Nationalistic Art Songs</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 5566D</td>
<td>Advanced Vocal Literature: 20Th Century Amer &amp; Engl Art Songs</td>
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</tr>
<tr>
<td>CONSVTY 5548</td>
<td>Opera Literature</td>
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</tr>
</tbody>
</table>

Total Credits 5

Voice majors must pass the diction proficiency test in French, German and Italian.

Instrumental Majors
All students whose major is an orchestral instrument must be enrolled in Conservatory Wind Symphony, Wind Ensemble or Conservatory Orchestra for a minimum of two semesters.

A maximum of three semesters of an ensemble can be counted on any D.M.A. planned program of study.

Must include three major works of chamber music in the recital component of the degree as determined in consultation with students’ applied professor. These works may be performed on one program, or spread among the three recitals.

Keyboard Majors
Piano majors must enroll for a total of two semesters (two credits) of chamber music and one semester of CONS 5569 (two credits). One of the three recitals (CONSVTY 5697) must include at least one major chamber work.
Interdisciplinary Ph.D. study in Music Education

Program Requirements
The Conservatory participates in the Interdisciplinary Ph.D. Program (http://sgs.umkc.edu/interdisciplinary-ph-d-studies-at-umkc) for students who desire music education as their coordinating discipline and curriculum and instruction as a co-discipline. Students with a background in music therapy can elect music education as their coordinating discipline and choose from possible co-discipline options in consultation with the music therapy faculty.

Application is made through the School of Graduate Studies (http://sgs.umkc.edu).

Student Learning Outcomes
Students will demonstrate a thorough degree of knowledge in the primary discipline and co-discipline.

Students will demonstrate interdisciplinarity in their writing by integrating methods, theories, paradigms, concepts, etc. from more than one discipline.

Students will demonstrate an ability to use proper investigation techniques for their chosen disciplines.

Students will effectively use oral and written forms of communication to convey their ideas.

Program Goals
Grounding in the primary and co-disciplines: Students will have a solid grounding in theories, concepts and methodologies of two or more disciplines.

Integrate the principles and theories of each of the disciplines: Enables students to acquire the skills of interdisciplinary scholarship and research.

Effectively communicate findings and approaches to solving interdisciplinary research problems: Students will effectively use oral and written forms of communication to convey their ideas.

Research skills in each discipline: Acquire research skills in each discipline such as approaches, methods, ethical principles, and tools to pursue a research line of inquiry.

Form effective teams with diverse scholars across disciplines: Provides opportunities for individuals to gain skills in working within a collaborative environment with diverse scholars across disciplines to solve novel research questions.
Master's Degrees

General Information
The master of arts, master of music and master of music education degree programs require a minimum of 30 semester hours; at least 18 hours must be numbered 5500 or above. No 300- or 400-level courses may be included in a master’s program if required in the comparable baccalaureate degree at the Conservatory of Music and Dance. CONSVTY 5599, CONSVTY 5598 or CONSVTY 5589 is required on all degree programs except performance. With the approval of the supervisory committee and the principal graduate adviser, students can transfer hours equal to 20 percent of the planned program from an accredited institution other than UMKC, but any such transfer credit must be less than seven years old at the time the degree is awarded. The official time limit for the completion of the master’s degree is seven years.

Comprehensive Examination
The comprehensive examination must be taken during or after the last term of coursework. It is designed to last a total of eight hours and the content is at the discretion of the supervisory committee. The examination is offered during the fifth week of fall and spring semesters and may be scheduled during a summer session with the approval of the supervisory committee. If taken in the summer, the questions may not be graded until the Fall Semester. Students must be enrolled during the term the comprehensive examination is administered.

Project Option for Comprehensive Examination
Students wishing to opt for a Project in lieu of exam questions must inform the adviser during these sessions, and obtain a Comprehensive Examination Project Form (three copies).

Procedures:
1. As soon as possible after the advising session has taken place:
   a. Student secures the agreement of a faculty member to be their Comps Project Chair
   b. Student secures the agreement of two additional faculty to be committee members
   c. Student creates a half-page Project Description and secures all three signatures on the form, one copy of which remains with the Chair, another to the advisor; the third copy is retained by the student
   d. The advisor notifies the chair when the form has been received
2. Before the end of the Masters’ Comps week (week five) in the semester when the project is to be completed:
   a. The student completes the project and provides appropriate documentation to the committee members. For events, students must provide video documentation for any committee members who were unable to attend
3. Before the deadline provided by the Comprehensive Exam Coordinator each semester:
   a. Each committee member prepares and submits a report on the project, together with a grade of high pass, pass or fail, to the Chair.
   b. The Chair submits all reports and grades to the Comprehensive Exam Coordinator. Students must receive a grade of pass or high pass from each committee member to pass the Master’s Comprehensive Project. Students are allowed to do further work on the project at the discretion of the Master’s Committee.
Master of Arts in Music Required Courses

Student Learning Outcomes

Students graduating from this program will:

- Write at a publishable level about music in a way that demonstrates a high level of musical comprehension.
- Be able to explore music within a variety of contexts, in order to provide insight and demonstrate comprehension of advancing musical concepts.
- Create original music-based works, using the vehicle that serves as an appropriate academic focus.

Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area of Concentration 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music Theory 2</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music History 3</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5593</td>
<td>Introduction To Research And Bibliography In Music</td>
<td>3</td>
</tr>
<tr>
<td>or CONSVTY 5594A</td>
<td>Introduction To Experimental Research In Music</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 5598</td>
<td>Research Problems</td>
<td>2</td>
</tr>
<tr>
<td>Applied Music Study 4</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

1 The area of concentration is developed by the student with guidance and approval of the supervisory committee as part of the planned program. Nine hours of work in one discipline must be completed. Examples of concentration areas include (but are not limited to): Composition, Conducting, Education, Musicology, Jazz, Performance, Theory.

All students applying for the Master of Arts in Music with an area of concentration in Jazz must audition on their applied instrument for the jazz studies faculty. No other audition is required. Applied lesson requirements will be fulfilled within the Jazz Division during the student's course of study.

2 Elective credit may be substituted for students pursuing an area of concentration in music theory.

3 Elective credit may be substituted for students pursuing an area of concentration in music history.

4 If the applicant qualifies for applied lessons at the 302 level, a minimum of two credit hours is required. If the applicant does not qualify for applied lessons at the 302 level, the student must enroll in applied lessons for three terms or until completion of the 302 level. Students who chose a performance area of concentration must complete a minimum of one semester of 5500A. A total of nine hours of lessons/ensembles is required for an applied area of concentration.

University of Missouri - Kansas City
**Master of Arts in Music: Music Therapy Emphasis**

**Student Learning Outcomes**

1. Graduate students will initiate the skills of community contact, planning, and collaboration in order to complete an advanced clinical experience within the community for 1-2 semesters prior to finishing their degree.

2. Graduate students will demonstrate advanced knowledge of a selected population and/or clinical area of practice as evidenced by treatment plan and implementation that are informed by a theoretical framework and the therapeutic function of music by the end of their advanced clinical rotation(s).

3. Graduate students will use advanced clinical musicianship in practice as demonstrated by the use of bar chords and advanced strumming and fingerpicking techniques on guitar, and advanced accompaniment patterns on piano, as well as composition for therapeutic effectiveness by the end of their advanced clinical rotation(s).

4. Graduate students will demonstrate an understanding of a theoretical framework to inform practice and research in an area of specialty before completing their degree.

5. Graduate students will develop a project that supports translational research before completing their degree.

**Required Courses**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5544</td>
<td>Advanced Clinical Experience</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 5542</td>
<td>Clinical Supervision in Music Therapy</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5541</td>
<td>Theories and Practice of Music Therapy</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5545</td>
<td>Seminar In Music Therapy</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music History or Music Theory</td>
<td>3</td>
</tr>
</tbody>
</table>

Total hours in this section: 15

**Specialization in Clinical Research:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5594A</td>
<td>Introduction To Experimental Research In Music</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5585</td>
<td>Introduction to Descriptive Research in Music</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5545</td>
<td>Seminar In Music Therapy</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 5599</td>
<td>Thesis</td>
<td>3</td>
</tr>
</tbody>
</table>

OR

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5589</td>
<td>Academic Portfolio</td>
<td>3</td>
</tr>
</tbody>
</table>

Total hours in this section: 11

**Electives in Area of Special Interest (suggested options):**

- VOICE, PIANO or GUITAR 5500C (applied lesson)
- Gerontology
- Health Services Administration
- Gerontology Administration
- Counseling Psychology and Counselor Education
- Education
- Sociology

Total hours in this section: 7

**Total Credits: 33**
Master of Music Education Required Courses

Student Learning Outcomes

Students graduating from this program will:

- Graduate students will demonstrate scholarly competence in the organization, interpretation and evaluation of knowledge.
- Graduate students will demonstrate professional competence in the communication and dissemination of knowledge.

Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5591G</td>
<td>Pedagogy of Music Theory</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5574</td>
<td>History And Philosophy Of Music Education</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>choose ONE of the following courses (3 credits total):</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 5589</td>
<td>Academic Portfolio</td>
<td>3</td>
</tr>
<tr>
<td>or CONSVTY 5599</td>
<td>Thesis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>choose ONE of the following RESEARCH courses (3 credits total):</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 5594A</td>
<td>Introduction To Experimental Research In Music</td>
<td>3</td>
</tr>
<tr>
<td>or CONSVTY 5585</td>
<td>Introduction to Descriptive Research in Music</td>
<td></td>
</tr>
<tr>
<td>or CONSVTY 5578</td>
<td>Research for Music Teachers</td>
<td></td>
</tr>
</tbody>
</table>

Methods/Materials/Music Electives (e.g., CONSVTY 5540x, 5582x, 5583x, 5586x, 5587x, Summer Workshops, Applied Music) 8

Electives 10

TOTAL: 30 hours minimum
Master of Music in Conducting Required Courses

Student Learning Outcomes

Students graduating from this program will:

• Students will be able to apply advanced skills in conducting to their ensemble direction, analytical studies of musical scores, score reading, and rehearsal techniques.
• Students will be able to apply advanced skills in music history and theory to their score study in preparation for conducting.
• Students will be able to synthesize musicological research and apply it to their writing about music.
• Students in choral conducting will be able to apply vocal pedagogy skills to their performances and rehearsals in English, German, French, Italian, and Latin diction.

Choral Interest Area

Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music History</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music Theory</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5593</td>
<td>Introduction To Research And Bibliography In Music</td>
<td>3</td>
</tr>
<tr>
<td>Take 4 semesters of the following:</td>
<td>Advanced Choral Conducting-Masters Level</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 5580</td>
<td>Seminar In Choral Literature</td>
<td></td>
</tr>
<tr>
<td>Take 4 semesters of the following:</td>
<td>Master's Conducting Performance</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 5597A</td>
<td>Research Problems</td>
<td>2</td>
</tr>
<tr>
<td>Electives 2</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Total Credits: 30 (minimum)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 One public performance is required, as is one rehearsal or lecture demonstration.
2 Recommended electives for the Choral track include applied voice and vocal pedagogy.

Orchestral Interest Area

Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music History</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music Theory</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5593</td>
<td>Introduction To Research And Bibliography In Music</td>
<td>3</td>
</tr>
<tr>
<td>CONS 5583 Advanced Instrumental Conducting (any two from 5583A or 5583B)</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 5582A</td>
<td>Advanced Choral Conducting - Technique</td>
<td>2</td>
</tr>
<tr>
<td>or CONSVTY 5582B</td>
<td>Advanced Choral Conducting - Style</td>
<td></td>
</tr>
<tr>
<td>or CONSVTY 5582C</td>
<td>Advanced Choral Conducting-Rehearsal Techniques</td>
<td></td>
</tr>
<tr>
<td>Take 2 semesters of the following:</td>
<td>Seminar In Orchestral Literature</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 5586A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied Music 1</td>
<td></td>
<td>2-6</td>
</tr>
<tr>
<td>CONSVTY 5597A</td>
<td>Master's Conducting Performance 2</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 5598</td>
<td>Research Problems</td>
<td>2</td>
</tr>
<tr>
<td>Electives 1-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Credits: 30 (minimum)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Orchestral Applied Requirement: The applicant must enroll in applied music the first term of registration as a full-time, degree-seeking student. Progress will be measured by the following:
1. If the applicant qualifies for applied music at the 401 level, a minimum of two credit hours is required.
2. If the applicant does not qualify for applied music at the 401 level, the student must enroll in applied music for a minimum of two terms, until completion of the 401 level, or until graduation.
3. In addition, instrumental conducting majors will be required to enroll in two terms of applied music on other appropriate instruments, as advised by the conducting faculty.

One public performance is required, as is one rehearsal or lecture demonstration.

Wind Interest Area
Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music History</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music Theory</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5593</td>
<td>Introduction To Research And Bibliography In Music</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5583</td>
<td>Advanced Instrumental Conducting (any two from 5583A or 5583C)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Take 2 semesters of the following:</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 5586B</td>
<td>Seminar In Wind/Band Literature</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Applied Music 1</td>
<td>2-6</td>
</tr>
<tr>
<td>CONSVTY 5597A</td>
<td>Master's Conducting Performance 2</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 5598</td>
<td>Research Problems</td>
<td>2</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>1-5</td>
</tr>
</tbody>
</table>

Total Credits: 30 (minimum)

The Applied Music requirement can be met through any type of instruction focused on the applied study of any instrument or voice. These experiences must be selected in consultation with the major professor.

One public performance is required, as is one rehearsal or lecture demonstration.
Master of Music in Music Composition Required Courses

Student Learning Outcomes

Students graduating from this program will:

• Students will develop their musical voice as creative artists, and consistently produce works.
• Students will develop mastery of analytical and technical skills in a variety of media and genres.
• Students will develop their skills as collaborators with performers and generative artists and promote their work.
• Students will refine their ability to speak and write about their music and the music of their time, and build audiences through mentoring, teaching and advocating new music.

Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5500-CONSVTY 5600</td>
<td>Music History</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5500-CONSVTY 5600</td>
<td>Music Theory</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5593</td>
<td>Introduction To Research And Bibliography In Music</td>
<td>3</td>
</tr>
</tbody>
</table>

Take the following course 3 times:

| CONSVTY 5533 | Advanced Composition | 3       |
| CONSVTY 5531 | Advanced Orchestration | 3       |
| CONSVTY 5599 | Thesis 1             | 4       |

Electives                  5
Total Credits               30

1 An appropriate composition. A score must be filed in the Conservatory Library.
Master of Music in Music Theory Required Courses

Student Learning Outcomes
1. Students will be able to demonstrate insight into musical works of moderate complexity through written analyses of those works (both in classes and in a thesis).
2. Students will be able to convey familiarity and moderate fluency with standard music-theoretical and analytical concepts.
3. Students will be able to utilize music-theoretical knowledge and insight to initiate substantial scholarly work in analysis, theory, and pedagogy (in music theory or a related field).

Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5593</td>
<td>Introduction To Research And Bibliography In Music</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Music History (Graduate Level)</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5524B</td>
<td>Advanced Analysis II: 1600-1900</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5524C</td>
<td>Advanced Analysis III: 20th Century to the Present</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5526A</td>
<td>Introduction to Schenkerian Theory and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5526B</td>
<td>Schenkerian Theory and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5591G</td>
<td>Pedagogy of Music Theory</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5598</td>
<td>Research Problems</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 5599</td>
<td>Thesis</td>
<td>6</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>35</td>
</tr>
</tbody>
</table>

Piano Proficiency Requirement
The Conservatory’s undergraduate piano proficiency requirement must be met.

Applied Music Requirement
Successful completion of one of the following is required:

• If the student qualifies for applied music at the 302 level, then no applied study is required.
• If the student does not qualify through audition for applied music at the 302 level, then the student must enroll for applied study for three semesters or until the 301 jury is passed.

Foreign Language Requirement
For all masters students in Music Theory, a grade of B- (2.7) or better in a first-semester, sophomore-level foreign language course or C (2.0) work or better in each of two junior-level courses or in one senior-level literature or civilization course is viewed as an adequate demonstration of foreign language skills. Students must study French, German, Italian or Latin unless the substitution of another language is approved by a minimum of two-thirds of the supervisory committee. A language proficiency test, if provided by language instructors or departments, may be substituted for course requirements provided it documents language capabilities equivalent to the previously described courses. In such cases, a letter from the university language professor, describing the process and results, must be forwarded to the Conservatory Associate Dean for Graduate Studies.
Master of Music in Musicology Required Courses

Student Learning Outcomes

Students graduating from this program will:

• Students will be able to express original and substantive ideas about music in writing.
• Students will be able to speak at a professional level about music in a variety of forums.
• Students will be able to use basic research resources in music effectively.
• Students will be able to apply various historical and critical perspectives to their own study of music.

Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music History (four courses, two periods and two of choice)</td>
<td>12</td>
</tr>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music Theory</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5593</td>
<td>Introduction To Research And Bibliography In Music</td>
<td>3</td>
</tr>
<tr>
<td>Applied Music 5500A (or three terms in the same performing medium at any level)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 5591K</td>
<td>Pedagogy of Music History</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5693</td>
<td>Advanced Research and Bibliography In Music</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5598</td>
<td>Research Problems</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 5599</td>
<td>Thesis</td>
<td>6</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>1-3</td>
</tr>
</tbody>
</table>

Total Credits: 35 (minimum)

1 Elective credit may be substituted if the 5500A level of an applied instrument is achieved at the audition.

Language Requirements

For all M.M. students in Musicology, a grade of B- (2.7) or better in a first-semester, sophomore-level foreign language course. Students must study French, German or Italian unless the substitution of another language is approved by the supervisory committee. A language proficiency test may be substituted for course requirements, provided it documents language capabilities equivalent to the completion of a first-semester, sophomore-level course. This must be approved in advance by the supervisory committee. In such cases, a letter describing the process and results must be forwarded to the chair of the supervisory committee, the musicology area coordinator and the Conservatory Associate Dean for Graduate Studies.

Supervisory Committee

The Supervisory Committee, which consists of at least two musicology faculty plus one other member, is assigned to approve the planned program and prepare and grade the comprehensive examination. The committee must be selected before the student completes two terms of enrollment.

Graduate Approval of Major

Complete CONSVTY 5593, CONSVTY 5591K, and CONSVTY 5693 with a grade of at least A; one graduate-level music history course with a grade of at least A; and present a scholarly paper before a public forum on a topic agreed to in advance by the musicology faculty (the duration of the presentation is to be at least 20 minutes).
Master of Music in Performance: Keyboard Emphasis

Student Learning Outcomes

1. To present two high-level public solo recitals that are correct technically and artistically convincing.
2. To demonstrate an understanding of (and be able to communicate about) the historical and analytical components of music.
3. To reflect on and apply the broader dimensions of their own musical experience.
4. To demonstrate the ability to research an original topic and present their findings in written and oral forms.

Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music History</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music Theory</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5593</td>
<td>Introduction To Research And Bibliography In Music</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5569</td>
<td>Graduate Piano Literature Seminar</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Take two semesters of the following course:</td>
<td>8</td>
</tr>
<tr>
<td>PIANO 5501</td>
<td>Graduate Piano - Masters Performance 1,2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Take two semesters of the following course:</td>
<td>8</td>
</tr>
<tr>
<td>CONSVTY 5597</td>
<td>Master’s Recital 2,3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Choose one of the following courses:</td>
<td></td>
</tr>
<tr>
<td>CONSVTY 5591E</td>
<td>Group Piano Pedagogy</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSVTY 5592E</td>
<td>Advanced Piano Pedagogy</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Take two semesters of the following course:</td>
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<tr>
<td>CONSVTY 305G</td>
<td>Principles Of Chamber Music</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 32

1 A minimum of one semester of applied music (5501) is required before the first recital. PIANO 5501 or CONSVTY 5597 is required each semester of enrollment until the recital requirement is met.
2 Concurrent enrollment in PIANO 300 is required for each semester of enrollment in PIANO 5501 and CONSVTY 5597.
3 Piano students are required to present two public recitals.
Master of Music in Performance: Orchestral Instruments and Guitar Emphasis Areas

Student Learning Outcomes

1. To present two high-level public solo recitals that are correct technically and artistically convincing.
2. To understand the historical and analytical components of music.
3. To reflect on broader dimensions of their own musical experience.
4. To be familiar with basic research resources in music.

Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music History</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music Theory</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5593</td>
<td>Introduction To Research And Bibliography In Music</td>
<td>3</td>
</tr>
<tr>
<td>(APPLIED INSTRUMENT) 5501</td>
<td></td>
<td>4</td>
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<td>Take the following course 2 times:</td>
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<tr>
<td>CONSVTY 5597</td>
<td>Master's Recital</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Take the following course 4 times:</td>
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<tr>
<td>CONSVTY 305A</td>
<td>Principles Of Chamber Music</td>
<td>3</td>
</tr>
<tr>
<td>Electives (Non-applied music courses)</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>36</td>
</tr>
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</table>

1 A minimum of one semester of applied music (5501) is required before the first recital. (APPLIED INSTRUMENT) 5501 or CONSVTY 5597 is required each semester of enrollment until the recital requirement is met.

2 Concurrent enrollment in (APPLIED INSTRUMENT) 300 is required for each semester of enrollment in (APPLIED INSTRUMENT) 5501 and CONSVTY 5597.

Notes: All students whose major is an orchestral instrument must be enrolled in Conservatory Wind Symphony, Wind Ensemble or Conservatory Orchestra for a minimum of two semesters. Not more than one half the total hours counted toward the planned program may be in applied music and recitals. A maximum of two semesters of an ensemble can be counted on any master's planned program of study.
Master of Music in Performance: Voice Emphasis

Student Learning Outcomes

Students graduating from this program will:

• 1. The student will demonstrate correct vocal technique required of a soloist.

• 2. The student will synthesize and apply the historical and analytical components of music as it applies to the vocal repertoire;

• 3. The student will identify and apply proper linguistic grammar, diction, and idiomatic pronunciation as it pertains to the operatic and art song repertoire;

• 4. The student will demonstrate proper stage movement, musical/textual artistry, and acting skills through workshop and live performances;

• 5. The student will examine and apply techniques of basic historical research in music.

Voice Emphasis

Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music History</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music Theory</td>
<td>3</td>
</tr>
<tr>
<td>VOICE 5502</td>
<td>Applied Voice</td>
<td>2</td>
</tr>
<tr>
<td>CONSVTY 5593</td>
<td>Introduction To Research And Bibliography In Music</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5597</td>
<td>Master's Recital ²</td>
<td>4</td>
</tr>
<tr>
<td>CONSVTY 5548</td>
<td>Opera Literature</td>
<td>2</td>
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</tbody>
</table>

Take the following course two times: 8

| VOICE 5501       | Graduate Voice - Masters Performance ¹                      |         |

Take the following course two times: 2

| VOICE 5200      | Vocal Coaching: Recital and Operatic Repertoire             |         |

Select one of the following courses: 2

| CONSVTY 5566A   | Advanced Vocal Literature: French Melodies                  |         |
| CONSVTY 5566B   | Advanced Vocal Literature: German Lieder                    |         |
| CONSVTY 5566C   | Advanced Vocal Literature: Nationalistic Art Songs          |         |
| CONSVTY 5566D   | Advanced Vocal Literature: 20Th Century Amer & Engl Art Songs |         |

Conservatory Choral Ensemble (2 semesters required) 2

| CONSVTY 5517    | Advanced Opera Workshop: Audition Techniques                | 1       |

Electives ³        |                                                                 | 4       |

Total Credits 36

¹ Concurrent enrollment in VOICE 300 is required for each semester of enrollment in VOICE 5501 and CONSVTY 5597.
² The Master’s Recital is typically taken in either semester three or four.
³ Recommended electives include: VOICE 5200, CONSVTY 5566A, CONSVTY 5566B, CONSVTY 5566C, CONSVTY 5566D, CONSVTY 5577, CONSVTY 5591E CONSVTY 5591H, CONSVTY 5116

Notes:

Not more than one-half the total hours counted toward the planned program may be in applied music and recitals.

A minimum of one semester of applied music (5501 or 5502) is usually required before the vocal solo recital. However, Voice Performance majors, with the approval of the Vocal Studies Division, may enroll in 5597 Masters Recital for any semester. The Master’s Recital is typically taken in either semester 3 or 4.

A student may not concurrently enroll in CONSVTY 5597 with either VOICE 5501 or VOICE 5502 in the same semester.

Diction Proficiency Test

The Vocal Studies Division Coaching Faculty will administer the Diction Proficiency Test for French, German and Italian during the first week of the fall semester. This proficiency test must be passed. Remedial diction courses may be recommended. If these remedial courses are taken for no credit/grade, students will be required to re-take and pass the proficiency test.
Language Requirement
All MM students in Voice Performance must receive a grade of B- (2.7) or better in a second-semester, freshman-level foreign language course. Students must study French, German, or Italian. Another language may be substituted provided the student documents language capabilities equivalent to the completion of a second-semester, freshman-level course and the substitution is approved by the Vocal Studies Division (VSD) faculty in advance. A student who has not formally completed the required language courses, but is able to demonstrate competency at the suggested level, may petition to be tested by members of the voice or coaching faculty at a scheduled time during their UMKC audition day. In such cases, a letter describing the process and results must be forwarded to the Chair of VSD and the Conservatory Associate Dean of Graduate Studies.

Opera Role
Each student in the MM in Voice Performance degree must audition for an opera role a minimum of two semesters. Students who are cast and accept a role in the opera productions are required to enroll in either CONSVTY 5516 (Major Role) or CONSVTY 5116 (Minor Role). The VSD Faculty will determine if a role is "major" or "minor," based on the level of difficulty of preparation and performance of the particular opera role. Enrollment in CONSVTY 5516 and CONSVTY 5116 will include vocal coaching hours during the rehearsal period for the assigned opera role. Opera auditions for the academic year will typically occur either at the end of the spring semester or the beginning of the fall semester.
# Master of Music in Performance: Woodwind Emphasis

## Student Learning Outcomes
1. To present two high-level public solo recitals that are correct technically and artistically convincing.
2. To understand the historical and analytical components of music.
3. To reflect on broader dimensions of their own musical experience.
4. To be familiar with basic research resources in music.

## Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music History</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5500-5600</td>
<td>Music Theory</td>
<td>3</td>
</tr>
<tr>
<td>CONSVTY 5593</td>
<td>Introduction To Research And Bibliography In Music</td>
<td>3</td>
</tr>
<tr>
<td>(APPLIED INSTRUMENT #1) 5501</td>
<td>1,2</td>
<td>4</td>
</tr>
<tr>
<td>(APPLIED INSTRUMENT #2) 5500A</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>(APPLIED INSTRUMENT #3) 5500A</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>MUAG 5591H &amp; CONSVTY 5592</td>
<td>Advanced Pedagogy I - Voice and Advanced Pedagogy II</td>
<td>4</td>
</tr>
</tbody>
</table>

Take the following course 2 times:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSVTY 5597</td>
<td>Master’s Recital</td>
<td>5</td>
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</table>

**Total Credits: 34 (minimum)**

1. A minimum of one semester of applied music is required before the recital. Not more than one-half of the total hours counted toward the planned program may be in applied music and recitals.
2. Concurrent enrollment in (APPLIED INSTRUMENT) 300 is required for each semester of enrollment in (APPLIED INSTRUMENT) 5501 and CONSVTY 5597.
3. A graded half recital during the second semester of study on instruments #2 and #3 is required.
4. Two semesters of participation in a major ensemble are required on instrument #1. One semester of ensemble participation each is required on instruments #2 and #3.

**Note:** Jury approval of the 101(2) applied level on instruments #4 and #5 is required before graduation.
Performer's Certificate Required Courses

Student Learning Outcomes

Instrumental
1. To present two public performances that exhibit the highest degree of instrumental/vocal competence and artistry.
2. To gain broad experience in a significant amount of repertoire.
3. To present a business plan that assists their career plan.
4. To make contacts with people in the music world who can help them in their career.
5. Demonstrate competence in the following fundamental performance areas: Technique, Tone, Expression, Intonation and Rhythm.

Keyboard
1. To present two public performances that exhibit the highest degree of instrumental/vocal competence and artistry.
2. To demonstrate proficiency in a significant amount of repertoire.
3. To present a business plan that assists their career plan.
4. To make contacts with people in the music world who can help them in their career, and demonstrate an understanding of the principles of effective professional networking.

Voice
1. To present two public performances that exhibit the highest degree of instrumental/vocal competence and artistry.
2. To gain broad experience in a significant amount of repertoire.
3. To present a business plan that assists their career plan.
4. To make contacts with people in the music world who can help them in their career.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lessons and Recitals (Solo Experiences)</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Chamber and Ensemble Work (Collaborative Experiences) and/or Prescribed Electives</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Music Literature/Pedagogy</td>
<td>3-5</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits: (minimum)</strong></td>
<td><strong>27-29</strong></td>
</tr>
</tbody>
</table>

1 Instrumental and keyboard students: four hours of lessons and 12 hours of recitals. Piano students are required to present three public recitals. Voice students: eight hours of lessons and eight hours of recitals.

2 Instrumental students, three hours; keyboard students, five hours; voice students, four hours.

3 Voice students - Will enroll in Vocal Coaching concurrently with lessons and recitals.

**Note:** Voice students must pass the diction proficiency test in French, German and Italian.
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Health Sciences Building (http://www.umkc.edu/virtualtour/hsb.asp)
Hospital Hill Campus
2464 Charlotte Street
(816) 235-1700
Fax: (816) 235-1701
nurses@umkc.edu
http://sonhs.umkc.edu

Mailing Address
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School of Nursing and Health Studies
2464 Charlotte Street
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Ann H. Cary

Associate Dean for Academics:
M. Joy Roberts

Associate Dean for Students:
Sally Ellis Fletcher

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Health Sciences Courses

HLSC 100 Student Success Strategies Credit: 1
Topics will include setting goals for academic success, anticipating obstacles, problem solving solutions, and time management. Students will practice improving their listening, note-taking, and reading skills. They will practice communication, public speaking, and writing skills. Students will begin self-evaluation strategies to learn more about their motivation for successfully completing their academic program.
Prerequisites: Admission into the BHS program

HLSC 101 Introduction to Health Sciences Credits: 3
This course introduces students to career options in health sciences. Students will explore basic concepts related to understanding one's role and scope of practice, professional responsibilities, and education and credentialing requirements for various careers in health. The course will explore basic concepts required by any health professional including history, safety, ethics, interpersonal skills, general well-being, as well as special skills and aptitudes required in various health care clusters. Students will explore health career paths in medical, government, business, non-profit, and many other sectors. Additionally, students will explore various campus resources focused on student success strategies.

HLSC 110 Personal Wellness Credits: 3
This course presents an overview of health behaviors and actions needed to achieve a combination of physical, mental, and social well-being through intelligent lifestyle choices. Effective strategies for staying healthy and improving one's health will be explored. Elements of stress management, preservation of physical and mental well-being, personal hygiene and strong social relationships will be discussed.

HLSC 120 Anatomy & Physiology I Credits: 4
This course examines the structure and function of the human body from the molecular to the organism level as they interact among all body systems across the life span. Instructors also attempt to correlate course materials with the clinical aspects of the application of physiological knowledge. Co-requisite laboratory exercises provide practical application of theoretical concepts. In this first term of two-term course, molecular biology, biochemistry, cellular biology, and histology are studied as well as the integumentary, musculoskeletal, and nervous systems.

HLSC 125 Medical Terminology Credit: 1
This course is designed to provide the student with a foundation in medical terminology and the components of health records. Course content will include how medical terms are formed; how medical terms are applied to organs, body systems and pathological conditions; how common medical abbreviations are used; and how health records are organized and compiled.

HLSC 160 Anatomy and Physiology II Credits: 4
This course is a continuation of HLSC 120. Co-requisite laboratory exercises provide practical application of theoretical concepts. Physiologic systems including endocrine, cardiovascular, immune, respiratory, digestive, renal, and reproductive are studied as well as embryology and genetics.
Prerequisites: HLSC 120 (or NURSE 120).

HLSC 200 First Aid / CPR Credit: 1
This course is designed to certify students with the American Heart Association (AHA) in Basic Life Saving for Healthcare Providers and bloodborne pathogens. Students will be exposed to critical concepts of high quality Cardiopulmonary Resuscitation (CPR), the AHA's Chain of Survival, and 1 and 2 rescuer CPR and Automatic External Defibrillator (AED) for adult, child and infants. Bag-mask technique, rescue breathing, relief of choking will be covered. Adult and pediatric first aid basics, medical emergencies, injury emergencies, and environmental emergencies will be covered. The course will include information on bloodborne pathogens (protection, action, proper cleaning and reporting).

HLSC 230 Health Issues in Aging Credits: 3
This course focuses on promotion and maintenance of the health and well-being of the older adult population. Current trends and needs of the ever changing and diversifying older adult population are discussed. The physiological and psychological domains, socio-cultural influences, legal and ethical issues, and health care resources pertaining to older adults in relationship to their health and quality of life are explored. Assessments, problems and strengths, interventions, and outcomes specific to the older adult population are discussed. Opportunities are provided for interaction with the older adult population through service learning.
Prerequisites: Admission into the Bachelor of Health Sciences program or admission into the Minor in Gerontology.
HLSC 252 Human Growth and Development Credits: 3
This course provides a basic introduction to the theory for human growth and development across the life span. Emphasis is placed upon the biological and the psychosocial aspects of growth and development. Content is organized in a modified chronological order dividing information into major stages of growth and development across the lifespan.

HLSC 255 Spanish for Health Care Pre-Professionals Credits: 3
This course focuses on conversational Spanish, medical terminology in Spanish, and written/read Spanish. This course will provide the student with basic knowledge that will allow communication with clients who speak/read/write Spanish. This is a fast paced course and will require practice of the language outside of the classroom in order to master the material presented.

Prerequisites: SPANISH 110.

HLSC 300 Diversity in Health Credits: 3
This course will explore social determinants of health, i.e. how social, cultural, political, historical, and economic influences shape the individual's own values, beliefs, and behaviors. This course expands students' basic knowledge of cultural diversity to provide special focus on health disparities among marginalized populations. Students will examine diversity by exploring health inequities related to race and ethnicity, immigration status, disabilities, gender, access, poverty, sexual identity, and veteran status. The course includes experiential learning with organizations focused on reducing health disparities.

Prerequisites: HLSC 101 (BHS Students); PBHL 158 (PBHL Students).

HLSC 310 Healthcare Systems Credits: 3
The course is designed to provide a description and overview of the organization, financing, and delivery of healthcare in the United States. The historical background and the impact of socio-political, economic, and cultural influences will be explored. The purpose of the course is to provide a framework of understanding of the healthcare system through examination of public and private sectors, market competition, and government regulation. Major issues currently facing the healthcare system will be examined.

Prerequisite: HLSC 101 (or co-requisite, BHS Students); PBHL 158 (or co-requisite, PBHL Students).

HLSC 315 Health Literacy Credit: 1
In this course participants will explore the fundamentals of health literacy and demonstrate the impact on health outcomes. Students will be introduced to tools that health care professionals can use to assess the health literacy of their patients/clients. Tools and resources to provide health information at the correct health literacy level will be presented. Students will explore interventions that can increase an individual's health literacy.

HLSC 323 Bluford Healthcare Leadership Institute Phase I Credits: 3
This course is a leadership development program designed to expose students to dynamic leadership principles while analyzing challenging issues in today's healthcare landscape with leading national and local executives in the field. Topics covered include social determinants of health, delivery of healthcare in the U.S., for profit and not-for profit healthcare systems, public health, public policy, and health law. The course includes site trips to an urban core safety net hospital and its behavioral health department, a community health center, and a healthcare informational technology corporation among others.

Prerequisites: Acceptance into Bluford program.

HLSC 325 Human Sexuality Credits: 3
This course is designed to introduce students to the field of human sexuality. Course content will include sexual anatomy and physiology, sexuality across a life-span, sexually transmitted infections, contraception, pregnancy and childbirth, sexual orientation, love and relationships, sexual therapy, sex education, gender identity and gender roles and social and legal issues related to sex. Recommended preparation: HLSC 110.

HLSC 345 Quantitative Analysis in the Health Sciences Credits: 3
This course focuses upon the skills required for the utilization of scientific findings in evidence-based care. The conceptual basis of descriptive and inferential statistics found in the properties of the normal distribution, comprise the core of these skills. Using the normal distribution as a structure for understanding descriptive and inferential procedures, the course presents information necessary to the selection, computation and interpretation of basic statistics relevant to evidence based-care in the health sciences. Discussions of variables, measurement and tabular and graphic presentation of data precede the development of computation skills.

Prerequisites: MATH 110 or MATH 116 or higher level math course.

HLSC 403A Comparative Weight Loss I Credit: 1
This course explores the bio/psycho/social aspects of weight gain and obesity and compares common weight loss methods according to risk, benefits, and long term and short term implications. Correlations between lifestyle issues such as diet, sleep, stress, and exercise will be explored. Specific topics that will be addressed include risks of overweight/obesity; common psychological issues for the overweight/obese; societal perceptions and barriers for overweight/obese individuals. This course consists of one hour of didactic work with one module per week for four weeks.
HLSC 403B Comparative Weight Loss II Credit: 1
This course explores the bio/psycho/social aspects of weight gain and obesity and compares common weight loss methods according to risk, benefits, and long term and short term implications. Correlations between lifestyle issues such as diet, sleep, stress, and exercise will be explored. Comparison of common medically recommended diets and diet programs and their efficacy/risks; exercise requirements for weight loss and weight maintenance. This course consists of one hour if didactic education with one module per week for four weeks.

Co-requisites: HLSC 403A.

HLSC 403C Comparative Weight Loss 3 Credit: 1
This course explores the bio/psycho/social aspects of weight gain and obesity and compares common weight loss methods according to risk, benefits, and long term and short term implications. Comparison of pharmacologic weight loss options ad their efficacy/risks; non-prescription medications/nutraceuticals for weight loss and their efficacy/risks; and bariatric surgeries and efficacy/risks. This course consists of one hour of didactic work with one module per week for four weeks.

Co-requisites: HLSC 403A.

HLSC 404 Introduction to Social Justice Credit: 1
This course is designed to increase a student’s knowledge regarding personal and social biases based on race, ethnicity, culture, religion, age, sex, sexual orientation, social and economic status, political ideology, disability and how these entities contribute to social injustice. The focus of the course will center on issues involving diversity, prejudice and oppression that impacts social justice. During the course, students will be introduced to tools for developing social justice literacy in order to take action towards establishing a more just society.

HLSC 408 Gender, Health and Development in Senegal Credits: 3
This course examines women’s economic empowerment, health education initiatives, philanthropy, and social entrepreneurship in West Africa and Senegal in particular. In the main city of Dakar we will visit indigenous and global nonprofits to study their policies and processes. The culture, both urban and rural, will be experienced in order to provide a unique perspective on the Senegalese and their culture.

Prerequisites: Junior or Senior Level standing - must meet requirements established by study abroad office.

HLSC 410 Epidemiology Credits: 3
This course is an introduction to epidemiology with an emphasis on applications in public health. Students will learn basic principles of epidemiology, including the relationship of simple statistics to epidemiology and public health, methods of disease investigation, epidemiological study designs and their uses and measures of effects. Through the course, students will be able to apply measures of disease incidence and prevalence, and explain the uses of screening tests and criteria for their evaluation, including measures of validity. The class will explore epidemiology in environmental health and social sciences.

Prerequisites: HLSC 101 (BHS Students), PBHL 158 (PBHL Students), HLSC 345 or STAT 235 or equivalent upper-level statistics course.

HLSC 417 Information Systems and Technology for Improved Health Care Credits: 3
This course provides a basic introduction to health information technology across health care settings. Students will acquire an understanding of key concepts associated with health informatics and network models, systems and management strategies, health information strategic planning, clinical and public health application, data retrieval and analytics, public policy, research, and one’s professional responsibility to protect electronic health care records.

HLSC 419 Introduction to Social Epidemiology Credit: 1
This course is designed to increase a student’s knowledge of Social Epidemiology, which is the branch of epidemiology that studies the social determinants of health. Social processes will be explored that center on social networks, social support, social capital, social cohesion, and contributing ecological factors that influence health and wellness. Students will discover how social relationships and institutions, such as familial relationships, group culture, policies, and global economic forces, promote or undermine the health of populations. Students will also explore how social inequity indicators involving income, health insurance, and access to care inter-relate and often lead to negative health outcomes.

HLSC 423 Bluford Healthcare Leadership Institute Phase II Credits: 3
This course provides students opportunities to build upon and apply the healthcare knowledge learned during the first phase of the Bluford Healthcare Leadership Institute in an internship in a notable healthcare organization. Throughout the internship, students will be mentored by members of the organization’s leadership team and be afforded unique opportunities to learn effective leadership practices, skills, and characteristics. Students will complete an internship project and at the conclusion of the internship will deliver their findings to the organization’s leadership.

Prerequisites: HLSC 323.

HLSC 430 Health Program Management Credits: 3
This course is designed to acquaint students with assessment, planning, implementation, and evaluation of health programs. Issues of health financing, health policy, health delivery, and population health will be explored. The course provides a broad introduction to key concepts in health program management, common issues, evidence-based tools, and usable strategies, regardless of the health settings. Vocabulary relevant to policy makers, managers, administrators, and consumers will be studied. Students will develop mock health programs using provided outlines and budgetary restrictions, while considering human resource restraints, climate, relevance of health issue, and readiness for change.

Prerequisites: HLSC 101 (BHS Students), PBHL 158 (PBHL Students), and HLSC 310.
HLSC 440 Policy and Ethics in Health Credits: 3
This course distinguishes biomedical ethics from public health ethics, highlighting the driving principle of justice in public health policy. Historical and present ethical issues will be explored within a variety of health based organizations and settings. The relationship of how ethics drives policy decisions and improves health outcomes will be discussed. The course will also examine how health policy is created in relationship to core ethical theories and public health justifications.
Prerequisites: HLSC 101 and HLSC 300 (BHS Students); PBHL 158 and HLSC 300 (PBHL Majors); PBHL 158 (PBHL Minors).

HLSC 450 Urban Health Credits: 3
This course focuses on the unique health needs and outcomes of individuals and communities located within an urban core. Included in the course, are the specific ways in which health interventions can be delivered to urban populations to promote better health outcomes and quality of life. The course provides information on urban characteristics including crowding, poverty and crime in exacerbating the health and wellness needs of this historically underserved community.
Prerequisites: HLSC 101 (BHS Students), PBHL 158 (PBHL Students), and HLSC 300.

HLSC 460 Global Health Credits: 3
This course discusses the complexity of health in a global context. It is designed as an overview of the biological, social and environmental contributors to health and diseases in populations around the world. Course content will include case studies of various global organizational structures and systems relative to population health, selected infectious diseases, nutritional deficiencies and health effects of environmental change.
Prerequisites: HLSC 101 (BHS Students), PBHL 158 (PBHL Students), HLSC 300.

HLSC 470 Technology, Marketing and Media in Health Credits: 3
This course will focus on past, present, and future trends in health marketing and messaging. Technology's role in marketing health will be explored. Marketing principles will be used to evaluate strategies to promote health behavior change and social policy. Course content will link current trends in consumer health and how these trends are marketed to the public. Examples include mobile apps and devices, personal health data collection, health data storage, and health risk assessment tools. Students will discuss the philosophical, social and legal issues in the use and abuse of health technology, health marketing, and health in the media.
Prerequisites: HLSC 101 (BHS Students), PBHL 158 (PBHL Students), HLSC 440 (or co-requisite).

HLSC 476 Scientific Inquiry Credits: 3
This course focuses upon the development of inquiry skills necessary to identify relevant research-based literature and apply findings from research to practice. Students will develop an understanding of basic research concepts and evidence based practice in addition to skills in finding, appraising, and using health related literature.
Prerequisites: HLSC 345 or NURSE 345, STAT 235 (or equivalent upper-level statistics course).

HLSC 480 Leadership and Management in Health Professions Credits: 3
This course will provide the student with a theoretical foundation of leadership and management in health professions. The principles of authority, power, politics, decision making, and influence will be explored. Organizational philosophies will be examined within the context of current health issues. The leadership skills of negotiation, delegation, conflict resolution, coaching and mentoring will be discussed, as related to health professions. The role of communication will be examined across organization systems. The effect on gender and cultural diversity on communication will be discussed.
Prerequisites: HLSC 101 (BHS Students), PBHL 158 (PBHL Students), HLSC 300.

HLSC 490 Special Topics Credits: 1-9
A course of study in a special area of interest in health sciences under individual faculty direction.

HLSC 492 Health Sciences Specialty Course Credits: 3
This course provides students an opportunity to develop advanced knowledge and skills in health sciences. Concepts and topics covered throughout the course of the Bachelor of Health Sciences program will be revisited and practiced through a variety of applied assignments and experiences. Students will integrate examples and case studies from their Health Sciences Internship settings into the course.
Prerequisites: All required HLSC courses, student in final semester of senior year.
Co-requisites: HLSC 494.

HLSC 494 Health Science Internship Credits: 6
This course provides an experience-based internship for the senior student. Depending upon the health professions career selected, the student will complete a service learning, research, or problem-based experience under the guidance of a site supervisor within the agency or organization that is mutually agreed upon.
Prerequisites: All required HLSC courses, student in final semester of senior year.
Co-requisites: HLSC 492.
Nursing Courses

NURSE 101 Introduction to Nursing Credits: 2
This introductory two-hour course is designed to facilitate role socialization into professional nursing. Beginning with a brief historical overview of professional nursing, nursing is defined and the philosophical and practice standards of the profession are discussed. The student explores nursing's image and power bases in relationship to professional accountabilities and roles. The value and tenets of evidence-based care are emphasized and integrated with use of nursing process in professional, reflective decision-making. A review of educational paths in professional nursing leads the student into a comprehensive survey of the multiple roles, responsibilities, and requisite skills of the professional nurse today and in the future.

NURSE 120 Anatomy & Physiology I Credits: 4
This course examines the structure and function of the human body from the molecular to the organismal level as they interact among all body systems across the life span. Instructors also attempt to correlate course materials with the clinical aspects of the application of physiological knowledge. Co-requisite laboratory exercises provide practical application of theoretical concepts. In this first term of two-term course, molecular biology, biochemistry, cellular biology, and histology are studied as well as the integumentary, musculoskeletal, and nervous systems.

NURSE 125 Medical Terminology Credit: 1
This course is designed to provide the student with a foundation in medical terminology and the components of health records. Course content will include how medical terms are formed; how medical terms are applied to organs, body systems and pathological conditions; how common medical abbreviations are used; and how health records are organized and compiled.

NURSE 127 Drug Calculations Credit: 1
The drug calculation course is designed to introduce the student to methods of drug dosage calculation needed for medication administration in the health care setting. This course will review basic mathematical concepts, introduce medication specific terminology, discuss interpretation of medication orders, identify key elements of the medication label and enable the student to calculate appropriate and accurate drug dosages. 

Prerequisites: Admission to BSN Program.

NURSE 160 Anatomy and Physiology II Credits: 4
This course is a continuation of NURSE 120. Co-requisite laboratory exercises provide practical application of theoretical concepts. Physiologic systems including endocrine, cardiovascular, immune, respiratory, digestive, renal, and reproductive are studied as well as embryology and genetics.

Prerequisites: NURSE 120 (or HLSC 120).

NURSE 220 Fundamental Concepts & Skills Credits: 6
This course focuses on fundamental concepts, skills, and techniques that provide a foundation for clinical practice. The beginning student will identify factors that may influence the human system and applies the nursing process in health care setting using basic nursing interventions.

Prerequisites: Acceptance into Clinical Nursing Program.

NURSE 230 Health In Aging Credits: 2
This course focuses on the role of the nurse in promoting and maintaining the health of the older adult population. Evidence based nursing care of the older adult that includes physiological, psychological, pharmacological, and nutritional considerations as affected by theories on aging, socio-cultural influences, legal and ethical issues, and health care resources are explored. Nursing assessment, diagnoses, interventions, and outcomes specific to a diverse older adult population are discussed. Opportunities are provided for interaction with the older adult population.

Prerequisites: Admission into BSN program.

NURSE 250 Health Assessment for Nursing Practice Credits: 3
This course is designed to provide a systematic approach to the physiological, psychological, sociocultural and developmental assessment of individuals emphasizing findings considered to be within normal limits. The health history is emphasized as a tool for assessing mental and physical status. This course is designed for pre-licensure students. This three credit hour course consists of two didactic and one credit hour of clinical/lab per week.

Prerequisites: Admission into BSN program.

NURSE 252 Human Growth and Development Credits: 3
This course provides a basic introduction to the theory for human growth and development across the life span. Emphasis is placed upon the biological and the psychosocial aspects of growth and development. Content is organized in a modified chronological order dividing information into major stages of growth and development across the lifespan.

NURSE 255 Spanish for Health Care Pre-Professionals Credits: 3
This course focuses on conversational Spanish, medical terminology in Spanish and written/read Spanish. This course will provide the student with basic knowledge that will allow basic communication with clients who speak/read/write Spanish. This is a fast-paced course and will require practice of the language outside of the classroom in order to master the material presented.

Prerequisites: SPANISH 110.
NURSE 256 Pharmacology Credits: 3
This is a course in pharmacology that builds on prior knowledge of anatomy, physiology, chemistry, microbiology and pathophysiology. The major focus of the course is the basic and clinical concepts of pharmacology in evidence-based care. This course covers drug knowledge in the areas of pharmacotherapeutics, pharmacodynamics, pharmacokinetics, adverse reactions and contraindications, therapeutics indications and nursing implications.
Prerequisites: NURSE 127, NURSE 220, NURSE 230, NURSE 250, NURSE 395.

NURSE 262 Management of Adult Health I Credits: 5
This medical-surgical course focuses on utilization of the nursing process to the specific illnesses of the adult client in the acute care setting. High volume disease processes with associated nursing care are emphasized. The effects on the individual as a holistic system are explored. Skills are developed in caring for persons with biological, psychological and social system alterations to facilitate optimal client outcomes.
Prerequisites: NURSE 127, NURSE 220, NURSE 230, NURSE 250, NURSE 395.

NURSE 315 Health Literacy Credit: 1
In this course participants will explore the fundamentals of health literacy and demonstrate the impact on health outcomes. Students will be introduced to tools that health care professionals can use to assess the health literacy of their patients/clients. Tools and resources to provide health information at the correct health literacy level will be presented. Students will explore interventions that can increase an individual’s health literacy.

NURSE 326 Applied Physiology Credits: 3
In this course, clinical applications to physiologic concepts are highlighted and emphasized among all body systems across the life span. Discussion will include anatomical landmarks critical to health assessment and clinical manifestations related to physiological processes. This three credit hour course consists of two credit hours of didactic and one hour of lab work that will further demonstrate these concepts through dissection, laboratory experiments, and case studies.
Prerequisites: Anatomy Physiology 100 or 200 level course, or admission in the RN-BSN program, or with faculty permission

NURSE 342 Legal & Ethical Issues Credits: 2
This course is designed to investigate medical-legal issues and explore the implications that legal intervention and interpretation as well as litigation have on the scope of nursing practice and the delivery of patient care. Ethical standards of nursing practice and diverse individual and group values are explored, and various ethical systems, concepts and principles used in ethical decision making are introduced.
Prerequisites: NURSE 360, NURSE 362.

NURSE 345 Quantitative Analysis In The Health Sciences Credits: 3
This course focuses upon the skills required for the utilization of scientific findings in evidence-based care. The conceptual basis of descriptive and the inferential statistics found in the properties of the normal distribution, comprise the core of these skills. Using the normal distribution as a structure for understanding descriptive and inferential procedures, the course presents information necessary to the selection, computation and interpretation of basic statistics relevant to evidence based-care in the health sciences. Discussions of variables, measurement and tabular and graphic presentation of data precede the development of computation skills.
Prerequisites: MATH 110, MATH 116 or higher level math course.

NURSE 360 Management of Mental Health Credits: 4
This course is designed to introduce psychiatric mental health nursing through the study of sound psychiatric nursing theory. This course will focus on the nursing process framework, and the establishment and maintenance of a therapeutic nurse-client relationship. Emphasis is placed on assessment, therapeutic communication, neurobiological theory, and pharmacology. Nursing interventions will focus on all aspects of client care, communication, client/family teaching, and community resources and their practical application in a variety of clinical settings.
Prerequisites: NURSE 256, NURSE 262, NURSE 364, and NURSE 366.

NURSE 362 Management of Adult Health II Credits: 5
This medical-surgical course focuses on application of the nursing process to the delivery and the management of adult clients across the care continuum. This course builds on Adult Health I content to include high risk disease processes with associated nursing care. Emphasis is placed on the interaction between the client, family, nursing, and the environment to result in optimal client outcomes.
Prerequisites: NURSE 256, NURSE 262, NURSE 364, NURSE 366.

NURSE 364 Management of Maternal & Family Health Credits: 4
This course focuses on the application of the nursing process in the adaptation of the childbearing family. Emphasis is placed on adaptation during pregnancy, labor, birth and the postpartum period. Key concepts to be addressed include maternal, fetal, neonatal and family adaptation throughout the maternity cycle, common alterations during the cycle and culturally sensitive, family-centered nursing care. Maternal, fetal and neonatal physiology, pathophysiology and pharmacology will be addressed.
Prerequisites: NURSE 256, NURSE 262.
NURSE 366 Management of Child & Adolescent Health Credits: 4
This course focuses on the application of the nursing process in the care of the pediatric client. Emphasis is placed on providing developmentally appropriate care to healthy, acutely ill and chronically ill pediatric clients holistically within the context of a family system. Key concepts to be explored include age appropriate anatomy, physiology, pathophysiology, and pharmacology and their application to the nursing strategies of health assessment, health promotion, disease prevention, pain management, family-centered and culturally sensitive care.
Prerequisites: NURSE 256, NURSE 262.

NURSE 395 Pathophysiology Credits: 3
This course will focus on alterations in biological processes that affect the body’s internal homeostasis. A conceptual approach will be used to emphasize general principles of pathophysiology. The etiology, pathogenesis, clinical manifestations, and sequelae of various alterations of human structure and function will be examined. Knowledge from the basic and clinical sciences will be integrated.
Prerequisites: Admission to the Nursing major.

NURSE 401 Health Assessment for Clinical Practice Credits: 3
This course is designed to provide a systematic approach to the physiological, psychological, socio-cultural and developmental assessment of individuals emphasizing findings considered to be within normal limits. The health history is emphasized as a tool for assessing mental and physical status. This course is designed for students with previous health care education, including knowledge of biochemical functions of systems and concepts of normal. This course consists of guided self-study and on-site clinical practicum.
Prerequisites: Admission into RN-BSN program.

NURSE 403A Comparative Weight Loss I Credit: 1
This course explores the bio/psycho/social aspects of weight gain and obesity and compares common weight loss methods according to risk, benefits, and long term and short term implications. Correlations between lifestyle issues such as diet, sleep, stress, and exercise will be explored. Specific topics that will be addressed include risks of of overweight/obesity; common psychological issues for the overweight/obese; societal perceptions and barriers for overweight/obese individuals. This course consists of one hour if didactic work with one module per week for four weeks.

NURSE 403B Comparative Weight Loss II Credit: 1
This course explores the bio/psycho/social aspects of weight gain and obesity and compares common weight loss methods according to risk, benefits, and long term and short term implications. Correlations between lifestyle issues such as diet, sleep, stress, and exercise will be explored. Comparison of common medically recommended diets and diet programs and their efficacy/risks; exercise requirements for weight loss and weight maintenance. This course consists of one hour if didactic education with one module per week for four weeks.

NURSE 403C Comparative Weight Loss 3 Credit: 1
This course explores the bio/psycho/social aspects of weight gain and obesity and compares common weight loss methods according to risk, benefits, and long term and short term implications. Comparison of pharmacologic weight loss options ad their efficacy/risks; non-prescription medications/nutraceuticals for weight loss and their efficacy/risks; and bariatric surgeries and efficacy/risks. This course consists of one hour of didactic work with one module per week for four weeks.

NURSE 404 Introduction to Social Justice Credit: 1
This course is designed to increase a student’s knowledge regarding personal and social biases based on race, ethnicity, culture, religion, age, sex, sexual orientation, social and economic status. This course is designed for students with previous health care education, including knowledge of biochemical functions of systems and concepts of normal. This course consists of guided self-study and on-site clinical practicum.
Prerequisites: Admission into RN-BSN program.

NURSE 417 Information Systems and Technology for Improved Health Care Credits: 3
This course provides a basic introduction to health information technology across health care settings. Students will acquire an understanding of key concepts associated with health informatics and network models, systems and management strategies, health information strategic planning, clinical and public health application, data retrieval and analytics, public policy, research, and one’s professional responsibility to protect electronic health care records.

NURSE 419 Introduction to Social Epidemiology Credit: 1
This course is designed to increase a student’s knowledge of Social Epidemiology, which is the branch of epidemiology that studies the social determinants of health. Social processes will be explored that center on social networks, social support, social capital, social cohesion, and contributing ecological factors that influence health and wellness. Students will discover how social relationships and institutions, such as familial relationships, group culture, policies, and global economic forces, promote or undermine the health of populations. Students will also explore how social inequity indicators involving income, health insurance, and access to care inter-relate and often lead to negative health outcomes.
NURSE 462 Special Topics Credits: 2
This course is designed to explore current issues and trends influencing nursing practice. Economical, political, social and cultural issues are analyzed as they relate to interdisciplinary healthcare topics. Special Topics is aimed at preparing nursing students for immediate and long term milestones in their practice, which includes NCLEX licensure study, current clinical and practice issues, and exposure to advance nursing roles in practice and research.
Prerequisites: NURSE 465, NURSE 467.

NURSE 465 Management of Community and Public Health Nursing Credits: 4
This course focuses on applying the nursing process to the care of target community population and the individual. Emphasis is placed in health promotion and disease prevention. Discussion will include epidemiological, social, political, economic and cultural factors that influence the health of a population. The clinical components will consist of application of the nursing process to identify, prioritize, and meet the health needs of aggregates across the lifespan.
Prerequisites: NURSE 360, NURSE 362.

NURSE 467 Management of Critical & Emergent Care Credits: 5
This course focuses on applying the nursing process to the care of critically ill clients. Key concepts are: assimilation, integration, and prioritization of information to take decisive client-focused action. Students will manage appropriately the interface between client and technology so that a safe, respectful, and caring environment is established and maintained. Nursing knowledge of cardiovascular/hemodynamic monitoring and acute management of pulmonary, neurological, renal, gastrointestinal, shock, and traumatic emergencies is included.
Prerequisites: NURSE 360, NURSE 362.

NURSE 468 Effectiveness in Complex Health Systems Credits: 4
This leadership course focuses on effectiveness in complex health systems, by building upon acquired personal and interpersonal knowledge, skills and effectiveness in health outcomes. Organizational culture and systems, leadership and management theories, cultural competence, internal and external politics, and the impact of future managerial and societal paradigm changes on health care and health care delivery systems are presented. Knowledge of budgeting and health care finance, use of the legislative system, quality management, customer service, and leadership and management styles are explored. This four hour course consists of three hours of didactic/ discussion and one hour of clinical/ lab.
Prerequisites: NURSE 465, NURSE 467.

NURSE 468A Effectiveness in Complex Health Systems I Credit: 1.5
This first part of two leadership courses focuses on effectiveness in complex health systems by building upon acquired personal and interpersonal knowledge, skills, and effectiveness in health outcomes. The role of the registered nurse in advocating for clients in the health care system as well as political and regulatory processes is explored.
Prerequisites: NURSE 465, NURSE 467, and NURSE 468A.

NURSE 468B Effectiveness in Complex Health Systems II Credits: 2.5
This is the second part of two leadership courses and focuses on effectiveness in complex health systems by building upon acquired personal and interpersonal knowledge, skills, and effectiveness in health outcomes. Organizational culture and systems, leadership and management theories, cultural competence, and the impact of future managerial and societal paradigm changes on health care and health care delivery systems are presented. Knowledge of budgeting and health care finance, use of the legislative system, quality management, customer service, and leadership and management styles are explored.
Prerequisites: NURSE 465, NURSE 467, and NURSE 468A.

NURSE 472 Clinical Internship Credits: 5
This is the final clinical application course designed to complement didactic content from the core-nursing component of the baccalaureate program. The student will integrate and apply knowledge acquired in didactic course work and from previous clinical experiences. Emphasis is placed on effectiveness in personal, interpersonal, human health, and complex health systems. In collaboration with preceptors from the clinical unit, students will manage direct care for clients in health care settings.
Prerequisites: NURSE 465, NURSE 467.

Co-requisites: NURSE 468.

NURSE 476 Scientific Inquiry Credits: 3
This course focuses upon the development of inquiry skills necessary to identify relevant research-based literature and apply findings from research to practice. Students will develop an understanding of basic research concepts and evidence based practice in addition to skills in finding, appraising, and using health related literature.
Prerequisites: NURSE 345 or HLSC 345, STAT 235 or equivalent upper-level statistics course.
NURSE 481 Block I: Tools for Personal Effectiveness Credits: 6
This is the first in the four-course sequence. The student will discover that the foundation for professional nursing practice is personal effectiveness. Personal effectiveness is contingent upon an understanding of the historical roots of the profession, the meaning of professionalism, image and power bases, professional standards, moral development, political role socialization and professional values. Personal effectiveness is enhanced through critical reflection of personal perspectives and biases, valuing and use of theory and research, critical thinking and decision-making, informatics’ technology, the ability to manage time and stress, and the use of a career plan and informatics.

Co-requisites: ENGLISH 225.

NURSE 482 Block II: Tools for Interpersonal Effectiveness Credits: 3
This is the second in the four-course sequence. The student will discover that interpersonal effectiveness is a prerequisite to effective management of the care of humans and of teams. Interpersonal effectiveness is contingent on an understanding of professional value and caring, ethics in health care, legalities of practice, communication theories, and the dynamics of groups and teams. Interpersonal effectiveness is enhanced through the use of such skills as conflict resolution and negotiation, delegation, managing change, advocacy, team membership, group management, political awareness, technology utilization, and communication techniques. Content appropriate to these areas will be covered within this course.

Prerequisites: NURSE 481.

NURSE 483 Block III: Effectiveness in Human Health Outcomes Credits: 6
This is the third in a four-course sequence. It builds upon the personal and interpersonal skills acquired in the first two block courses and focuses on effectiveness in human health outcomes. The student will discover that effectiveness in human health outcomes is a primary goal in the delivery of an optimum continuum of health care that encompasses health promotion, disease prevention and illness care across the lifespan. Achieving effectiveness in human health outcomes across the wellness-illness continuum and the individual-to-community continuum is contingent on acquiring an understanding of epidemiology, levels of care, communicable disease control, case management, theories applicable to aggregate populations, cultural competence, evidence-based care, and information technology.

Prerequisites: NURSE 482.

NURSE 484 Block IV: Effectiveness in Complex Health Systems Credits: 6
This is the final course in the four-course sequence. Students will build upon the knowledge and skills acquired in the prior three course in order to examine the essentials of structure and designs, behavior and culture, synergy, workplace diversity, health care finance, and power and politics within complex health systems. Organizational theories, leadership, management and nursing’s social responsibility in an emerging global health care environment will also be explored.

Prerequisites: NURSE 483.

NURSE 485 Application to Practice I Credits: 3
This is the first of two clinical application courses designed to complement didactic content from the four-course block sequence (NURSE 481 - NURSE 484). Students will integrate an increasingly complex knowledge base with an emphasis on developing effectiveness: personally, interpersonally, and in the health management of populations of clients within systems of community and professional organizations and practice settings. Student cohort groups, in collaboration with personnel from health related organizations and faculty, assess population health needs, identify outcomes and develop action plans based on real need. The practice experience learning processes and outcomes will be collective and provide solutions for the health care community.

Prerequisites: NURSE 481.

Co-requisites: NURSE 482, NURSE 483.

NURSE 486 Application to Practice II Credits: 3
This is the second of two Practicum application courses designed to complement didactic content from the four-course block sequence (NURSE 481 - NURSE 484) to integrate complex knowledge for personal and interpersonal development in the health management of populations of clients. Student cohort teams will apply new skills and knowledge to real issues and problems in the delivery of nursing care with an emphasis on teamwork performance and action plan implementation and outcome evaluation. The processes and outcomes of those experiences will be collaborative and provide solutions for the health care community.

Prerequisites: NURSE 483, NURSE 485.

Co-requisites: NURSE 484.

NURSE 490 Special Topics Credits: 1-9
A course of study in a special area of interest in nursing under individual faculty direction.

NURSE 490AP2 Special Topics Credits: 1-9
Special Topics

NURSE 5503A Comparative Weight Loss I Credit: 1
This course explores the bio/psycho/social aspects of weight gain and obesity and compares common weight loss methods according to risk, benefits, and long and short term implications. Correlations between lifestyle issues such as diet, sleep, stress, and exercise will be explored. Specific topics that will be addressed include risks of overweight/obesity; common psychological issues for the overweight/obese; societal perceptions and barriers for overweight/obese individuals.
NURSE 5503B Comparative Weight Loss 2 Credit: 1
This course explores the bio/psycho/social aspects of weight gain and obesity and compares common weight loss methods according to risk, benefits, and long and short term implications. Correlations between lifestyle issues such as diet, sleep, stress, and exercise will be explored. Common medically recommended diets and diet programs will be compared on the basis of their efficacy/risks; exercise requirements for weight loss, and weight maintenance.

Prerequisites: Nurse 5503A.

NURSE 5503C Comparative Weight Loss 3 Credit: 1
This course explores the bio/psycho/social aspects of weight gain and obesity and compares common weight loss methods according to risk, benefits, and long and short term implications. Compare pharmacologic weight loss options and their efficacy/risks; non-prescription medications/nutraceuticals for weight loss and their efficacy/risks; and bariatric surgeries and efficacy/risks.

Prerequisites: Nurse 5503A.

NURSE 5508 Advanced Growth and Development Credit: 1
This course is designed to provide students with advanced comprehensive knowledge regarding the physical growth and psychosocial development from birth to 21 years of age within the context of the child's family and community. Analysis and interpretation of growth and development patterns will be examined as they relate to primary health care of children, birth to 21 years of age aiding in the determination of the health status.

NURSE 5509 Technical Foundations of Advanced Practice Credit: 1
This course will provide students with the advanced informatics skills necessary to develop an evidence-based reflective practice. Self-paced progressive modules will allow students to use advanced health care technologies to develop and apply informatics skills so that they can manage and communicate advanced clinical information and knowledge.

NURSE 5515NE Role of the Nurse Educator Credits: 2-3
This course will explore the role of the nurse educator within the academic, acute care, and outpatient settings. Emphasis will be on the development, evaluation, differences and implementation of the nurse educator in the functional roles. Students are introduced to the NLN Core Competencies of Nurse Educators to evaluate their own practice. Ethical and legal issues related to practice as a nurse educator are discussed.

NURSE 5516 Curriculum Development in Nursing Credits: 3
This course prepares the nurse educator to develop, review, and evaluate nursing curricula. Emphasis will be placed on theoretical foundations, principles of program evaluation, and issues in curriculum design.

Prerequisites: NURSE 5515NE.

NURSE 5517 Teaching Strategies in Nursing Credits: 2
This course examines principles and techniques in teaching nursing. Techniques concerning classroom management, writing objectives and implementing active teaching strategies are explored. Emphasis is placed on respecting the diverse learning needs of students in the educational environment.

Prerequisites: NURSE 5515NE or permission of instructor.

Co-requisites: NURSE 5515NE.

NURSE 5526 Health Promotion Across the Lifespan Credits: 3
This course is designed to provide students with a strong knowledge base related to concepts of health promotion and health protection for clients across the life span. Clients are conceptualized as individuals, families and populations. An application of various developmental theories for the child, adult, older adult and family will provide the basis to individualize health-care needs for various age and family groups. Core concepts for the course include: theories of health and health promotion and protection, reasoned action, health belief model, epidemiology, disease and injury prevention, health education, growth and development, nutrition, and family systems theory.

Prerequisites: NURSE 5550 (or co-requisite).

NURSE 5527 Cultural Diversity & Values Credits: 3
This course explores how each individual's life context (social, political, historical, and economic) and culture construct their individual's values, beliefs and behaviors. Applying multi-disciplinary concepts and theory, the course expands students' basic knowledge of cultural diversity, approaches to culture and cultural competency, values and ethics, theories of moral development, cultural assessment skills, and ethical decision-making models for clinical practice. Ethical dilemmas created by differing cultural values and the role of health professionals in leading ethical decision-making are explored. Core concepts for the course include: cultural awareness, cultural knowledge, cultural skill, cultural encounter, values clarification, and ethical analysis.

NURSE 5528 Healthcare Policy & Advocacy Credits: 3
This course is designed to focus on the integral relationship between health care policy and advocacy. Content will include principles and processes related to U.S. health policy and politics in relation to the overall system and issues of cost, quality and access; interrelationships between policy, political trends, and quality of care and access at the point of service; elimination of health care disparities, ethical and obligatory values related to the role of the health care professional.
NURSE 5529 Ethics in Advanced Practice & Research Credits: 3
Advanced nursing practice, ethics, and research are intricately connected. This course is designed to explore the content necessary to apply ethical principles to complex issues encountered in advanced nursing practice. Essential ethical principles include assuring the common good through the continual presence of respect for human dignity, autonomy, beneficence, and distributive justice, as those apply to the integration of advanced practice and research. Graduate prepared nurses are responsible for impacting individual care, the care of populations, and environmental health, therefore advocacy for social justice and ethical health care policy are also discussed.

NURSE 5531 Graduate Pharmacology Specialty Credits: 2
This course builds on principles of pharmacology learned in Pharmacotherapeutics for Advanced Practice Nursing. This course focuses on principles and practices necessary for safe prescribing and medication management of a specialty population (e.g., pediatrics, acute care, mental health).
Prerequisites: NURSE 5548, NURSE 5549, NURSE 5550.
Co-Requisites: NURSE 5532.

NURSE 5532 Pediatric Acute Care I Credits: 3
This is the first of two courses in which the management of complex acute, critical, and chronically ill patients with urgent and emergent conditions is explored. The focus is on alterations in pathophysiology, advanced assessment, diagnosis, and collaborative management of infants, children and adolescents with selected episodic/chronic health problems in acute/critical care.
Prerequisites: NURSE 5548, NURSE 5549, NURSE 5544 NURSE 5547.
Co-requisites: Advanced Clinical Practice Practicum I; Graduate Pharmacology Specialty.

NURSE 5533 Pediatric Acute Care II Credits: 3
This is the second of two courses in which the management of complex acute, critical, and chronically ill patients with urgent and emergent conditions is explored. The focus is on alterations in pathophysiology, advanced assessment, diagnosis, and collaborative management of infants, children and adolescents with selected episodic/chronic health problems in acute/critical care.
Prerequisites: Pediatric Acute Care I and Advanced Clinical Practice Practicum I.
Co-requisites: Advanced Clinical Practice Practicum II.

NURSE 5534 Advanced Practice Clinical Practicum I (Pediatric Acute Care) Credits: 4
This practicum course focuses on the clinical management of the pathological alterations presented in the Pediatric Acute Care I course. The course is designed to provide clinical experience in the development and application of the roles of the pediatric acute care nurse practitioner. The clinical setting will be used for application and evaluation of pathophysiologic and psychosocial concepts in implementing and evaluating care in the clinical settings.
Prerequisites: NURSE 5544, NURSE 5547, NURSE 5548, NURSE 5549.
Co-requisites: NURSE 5532, NURSE 5531.

NURSE 5535 Advanced Practice Clinical Practicum II (Pediatric Acute Care) Credits: 4
The emphasis of this course is on the integration of theory, assessment, and advanced therapeutics in high acuity patient care. The student will gain the necessary management skills to provide specialized patient centered care across the entire pediatric age spectrum from complex chronic illness to physiologic deterioration and life threatening instability, including palliative and end of life care, while incorporating the family as a full partner in decision making.
Prerequisites: NURSE 5532, NURSE 5534.
Co-requisites: NURSE 5533.

NURSE 5544 Advanced Health Assessment Skills Credits: 2
This course provides a systematic approach to collection and documentation of advanced health/physical assessment, including the comprehensive history, physical, and psychological assessment of signs and symptoms, pathophysiological changes, psychosocial and cultural variations of the patient. The assessment should be conducted within the context of the family and community, incorporating cultural and developmental variations, and the needs of the patient.
Prerequisites: Undergraduate Health Assessment Course.

NURSE 5546 Foundations of Family Psychiatric Nursing Advanced Practice Credits: 3
This foundational course focuses on factors impacting mental health and the development of psychiatric disorders. The scope of practice and roles of the Psychiatric Mental Health Nurse Practitioner will be introduced. Both pharmacological and nonpharmacological therapeutic modalities will be explored. Comprehensive psychiatric evaluation skills will be developed. Attention will be given to the development of therapeutic relationships, assessment considerations across the lifespan, crisis evaluation and different types of diagnostic tools and approaches. Diagnostic reasoning skills will be applied to mental illness and students will begin to integrate assessment finding into diagnoses in the Diagnostic and Statistical Manual of Mental Disorders.
Prerequisites: NURSE 5547M.
Co-requisites: NURSE 5547M.
NURSE 5547 Diagnostic Reasoning/Advanced Assessment Credits: 3
This course emphasizes utilization of advanced health/physical assessment skills, interpretation of diagnostic testing and lab values, validation, documentation and analysis of findings through diagnostic reasoning to develop and process differential diagnosis.
Prerequisites: NURSE 5544.

NURSE 5547A Diagnostic Reasoning/Advanced Assessment Credits: 3
This course emphasizes utilization of advanced health/physical assessment skills, interpretation of diagnostic testing and lab values, validation, documentation and analysis of findings through diagnostic reasoning to develop and process differential diagnosis. The course consists of two hours of didactic/discussion and one hour of clinical/lab credit (45 clock hours).
Prerequisites: NURSE 5544.

NURSE 5547C Diagnostic Reasoning/Advanced Assessment Credits: 3
This course emphasizes utilization of advanced health/physical assessment skills, interpretation of diagnostic testing and lab values, validation, documentation and analysis of findings through diagnostic reasoning to develop and process differential diagnosis. The course consists of two hours of didactic/discussion and one hour of clinical/lab credit (45 clock hours).
Prerequisites: NURSE 5544.

NURSE 5547F Diagnostic Reasoning/Advanced Assessment Credits: 3
This course emphasizes utilization of advanced health/physical assessment skills, interpretation of diagnostic testing and lab values, validation, documentation and analysis of findings through diagnostic reasoning to develop and process differential diagnosis. The course consists of two hours of didactic/discussion and one hour of clinical/lab credit (45 clock hours).
Prerequisites: NURSE 5544.

NURSE 5547M Diagnostic Reasoning/Health Assessment Credits: 3
This course emphasizes utilization of advanced health/physical assessment skills, interpretation of diagnostic testing and lab values, validation, documentation and analysis of findings through diagnostic reasoning to develop and process differential diagnosis.
Prerequisites: NURSE 5544.

NURSE 5547N Advanced Assessment of the Neonate Credits: 3
This course is designed to provide a systematic approach to advanced assessment of physiological, psychological, socio-cultural, developmental and spiritual assessment of the fetus, the mother during the prenatal period, and the neonate. This course builds on basic health assessment skills and emphasizes advanced assessment skills, diagnostic test interpretation, validation, documentation and analysis of perinatal, genetic and embryological factors impacting neonatal health and development.
Prerequisites: Admission into the MSN NNP program.

NURSE 5547NE Health Assessment & Clinical Reasoning for Nurse Educators Credits: 4
This course is designed to provide a systematic approach to teaching physiological, psychological, sociocultural, developmental and spiritual assessment. The course builds on basic health assessment skills and emphasizes: comprehensive assessment skills, interpretation of laboratory results, validation of findings, documentation and analysis of assessment findings; and teaching strategies – teaching methodologies, clinical application, and student evaluation.
Prerequisites: NURSE 401, NURSE 5548.

NURSE 5547PM Diagnostic Reasoning/Advanced Assessment Credits: 2
2 credit hours (1 didactic; 1 lab for a minimum of 45 contact/clock hours). This course is designed to provide a systematic approach to the advanced assessment of physiological, psychological, socio-cultural, developmental and spiritual assessment of individuals. The post-MSN student will build on previous advanced assessment skills and content with emphasis on adding advanced physical assessment skills, lab work interpretation, validation, documentation and analysis of assessment findings appropriate to their desired role area. Students will meet the same outcome standards of the track in which they are currently enrolled.
Prerequisites: Free-standing Health Assessment Course.

NURSE 5547W Diagnostic Reasoning/Advanced Assessment Credits: 3
This course emphasizes utilization of advanced health/physical assessment skills, interpretation of diagnostic testing and lab values, validation, documentation and analysis of findings through diagnostic reasoning to develop and process differential diagnosis. The course consists of two hours of didactic/discussion and one hour of clinical/lab credit (45 clock hours).
Prerequisites: NURSE 5544.

NURSE 5548 Advanced Pathophysiology Across the Lifespan Credits: 3
Advanced pathophysiology is the study of the alterations of normal physiological functioning in cellular, tissue, organ and organ systems. These alterations form the basis for understanding a variety of pathophysiological conditions and the manifestations and impact of abnormal physiological functioning on clients across the life-span. Advanced pathophysiology deals with both generalized processes and major organ system dysfunctions. This course consists of three hours of lecture/discussion per week and individual self study.
NURSE 5548N Physiology/Pathophysiology Of The Neonate Credits: 2
Concepts of embryology, neonatal physiology and pathophysiology are used to provide an in-depth study of normal functioning and alteration of normal physiological functioning in cellular, tissue, organ, and organ systems. Alterations form the basis for understanding a variety of pathophysiological conditions and the manifestations and impact of abnormal physiological functioning on neonates. Both generalized processes and major system dysfunctions are addressed.
Prerequisites: Admission to the Neonatal Nurse Practitioner Track or consent of the instructor. NURSE 5548 Advanced Pathophysiology Across the Lifespan.

NURSE 5549 Pharmacology Across the Life Span for Advanced Nursing Practice Credits: 3
This is a course in clinical pharmacotherapeutics that builds on prior knowledge of drug classification, actions, interactions and adverse drug reactions. The major focus of the course is the pharmacotherapeutic prescribing of medications for primary health care management across the life span by advanced practice nurses. The Missouri laws for advanced practice nurse prescriptive authority will be addressed. This course consists of three hours of lecture/discussion/in-class clinical module work per week.
Prerequisites: NURSE 5548, NURSE 5549R.

NURSE 5549N Advanced Assessment of the Neonate Credits: 3
This course is designed to provide a systematic approach to advanced assessment of physiological, psychological, socio-cultural, developmental and spiritual assessment of the fetus, the mother during the prenatal period, and the neonate. This course builds on basic health assessment skills and emphasizes advanced assessment skills, diagnostic test interpretation, validation, documentation and analysis of perinatal, genetic and embryological factors impacting neonatal health and development.
Prerequisites: Admission into the MSN NNP program.

NURSE 5549R Pharmacokinetics & Pharmacodynamics: Application for Graduate-Prepared Nurses Credit: 1
This course builds on prior knowledge of anatomy, physiology, chemistry, microbiology, pathophysiology and pharmacology. Drug classes are reviewed in preparation for advanced clinical judgment. The principles for decision-making about drug selection, use and monitoring are explored. General principles of pharmacokinetics and pharmacodynamics are discussed. Pertinent patient education concerning select pharmacotherapeutics agents is reviewed.
Prerequisites: Admission to UMKC School of Nursing.

NURSE 5550 Theoretical Foundations in Nursing Credits: 3
This course focuses on critical analysis of theory and the utilization of various levels of nursing and related theories as a base for nursing at the graduate level. It further examines the inter-relationship of theory, research and practice in the development of a scientific body of nursing knowledge. The student will analyze methods by which knowledge is gained and validated. Students will synthesize several different theories from which to form the basis of their practice. Relationships of theory, practice and research will be discussed.
Prerequisites: Completion of BSN.

NURSE 5551A Pharmacology for Women's Health: Lifestyle and Preventive Healthcare Credits: 2
This course in clinical pharmacology builds on current knowledge of drug classification, actions, interactions and adverse drug reactions. The focus is the use of medications by advanced practice providers in the management of preventive healthcare and lifestyle choices in women's health. Emphasis will be placed on the evidence based pharmacological management, benefits, effectiveness, and adverse effects on selected vitamins, immunizations and alternative therapies such as herbs and botanical products. Drugs to promote optimum weight loss, nicotine replacement therapies and drugs of abuse will also be discussed. This four-week course consists of online discussion, case studies and quizzes.
Prerequisites: NURSE 5549.

NURSE 5551B Pharmacology for Women's Health: Common Medical Conditions Credits: 2
This course in clinical pharmacology builds on current knowledge of drug classification, actions, interactions, and adverse drug reactions. The focus is the use of medications by advanced practice providers in the management of common medical conditions in women's health. Emphasis will be placed on the evidence based pharmacological management of women with medical conditions such as cardiovascular conditions, autoimmune disorders, diabetes, gastrointestinal conditions, lower urinary tract disorders, drugs that promote mental health, dermatological conditions, and an overview of chemotherapeutics. This four-week course consists of online discussion, case studies and quizzes.
Prerequisites: NURSE 5549.

NURSE 5551C Pharmacology for Women's Health: Gyn/Preg/Lact/Postpart Credits: 2
This course in clinical pharmacology builds on current knowledge of drug classification, actions, interactions, and diverse drug reactions. The focus is the use of medications by advanced practice providers in the management of specific gynecologic and obstetrical conditions associated with the female reproductive organs such as contraception, sexually transmitted infections, pelvic and menstrual disorders, vaginal and vulvar disorders, sexual dysfunction, and postmenopause. Discussions will also include the pharmacologic management of a variety of conditions that can occur during pregnancy, lactation, and postpartum. This four-week course consists of online discussion, case studies, and quizzes.
Prerequisites: NURSE 5549.
NURSE 5555 Nursing Research Credits: 3
This course is designed to prepare graduate nursing students to utilize research findings in order to provide high quality health care and improve nursing practice. This knowledge includes fundamentals of research methods, procedures for the evaluation of research and the application of research findings to clinical practice and organizational decision making.

Prerequisites: NURSE 5550, a graduate level statistics course.

NURSE 5556 Program Evaluation Credits: 3
This survey course is designed to introduce students to the philosophy, theory, and methodology of program evaluation. The end point of this course is that graduate students will be able to design, implement, and evaluate research, education and/or social programs within the context of their primary focus of study (i.e. clinical or role).

NURSE 5557 Qualitative Methods in Nursing Research Credits: 3
This course is designed to provide the student with the skills necessary to the understanding and conduct of qualitative research. Various methods, including ethnographic, phenomenologic, historic, grounded theory and aesthetic inquiry are presented and discussed. Emphasis is placed upon the appropriateness of each method for different research problems. This course consists of three hours of lecture/discussion per week.

Prerequisites: NURSE 5550, NURSE 5555.

NURSE 5558 Research Design Credits: 3
This course is designed to provide the student with experience in the development of a research proposal. Research skills acquired in previous courses will be synthesized to produce the components of a proposal.

Prerequisites: NURSE 5555.

NURSE 5559 Evaluation Methods in Nursing Credits: 2
This course examines principles of assessment and evaluation in nursing education. Techniques concerning formative and summative evaluation, test writing, clinical evaluation, and test item analysis will be explored. Emphasis is placed on respecting the diverse learning needs of the students in the educational environment.

Prerequisites: N5517 Teaching Methods in Nursing or permission of instructor.

NURSE 5564A Primary Care of Adults I Credits: 5
This course is designed to prepare nurse practitioner students to manage common health problems of adults. The focus is on developmentally appropriate preventive health care and management of common acute/episodic illnesses. Students will integrate role competencies, professional standards, and legal requirements essential to the NP role. Core content includes differential diagnosis, therapeutic management, adherence, anticipatory guidance, patient/family education, legal and professional issues, standards of practice, and advanced practice role competencies.

Prerequisites: NURSE 5526, NURSE 5548, NURSE 5550 and NURSE 5547A.

Co-requisites: NURSE 5549, NURSE 5555.

NURSE 5564C Primary Care of Children I Credits: 5
This course is designed to prepare nurse practitioner students to manage common pediatric health problems. The focus is on evidence-based developmentally appropriate preventive health care and management of common acute/episodic illnesses. Students will integrate role competencies, professional standards, and legal requirements essential to the NP role. Core content includes differential diagnosis, therapeutic management, adherence, anticipatory guidance, patient/family education, legal and professional issues, standards of practice, and advanced practice role competencies. Clinical practice and clinical seminar comprise the clinical experience.

Prerequisites: NURSE 5526, NURSE 5547C, NURSE 5548, NURSE 5550.

Co-requisites: NURSE 5549, NURSE 5555.

NURSE 5564F Primary Care of Families I Credits: 5
This course is designed to prepare nurse practitioner students to manage common health problems across the life span. The focus is on developmentally appropriate preventive health care and management of common acute/episodic illnesses. Students will integrate role competencies, professional standards, and legal requirements essential to the NP role. Core content includes differential diagnosis, therapeutic management, adherence, anticipatory guidance, patient/family education, legal and professional issues, standards of practice, and advanced practice role competencies.

Prerequisites: NURSE 5526, NURSE 5547F, NURSE 5548, NURSE 5550.

Co-requisites: NURSE 5549, NURSE 5555.
NURSE 5564M Family Psychiatric Nursing Advanced Practice I Credits: 5
This course is designed to prepare students to manage psychiatric illness in individuals. Emphasis will be given to psychiatric disorders commonly encountered such as thought disorders, mood disorders, anxiety disorders, personality disorders and substance abuse. Special attention will be given to illnesses occurring in childhood and older age. Focus will be on strengthening mental health diagnostic skills and management of psychiatric illness in individuals. Students will learn to identify and treat short term mental health issues, chronic disorders and acute exacerbations. Psychotropic medication management skills will be developed. Students will begin their clinical hours during this course with a minimum of 165 in total. Patients seen in clinical settings will be across the lifespan.
Prerequisites: NURSE 5526, NURSE 5546, NURSE 5547M, NURSE 5548, NURSE 5550.
Co-requisites: NURSE 5549.

NURSE 5564N Neonatal Nursing I Credits: 3
This course integrates the physiologic, pharmacologic, and assessment skills and principles in determining appropriate care of the ill neonate. This course covers case management of respiratory, cardiovascular and neurologic disorders. Current research and evidenced-based practices are used as the course framework. The effects of critical conditions on the growth and development of the neonate, including subsequent chronic health problems as well as the short and long term consequences to the child’s family are emphasized. The use of specific interventions and diagnostic procedures are demonstrated and applied in laboratory/clinical settings.
Prerequisites: NURSE 5549N.
Co-requisites: NURSE 5566N.

NURSE 5564NE Clinical for Nurse Educators Credits: 5
This clinical course provides students an opportunity to develop advanced knowledge and clinical skills in an acute care clinical setting. Clinical practice hours will be spent in a variety of settings providing the students the opportunity to provide clinical education and advanced patient care in a specialty population. The students demonstrate their clinical development and clinical reasoning skills by evaluating the process of nursing care (assessment, intervention/management, evaluation) from an evidenced-based perspective.
Prerequisites: All required courses except NURSE 5572 and NURSE 5598.

NURSE 5564W Primary Health Care of Women Credits: 5
This course is designed to prepare the woman’s health nurse practitioner student to manage the primary health care of women. The course will focus on the etiology, symptomatology, diagnosis and management of gynecologic and non-gynecologic primary health care problems throughout the lifespan. Emphasis will be placed on caring for women within a holistic, collaborative framework and recognizing how the changing roles of women in today’s society can affect their lives and their health status. Concepts, theories and evidence-based practice related to health promotion and maintenance, and illness prevention are addressed.
Prerequisites: NURSE 5526, NURSE 5547W, NURSE 5548, and NURSE 5550; NURSE 5549 and NURSE 5555 (pre or co-req).

NURSE 5566A Primary Care of Adult-Gerontology II Credits: 5
This course is designed to prepare adult-gerontology nurse practitioner (NP) students in the care and management of adults with chronic health problems. The focus is on the differentiation and therapeutic management of chronic health problems encountered in various health care settings. The course enables students to develop a research and theory based practice for disease state management of health care for adults. Core concepts: theories, grief and loss, chronicity and pain; and advanced nursing skills.
Prerequisites: NURSE 5549, NURSE 5564A.

NURSE 5566C Chronic Child Health Care (Clinical II) Credits: 5
This course is designed to apply knowledge and skill to advanced evidence-based nursing care of children experiencing complex/chronic health problems. The organizing framework is case management of chronic health states. Students will apply several theoretical models to acute and chronic conditions of children at different developmental stages representing various socioeconomic and cultural groups, in primary or specialized care settings. Core concepts are stress, coping, adaptation, pain management, grief, loss, nutritional support, ethical decision-making, and symptom management.
Prerequisites: NURSE 5549 and NURSE 5564C.

NURSE 5566F Primary Care of Families II Credits: 5
This course is designed to prepare family nurse practitioner (NP) students in the care and management of families with chronic health problems. The focus is on the differentiation and therapeutic management of chronic health problems encountered in various health care settings. The course enables students to develop a research and theory based practice for disease state management of health care for families. Core concepts: theories, grief and loss, chronicity and pain; and advanced nursing skills.
Prerequisites: NURSE 5549, NURSE 5564F.
NURSE 5566M Family Psychiatric Nursing Advanced Practice II Credits: 5
In this course, management of mental health problems will expand beyond the individual to include families, groups and the greater community. This course will emphasize development of psychotherapy skills by the advanced practice nurse. Theoretical foundations and intervention approaches for individuals, group and family therapies will be explored. Unique or modified approaches for pediatric and older adult populations will be covered. Students will be exposed to the common psychotherapy modalities and will identify which approaches they will adopt and utilize in psychotherapy clinical experiences. Clinical management will also expand from outpatient settings to include crisis evaluation and inpatient care. 
Prerequisites: NURSE 5549, NURSE 5546, NURSE 5564M.

NURSE 5566N Neonatal Nursing II Credits: 3
This course integrates physiologic, pharmacologic, and assessment skills and principles determining appropriate care of the ill neonate. This course covers case management of gastrointestinal, renal, endocrine, hematologic, orthopedic, ophthalmologic, dermatologic and immune disorders. Current research and evidenced-based practices are used as the course framework. The effects of critical conditions on the growth and development of the neonate, including subsequent chronic health problems as well as the short and long term consequences of the child’s family are emphasized. The use of specific interventions and diagnostic procedures are demonstrated and applied in laboratory/clinical settings.
Prerequisites: NURSE 5549.

NURSE 5566W Care of the Childbearing Woman Credits: 5
This course is designed to prepare the woman's health nurse practitioner students in the care and management of the childbearing woman. The focus of the course is on the normal adaptation and pathologic alterations throughout the childbearing period. Emphasis is placed on management of women and families from preconception through the puerperium. Concepts, theories and evidence-based research related to the biopsychosocial and cultural aspects of childbearing are addressed. Core concepts include adaptation, stress and coping, grief and loss, pain and symptoms management.
Prerequisites: NURSE 5564W.

NURSE 5572 Advanced Nursing Practice: Synthesis Practicum Credits: 5
This course is a concentrated, experiential, supervised clinical opportunity to function in an advanced practice nursing role. The focus of this intensive clinical practicum is on the synthesis and application of previous theory and clinical courses under the guidance of a preceptor. Students will be expected to apply advanced clinical decision-making skills and evidence-based practice guidelines to the assessment, management, and evaluation of complex healthcare problems. Core concepts include advanced nursing practice, functional role responsibilities, ethical, legal and health policy issues, and activities with the emphasis on their relationship to patient outcomes. The patient systems for this experience include individuals and families within the context of community.
Prerequisites: All required courses except NURSE 5598, NURSE 5599, and electives.

NURSE 5572II Preceptorship II Credits: 5
This course provides opportunities to apply knowledge and skills from advanced nursing role, theory, research and neonatal clinical courses to the advanced therapeutic management of high-risk neonates. This is the second of two preceptorship courses which builds upon acquired clinical skills of NURSE 5572NI and can be taken concurrently or in consecutive semesters. Emphasis is placed on therapeutic measures within a conceptual framework or model applying findings from research relevant to comprehensive care of neonates. The client system will be the neonate and family.
Co-requisites: NURSE 5572NI.

NURSE 5572M Advanced Nursing Practice: Synthesis Practicum Credits: 5
This course is a concentrated, experiential, supervised clinical opportunity to function in a psychiatric advanced practice nursing role. The focus of this intensive clinical practicum is on the synthesis and application of previous theory and clinical courses under the guidance of a preceptor. Students will be expected to apply advanced clinical decision-making skills and evidence-based practice guidelines to the assessment, management, and evaluation of complex healthcare problems. Core concepts include advanced nursing practice, functional role responsibilities, ethical, legal and health policy issues, consultation/collaboration and activities with the emphasis on their relationship to patient outcomes. A minimum of 330 clinical hours is required. Patients seen in clinical settings will be across the lifespan.
Prerequisites: All required courses except NURSE 5598.

NURSE 5572NE Synthesis Practicum for Nurse Educators Credits: 3
3 Credit Hours (3 clinical for a minimum of 180 contact/clock hours). This course provides the student a concentrated, experiential opportunity to function in the role as nurse educator. Core concepts include functional role responsibilities, teaching strategies and theory utilization. Emphasis is placed on professional role development and the concept of life-long learning.
Prerequisites: All required courses except NURSE 5598.

NURSE 5572NI Preceptorship I Credits: 5
This course provides opportunities to apply knowledge and skills from advanced nursing role, theory, research and neonatal clinical courses to the advanced therapeutic management of high-risk neonates. This is the first of two preceptorship courses. The other course, NURSE 5572II, can be taken concurrently or in consecutive semesters. Emphasis is placed on therapeutic measures within a conceptual framework or model applying findings from research relevant to comprehensive care of neonates. The client system will be the neonate and family.
Prerequisites: NURSE 5564N, NURSE 5566N.

NURSE 5581A Simulation in Healthcare-State of the Science, Ethical, and Theoretical Foundations Credit: 1
This course provides an introduction to principles, ethics, and theory guiding simulation education in healthcare. Emphasis is on analysis of the evidenced-based research related to simulation, and regulatory processes through interprofessional discussions.
NURSE 5581B Simulation in Healthcare-Development and Curricular Integration Credit: 1
This course introduces students to simulation center design, scenario development, and curriculum integration. Through interprofessional collaboration, students will examine the process of developing simulations and developing realistic, measurable objectives.

NURSE 5581C Simulation in Healthcare-Debriefing and Evaluation Methods Credit: 1
This course prepares students to evaluate learning in the simulation environment and facilitate debriefing. Evaluation methods based on simulation learning domains and objectives are explored.

NURSE 5583A Accreditation in Nursing Education -Procedural Overview and Accreditation Credit: 1
The course provides a foundational understanding of the accreditation process for the Accreditation Commission for Education in Nursing (ACEN) and Commission on Collegiate Nursing Education (CCNE). Procedural overview includes discussion on the accreditation self-study process, standards, on-site evaluation, and the accreditation decision-making process and accreditation. Emphasis will be placed on guidelines for assessment of student learning outcomes and preparation for continuing review.

NURSE 5583B Accreditation in Nursing Education -Accreditation Commission for Education in Nursing (ACEN) Credit: 1
This course builds upon foundational principles of accreditation by exploring the process as related to the Accreditation Commission for Education in Nursing (ACEN). Emphasis is placed on how to implement the accreditation process to successfully complete a self-study report.

**Prerequisites:** N5583A or permission of instructor.

NURSE 5583C Accreditation in Nursing Education -Commission on Collegiate Nursing Education (CCNE) Credit: 1
This course builds upon foundational principles of accreditation by exploring the process as related to the Commission on Collegiate Nursing Education (CCNE). Emphasis is placed on how to implement the accreditation process to successfully complete a self-study report.

**Prerequisites:** N5583A or permission of instructor.

NURSE 5587 Research Utilization in Nursing Credits: 3
This course will prepare nurses to implement a research utilization model to validate practice. The theoretical basis for research utilization and practical instances of its application in nursing will be examined. Opportunities will be provided to develop a research utilization plan to address a clinical area of practice.

**Prerequisites:** NURSE 5550, NURSE 5555.

NURSE 5590 Directed Scholarly Activity Credits: 1-2
This course provides individualized experiences to prepare the student for their comprehensive examination.

**Prerequisites:** Permission of the instructor.

**Co-requisites:** Completion of core course requirements.

NURSE 5597A Independent Study in Nursing/Patient Care-Elective Credits: 1-6
Guided study of selected topics and/or areas in nursing and/or patient care.

**Prerequisites:** NURSE 5550.

NURSE 5597AHA Independent Study in Nursing Credits: 1-6
NURSE 5597AS Independent Study In Nursing Credits: 1-6
Independent Study In Nursing
NURSE 5597B Independent Study in Nursing/Patient Care-Equivalent Credits: 1-6
Guided study of selected topics and/or areas in nursing and/or patient care.

**Prerequisites:** NURSE 5550.

NURSE 5597EPR Independent Study in Nursing Credits: 1-6
NURSE 5597HA Independent Study in Nursing Credits: 1-6
NURSE 5597LS Independent Study In Nursing Credits: 1-6
NURSE 5597P1 Independent Study in Nursing Credits: 1-6
NURSE 5597P2 Independent Study in Nursing Credits: 1-6
NURSE 5597PCF Independent Study In Nursing Credits: 1-6
NURSE 5597PF Independent Study In Nursing Credits: 1-6
NURSE 5597PN Independent Study Nursing Credits: 1-6
NURSE 5597ST Independent Study In Nursing Credits: 1-6
NURSE 5597WLA Indep Study in Nursing Credits: 1-6
Indep Study in Nursing
NURSE 5597WLB Indep Study in Nursing Credits: 1-6
Indep Study in Nursing
NURSE 5597WLC Indep Study in Nursing Credits: 1-6
Indep Study in Nursing

NURSE 5598 Directed Research Credits: 1-6
Individual research project for students to utilize beginning research skills in designing and conducting independent studies under the direction of the faculty.
Prerequisites: NURSE 5550, NURSE 5555.

NURSE 5599 Research Thesis Credits: 1-9
Individual study under the direction of a member of the faculty leading to the preparation and oral defense of a thesis.
Prerequisites: NURSE 5550, NURSE 5555.

NURSE 5601 Clinical Institute I Credit: 1
1 credit hour (1 didactic) This course provides an introduction to the knowledge and skills essential to becoming a graduate student. Students utilize theory, evidence based practice/research, and clinical expertise to become expert practitioners in their population foci. Content includes relevant UMKC policies and procedures, technology utilization to conduct library literature searches, access to course content on electronic platforms, and planning for success in graduate school. The literature review search progresses to application of the content, through written and verbal communication. Techniques building on critical thinking skills to start clinical diagnostic reasoning skills are introduced along with graduate school expectations and outcomes.
Prerequisites: Admission to the MSN or DNP programs.

NURSE 5602 Healthcare Systems & Leadership Credits: 3
This course focuses on the DNP as leader within the complex health care industry. Utilizing information technology, an in-depth study of the socio-political, economic, cultural and historical background of the American health care system the system of health professions will form the foundation for exploration of leadership needs the DNP leadership role.
Prerequisites: Admission to the DNP program.

NURSE 5603 Research Institute I Credits: 2
This course will provide a hands-on introduction to the process of becoming a research scientist. Content will include the responsible conduct of research, its core element, the emerging guideline, relevant UMKC policies and procedures, and the impact to the Researcher in his/her day-to-day activities. This course also includes literature reviews, scholarly writing, technology in the Research process, developing a program of scholarship and effective time management.
Prerequisites: Admission to the PhD program at the School of Nursing and Health Studies.

NURSE 5604 Research Institute II Credits: 2
This course will provide interactive sessions to develop skills necessary for the synthesis of research findings, the identification of funding sources and the initiation of the grant writing process. Also included will be the opportunity to develop and present research findings in multiple venues.
Prerequisites: NURSE 5603, Completion of 6 credit hours of PhD coursework.

NURSE 5606 Healthcare Policy & Advocacy Credits: 3
This course is designed to focus on the integral relationship between health care policy and advocacy as a graduate prepared nurse. The student will employ best evidence, technology, political statistics, and engagement and leadership in public and organizational policy and advocacy processes to effect positive change in relation to particular and complex problems. Content will include principles and processes related to U.S. health policy and politics in relation to the overall system and issues of cost, quality and access; interrelationships between policy, political trends, and quality of care and access at the point of service; elimination of health care disparities, ethical and obligatory values related to the role of the graduate prepared nurse.
Prerequisites: Admission to Graduate Program.

NURSE 5607NA Health Care Policy and Leadership for the Nurse Anesthetist Credits: 2
This course provides an in-depth study of the health care policy process, emphasizing ways that Doctor of Nursing Practice (DNP) prepared Certified Registered Nurse Anesthetists (CRNAs) can incorporate health policy advocacy into their practice. The content prepares DNP CRNAs to be effective, innovative leaders in nurse anesthesia and health care. Students will participate in a leadership experience in one of four areas: education, research, administration, or politics.
Prerequisites: Active status in both UMKC SoNHS BSN-DNP NA program and the TMC School of Nurse Anesthesia.

NURSE 5608 Theory Development I Credits: 3
The philosophical underpinnings of nursing and the theoretical development of nursing science will be explored in this course. The discipline of nursing and the relationship between nursing theory, research, and practice will be discussed. Students will analyze nursing and non-nursing theories for research or clinical questions. Students will identify a theoretical framework to guide their research or evidence-based practice project.
Prerequisites: Twelve credit hours of graduate level course work, including NURSE 5550 and NURSE 5555, or their equivalents.
NURSE 5609 Clinical Institute II Credit: 1  
This course will provide interactive sessions to develop skills necessary to develop evidenced based practice projects. Literature search strategies, focused on the synthesis and integration of evidence (literature) that supports the problem, intervention, and outcome measurement will be presented. Institutional Review Board (IRB) and essential ethical components will be discussed. Opportunities for project dissemination including posters, presentations and manuscripts will be explored.  
Prerequisites: NURSE 5566 or NURSE 5619NAB.

NURSE 5610 Theory Development in Nursing II Credits: 3  
Nursing and non-nursing models, frameworks and theories will be analyzed and critically evaluated. Philosophical tenants will be debated. Students will identify the range of applicable theories for their area of research. Appropriate application of theories to independent and dependent variables, mediators and moderators, cofactors, correlates and outcomes will be explored. Students will develop concepts, hypotheses, and research goals that utilize an identified theory for nursing research.  
Prerequisites: NURSE 5608 or permission of instructor.

NURSE 5611 Healthcare Economics & Quality Credits: 3  
This course focuses on the principles of, and complex relationship between, cost and efficiency and effectiveness and health care quality outcomes. Economic perspectives and needs from industry, organizations, providers and consumers will all be examined. Throughout the course, issues regarding the inextricable link between cost and quality within the complex healthcare environment will be examined and addressed, with emphasis on DNP nurse intervention and leadership.  
Prerequisites: Admission to the DNP program.

NURSE 5612 Statistics I Credits: 3  
This graduate statistics online course is designed for students in the graduate programs. The course provides a comprehensive understanding of: describing data, logic of sampling, and test statistics; hypothesis testing, type 1 and type 2 errors; power; one-way ANOVA (analysis of variance); planned comparison, post-hoc tests and trend analysis; factorial ANOVA; repeated measures designs and mixed randomized repeated designs; simple and multiple regression; and ANCOVA (analysis of co-variance).  
Prerequisites: Upper division undergraduate statistics course.

NURSE 5613 Application of Evidence-based Practice I Credits: 3  
This course is designed to provide an analytic and systematic approach to evaluate evidence-based research and guidelines used in clinical practice. The course builds on methods of evidence-based practice (EBP), theoretical foundations, ethical principles, research design, and statistical analyses. The student will develop an evidence-based approach to address a clinical question and to construct an integrative literature review. In the course, an EPB project is designed to provide quality health care. The project plan incorporates the integrative literature review, scientific methods, outcome measurement, and data analysis.  
Prerequisites: NURSE 5555, NURSE 5608.

NURSE 5613A Application of Evidence-based Practice I Credits: 2  
This course is designed to provide an analytic and systematic approach to evaluate evidence-based research and guidelines used in clinical practice. The course builds on methods of evidence-based practice, theoretical foundations, ethical principles, research design, and statistical analyses. The student will develop an evidence-based approach to address a clinical question and to construct an integrative literature review.  
Prerequisites: NURSE 5555, NURSE 5608

NURSE 5613B Application of Evidence-based Practice I Credit: 1  
In the course, an evidence-based practice project is designed to provide quality health care. The project plan incorporates the integrative literature review, scientific methods, outcome measurement, and data analysis.  
Prerequisites: NURSE 5613A

NURSE 5614 Health Policy & Ethics Credits: 2  
This course examines health policy and ethics as they intersect with other public policies. Legal, financial, and ethical issues associated with policy development and evaluation are critically examined.  
Prerequisites: Admission into the Ph.D. in Nursing Program.

NURSE 5615NA Chemistry and Physics for the Nurse Anesthetist Credits: 3  
This course is designed to provide the nurse anesthesia student a foundational knowledge needed for the provision of anesthesia. This course will review elements of general, organic, and biochemistry pertinent to understanding structure, characteristics and basic mechanisms of metabolic pathways and pharmacology routinely administered during the anesthetic period. Pertinent laws and principles of physics will be presented. The student will be prepared to apply pertinent laws and principles of physics to the provision of anesthesia services.  
Prerequisites: Acceptance into School of Nurse Anesthesia Program.
NURSE 5616NA Anesthesia Crisis Resource Management Credit: 1
This course is designed for the graduate nurse anesthesia student to optimize their expert clinical judgement during low-frequency, high-acuity anesthesia crisis events. The history, importance, and theory of patient safety during dynamic anesthetic situations will be discussed, as well as specific skills and practices that improve performance. The goal of this course is for the student to develop knowledge and skills of Anesthesia Crisis Resource Management (ACRM) prior to graduation.

Prerequisites: Nurse 5619NA3.

NURSE 5617 Application of Evidence-based Practice II Credits: 3
This course is designed to provide an analytic and systematic approach to incorporation of evidence-based research into clinical practice. The course builds on the underpinnings of evidence-based practice (EBP) including theoretical foundations, ethical and cultural principles, quality, policy and economic considerations, design and methods, and statistical analysis of outcomes. In this course, the student will use the integrated literature review and principles of human subject protection to develop an evidence-based practice project proposal and submit the proposal for approval. Support for the EBP improvement plan includes technology and information systems.

Prerequisites: NURSE 5613 or NURSE 5613B

NURSE 5617A Application of Evidence-based Practice II Credit: 1
This course is designed to provide an analytic and systematic approach to incorporation of evidence-based research into clinical practice. The course builds on the underpinnings of evidence-based practice (EBP) including theoretical foundations, ethical and cultural principles, quality, policy and economic considerations, design and methods, and statistical analysis of outcomes. In this course, the student will use the integrated literature review and principles of human subject protection to develop an EBP project proposal. Prerequisites: NURSE 5613 or NURSE 5613B

NURSE 5617B Application of Evidence-based Practice II Credits: 2
In this course, the student will use the integrated literature review and principles of human subject protection to develop an evidence-based practice (EBP) project proposal and submit the proposal for approval. Support for the EBP improvement plan includes technology and information systems.

Prerequisites: NURSE 5617A

NURSE 5619NA1 Principles of Nurse Anesthesia Practice I Credits: 2
This course introduces the nurse anesthesia student to concepts necessary to plan and execute safe individualized anesthetics. Content includes assessment of co-morbid conditions and patient populations in anesthesia, appropriate plans of care, anesthetic techniques, prevention of complications, fluid management, monitoring and utilization of anesthesia equipment. Fundamental concepts and techniques essential to clinical anesthesia practice focus on theoretical, practical and professional considerations involved in the administration of general anesthesia, conscious sedation and regional anesthesia, inside and outside the operating room. Content includes evidence based student led conferences, anesthetic literature, morbidity and mortality, inter-disciplinary and intra-disciplinary conferences and use of informatics systems.

Prerequisites: NURSE 5619NAB.

NURSE 5619NA2 Principles of Nurse Anesthesia II Credits: 3
This course is designed to provide the nurse anesthesia student a broad knowledge base in multiple concepts, topics and techniques. This course builds on concepts learned in Principles I and delineates techniques of anesthesia management that are considered more situation specific with specialized diagnostic and anesthetic procedures. Primarily focused on patients and existing co-morbidities, the course intensively covers more advanced concepts and principles of anesthetic management including neurosurgical, thoracic, vascular and trauma procedures. Content includes evidence based student led morbidity and mortality conferences, inter-disciplinary and intra-disciplinary conferences, use of informatics systems and simulation based learning.

Prerequisites: NURSE 5619NA1.

NURSE 5619NA3 Principles of Nurse Anesthesia Practice III Credits: 3
The course covers advanced concepts and principles of anesthetic management with emphasis on cardio-thoracic anesthesia and anesthetic emergencies. The course builds on Principles I and II and focuses more on critical thinking, skill development, specific procedures utilized in anesthetic practice including advanced airway techniques and placement of invasive monitoring modalities as well as crisis management in anesthesia. Content includes evidence based student led conferences, utilization of anesthetic literature, morbidity and mortality, inter-disciplinary and intra-disciplinary conferences, use of medical informatics systems and simulation based learning.

Prerequisites: NURSE 5619NA2.

NURSE 5619NAB Basic Principles of Nurse Anesthesia Practice Credits: 2
This course is designed to build on topics introduced in orientation and provides the student with the knowledge needed to begin the delivery of anesthesia. This course encompasses a variety of topics including pharmacology and equipment utilized in the provision of anesthesia, airway anatomy and management, commonly administered fluid, colloids, non-colloids, and blood products and an overview of anesthesia and trauma. Lecture topics will be assimilated into high fidelity simulation scenarios to prepare the student for clinical residency courses.

Prerequisites: NURSE 5619NAO.
NURSE 5619NAO Orientation to Nurse Anesthesia Practice Credits: 2
This course is designed to give the first year nurse anesthesia student a broad field orientation to anesthesia topics. The course will provide a foundation of knowledge for the safe practice of anesthesia. This will be an initial introduction to the art and science of anesthesia. The course content will include: patient assessment of cardiac status for anesthesia, anesthetic equipment and workplace safety. The anesthesia machine is incorporated into the learning process to reinforce principles introduced in class. Institutional policies/procedures will be reviewed along with interprofessional communication skills. Education regarding personal wellness and substance abuse risks will be discussed.
**Prerequisites:** Admission into the DNP-NA program.

NURSE 5620 Advanced Practice V - DNP Clinical Credits: 5
This course is designed to increase the clinical expertise of the student by fostering the development of a specific area of focus. It allows the student to investigate specific procedures, skills or clinical knowledge that will be later utilized in the DNP practicum course. The course is designed to be self-directed allowing the student to focus on her/his own specific clinical interests and/or area of expertise. This five credit hour course consists of one credit hour of didactic and four credit hours of clinical (120 hours).
**Prerequisites:** All DNP coursework except NURSE 5624.

NURSE 5621A Clinical III Credits: 7
This course will provide students with the opportunity to apply knowledge from previous graduate courses to advanced primary care nursing of adults and geriatrics. The focus is to demonstrate refined advanced assessment, diagnosis, and treatment skills in clinical practice as appropriate in areas of specialization related to multiple disease processes associated in the care of adults and geriatrics. This practice will be based on the application of evidence in the biophysical, psychosocial, behavioral, sociopolitical, cultural, economic, interprofessional practice and nursing science arenas.
**Prerequisites:** Nurse 5566A.
**Co-requisites:** NURSE 5617B.

NURSE 5621C Clinical III Credits: 7
This course will provide students with the opportunity to apply knowledge from previous graduate courses to advanced primary care nursing of children. The focus is to demonstrate refined advanced assessment, diagnosis, and treatment skills in clinical practice as appropriate in areas of specialization related to multiple disease processes associated in the care of children. This practice will be based on the application of evidence in the biophysical, psychosocial, behavioral, sociopolitical, cultural, economic, interprofessional practice and nursing science arenas.
**Prerequisites:** NURSE 5566C.
**Co-requisites:** NURSE 5617B.

NURSE 5621F Clinical III Credits: 7
This course will provide students with the opportunity to apply knowledge from previous graduate courses to advanced primary care nursing of individuals and families. The focus is to demonstrate refined advanced assessment, diagnosis, and treatment skills in clinical practice as appropriate in areas of specialization related to multiple disease processes associated in the care of individuals and families. This practice will be based on the application of evidence in the biophysical, psychosocial, behavioral, sociopolitical, cultural, economic, interprofessional practice and nursing science arenas.
**Prerequisites:** NURSE 5566F.
**Co-requisites:** NURSE 5617B.

NURSE 5621W Clinical III Credits: 6
This course will provide students with the opportunity to apply knowledge from previous graduate courses to advanced primary care nursing of women. The focus is to demonstrate refined advanced assessment, diagnosis, and treatment skills in clinical practice as appropriate in areas of specialization related to multiple disease processes associated in the care of women. This practice will be based on the application of evidence in the biophysical, psychosocial, behavioral, sociopolitical, cultural, economic, interprofessional practice and nursing science arenas.
**Prerequisites:** NURSE 5566W.
**Co-requisites:** NURSE 5617.

NURSE 5622 Statistics II Credits: 3
This graduate statistics on-line course is designed to provide a conceptual understanding of the statistical procedures associated with: advanced multiple regression; moderators and mediators in multiple regression; path analysis; logistic regression; factor analysis; MANCOVA; MANOVA; cluster analysis; and canonical correlation.
**Prerequisites:** NURSE 5612.
NURSE 5623A Advanced Nursing Practice: Synthesis Practicum Credits: 5
This course is a concentrated, experiential, supervised clinical opportunity to function at the highest level of advanced nursing practice. The focus is on the synthesis and application of previous theory, primary care, and specialty clinical courses. Students will be expected to apply advanced clinical decision making skills and evidence based practice guidelines to the assessment, management, and evaluation of complex healthcare problems. Core concepts include integrated nursing science with knowledge of ethical, legal, and health policy issues.
Prerequisites: NURSE 5621A.
Co-requisites: NURSE 5629.

NURSE 5623C Advanced Nursing Practice: Synthesis Practicum Credits: 5
This course is a concentrated, experiential, supervised clinical opportunity to function at the highest level of advanced nursing practice. The focus is on the synthesis and application of previous theory, primary care, and specialty clinical courses. Students will be expected to apply advanced clinical decision making skills and evidence based practice guidelines to the assessment, management, and evaluation of complex healthcare problems. Core concepts include integrated nursing science with knowledge of ethical, legal, and health policy issues.
Prerequisites: NURSE 5621C.
Co-requisites: NURSE 5629.

NURSE 5623F Advanced Nursing Practice: Synthesis Practicum Credits: 5
This course is a concentrated, experiential, supervised clinical opportunity to function at the highest level of advanced nursing practice. The focus is on the synthesis and application of previous theory, primary care, and specialty clinical courses. Students will be expected to apply advanced clinical decision making skills and evidence based practice guidelines to the assessment, management, and evaluation of complex healthcare problems. Core concepts include integrated nursing science with knowledge of ethical, legal, and health policy issues.
Prerequisites: NURSE 5621F.
Co-requisites: NURSE 5629.

NURSE 5623W Advanced Nursing Practice: Synthesis Practicum Credits: 5
This course is a concentrated, experiential, supervised clinical opportunity to function at the highest level of advanced nursing practice. The focus is on the synthesis and application of previous theory, primary care, and specialty clinical courses. Students will be expected to apply advanced clinical decision making skills and evidence based practice guidelines to the assessment, management, and evaluation of complex healthcare problems. Core concepts include integrated nursing science with knowledge of ethical, legal, and health policy issues.
Prerequisites: NURSE 5621W.
Co-requisites: NURSE 5629.

NURSE 5624 Advanced Practice VI-DNP Practicum Credits: 5
This course is designed to synthesize all previous coursework through the implementation and evaluation of a "tangible and deliverable academic product that is derived from the practice immersion experience" (DNP essentials, p.20). Individual student work may take a variety of forms, but will include the elements of evidence evaluation and utilization, systems analysis, and dissemination of best practice information.
Prerequisites: NURSE 5620.

NURSE 5627NA Regional Anesthesia Credit: 1
This course is designed for graduate nurse anesthesia students to review anatomy, pharmacodynamics, pharmacokinetics and physiological effects of local anesthetics and to learn techniques to administer various types of regional anesthesia.
Prerequisites: NURSE 5619NAB.

NURSE 5628NA1 Advanced Physical Health Assessment for the Nurse Anesthetist I Credits: 2
This is the first of a two course series that will present the various elements required to perform a systematic assessment with an emphasis on the patient preparing to undergo anesthesia throughout the lifespan. Integration of in-depth health history, physical and psychological signs and symptoms, diagnostic testing, pathophysiologic changes, psychosocial, and cultural characteristics of the individual are emphasized. Professional documentation and communication of findings will be practiced. The student will integrate knowledge and advanced assessment skills to perform a comprehensive pre-anesthesia assessment. Co-requisites: NURSE 5619NAB.
Prerequisites: NURSE 5619NA0.

NURSE 5628NA2 Advanced Physical Health Assessment for the Nurse Anesthetist II Credit: 1
This is the second of a two course series. This course will integrate the student’s knowledge and skills to work effectively and efficiently within the healthcare team to formulate an anesthesia plan of care which takes into consideration assessment findings related to underlying pathology, life circumstance, culture, and ethnicity. Content will include advanced diagnostic testing pertinent to the patient preparing for anesthesia. Assessment skills and critical thinking will be refined through clinical experiences. This course consists of 0.5 credit hours of didactic and 0.5 credit hours of clinical (45 hours).
Prerequisites: NURSE 5628NA1.
NURSE 5629 Clinical Institute III Credits: 2
This course is designed to synthesize all previous course work. The students will utilize education, knowledge and experiences to complete their final DNP project data collection and evaluation of a “tangible and deliverable academic product that is derived from the practice immersion experience” (AACN Essentials 2006, p. 20). Individual student work may take a variety of forms, but will include the multi-faceted elements required of evidence evaluation and utilization, systematic analysis, and dissemination of project data to support best practice.
Prerequisites: Nurse 5617B, Nurse 5621.

Co-requisites: Nurse 5623.

NURSE 5630 Health Care Systems Credits: 3
This course is a guided, in-depth exploration, analysis and evaluation of selected health care systems literature. Other nursing literature will be reviewed as appropriate.
Prerequisites: Admission into Ph.D. in Nursing program.

NURSE 5631 State of the Science Credits: 3
This course is a guided in-depth exploration of literature on a selected focus area. Appropriate contextual system literature will be reviewed as appropriate. Scholarly writing for a variety of contexts will be presented.
Prerequisites: Admission into a doctoral program and completion of a doctoral level theory course or permission of instructor

NURSE 5632 Health Restoration & Support Credits: 3
This course is a guided, in-depth exploration, analysis and evaluation of selected health restoration support literature. Other nursing literature will be reviewed as appropriate.
Prerequisites: Admission into Ph.D. in Nursing program.

NURSE 5636NA Obstetrical Anesthesia Credit: 1
This course is designed to provide the graduate nurse anesthesia student with a broad knowledge base in the field of obstetrical anesthesia. Anatomy and physiology of pregnancy, co-morbidities in the pregnant patient and anesthesia procedures for the pregnant patient will be presented. Lecture topics will be assimilated into high fidelity simulation scenarios to prepare the student for clinical residency courses.
Prerequisites: NURSE 5619NA1.

Co-requisites: NURSE 5619NA2.

NURSE 5637 Healthcare Outcomes and Epidemiology Credits: 2-3
This course is an application of basic epidemiologic principles. This course provides the foundation for assessment and evaluation of health outcomes in a variety of populations, clinical settings, and systems. Concepts introduced include fundamentals of epidemiology, determinants of health, screening, outbreak investigation, and disease surveillance. The course includes content on descriptive and analytic epidemiology.
Prerequisites: NURSE 5612 or equivalent.

NURSE 5638NA1 Pharmacology of Anesthesia I Credit: 1
The course is the first in a two semester sequence designed to provide the graduate nurse anesthesia student with the knowledge of pharmacology and the human physiologic responses to pharmacologic agents when administered to the patient perioperatively.
Prerequisites: NURSE 5619NA3.

NURSE 5638NA2 Pharmacology of Anesthesia II Credits: 2
This course is the second in a two semester sequence designed to provide the graduate nurse anesthesia student with the knowledge of pharmacology and the human physiologic responses to pharmacologic agents when administered to the patient perioperatively.
Prerequisites: NURSE 5638NA1.

NURSE 5640NA Pediatric Anesthesia Credit: 1
This course is designed for the graduate nurse anesthesia student to learn anatomy and physiology specific to the pediatric patient. The most common pathophysiologic states found in the pediatric surgical patient will be discussed as well as fluid management and pharmacology as it relates to the pediatric patient. The goal of this pediatric course is to give the student the basic knowledge of pediatric anesthesia as a foundation, prior to their pediatric clinical rotation.
Prerequisites: NURSE 5619NA2.

Co-requisites: NURSE 5619NA3.

NURSE 5641NA Acute and Chronic Pain Management Credit: 1
The student will develop a basic understanding of pain management as it relates to the field of anesthesia. Advantages and disadvantages of various pain management approaches, as well as general physiologic and anatomic concepts as they relate to pain will be covered. Through the course, various pain management approaches will be implemented and evaluated. Students will be required to demonstrate proficiency in managing acute pain in patients of all ages and varying stages of wellness.
Prerequisites: NURSE 5619NA2.
NURSE 5642NA Comprehensive Review Credit: 1
This is a comprehensive review course that covers all areas of anesthesia, as well as all anesthesia techniques. This course will discuss normal physiology and pathophysiology of all organ systems and how various anesthesia techniques and pharmacology affect these systems. The student will be equipped with the knowledge of how to choose appropriate anesthetic techniques for various disease states and surgical procedures. **Prerequisites:** NURSE 5619NA2.

Co-requisites: NURSE 5619NA3.

NURSE 5643NA Professional Practice for the Nurse Anesthetist Credits: 2
This course is designed to explore a range of non-clinical issues in nurse anesthesia practice. Students will gain an appreciation of the professional ideals of the Doctor of Nursing Practice (DNP) prepared Certified Registered Nurse Anesthetist (CRNA) through both online and on-site group discussion. In addition, students will attend professional meetings including: Student Registered Nurse Anesthetist (SRNA) Leadership Luncheon, Missouri Association of Nurse Anesthetists (MoANA) Lobby Day; Wellness in the Workplace, an event highlighting the risks of chemical dependency in nurse anesthesia practice; and one additional state or national professional meeting. **Prerequisites:** Active status in both the UMKC SONHS DNP-NA Track and TMC School of Nurse Anesthesia.

NURSE 5650NA1 Clinical Anesthesia I Credits: 0
The first of three clinical anesthesia practicums designed to provide the nurse anesthesia student simulated learning and complete hands on, supervised clinical practice on adult patients. The foci are skill development and safe anesthetic practice throughout the perioperative period. Students are assigned day experiences and call shifts at Truman Medical Center. Experiences progress in acuity and include, but are not limited to, general, gynecological, orthopedic, oral maxillary facial, urologic, dental, ophthalmic and endoscopic procedures. Core content includes formulation and management of perianesthesia plan of care, utilization of technology, application of EBP, technical skill development and advanced practice role competencies. **Prerequisites:** NURSE 5650NAO, NURSE 5619NAB.

NURSE 5650NA2 Clinical Anesthesia II Credits: 0
The second of three clinical anesthesia practicums designed to provide the nurse anesthesia student simulated learning and complete hands on, supervised clinical practice on adult patients. The foci are skill development and safe anesthetic practice throughout the perioperative period. Students are assigned day experiences and call shifts at Truman Medical Center. Experiences progress in acuity and include, but are not limited to, general, gynecological, orthopedic, oral maxillary facial, urologic, dental, ophthalmic and endoscopic procedures. Core content includes formulation and management of perianesthesia plan of care, utilization of technology, application of EBP, technical skill development and advanced practice role competencies. **Prerequisites:** NURSE 5650NA1.

NURSE 5650NA3 Clinical Anesthesia III Credits: 0
The third of three clinical anesthesia practicums designed to provide the nurse anesthesia student simulated learning and complete hands on, supervised clinical practice on adult patients. The foci are skill development and safe anesthetic practice throughout the perioperative period. Students are assigned day experiences and call shifts at Truman Medical Center. Experiences progress in acuity and include, but are not limited to, general, gynecological, orthopedic, oral maxillary facial, urologic, dental, ophthalmic and endoscopic procedures. Core content includes formulation and management of perianesthesia plan of care, utilization of technology, application of EBP, technical skill development and advanced practice role competencies. **Prerequisites:** NURSE 5650NA2.

NURSE 5650NA4 Clinical Anesthesia IV Credits: 0
This course is the first of a three semester nurse anesthesia residency/practicum designed to provide concentrated, experiential, supervised, high acuity, perioperative experiences. The focus is on the synthesis and application of all previous courses. Students will be expected to apply advance clinical decision-making skills and evidence-based practice guidelines to the assessment, management and evaluation of complex procedures and patients across the lifespan. Students attend specialty rotations at up to 9 different sites. Core concepts include nurse anesthesia practice, technical skill development, integration of technology and evidence based practice to the patient and/or healthcare system, and ethical, legal and professional issues. **Prerequisites:** NURSE 5619NA3 and NURSE 5650NA3.

NURSE 5650NA5 Clinical Anesthesia V Credits: 0
This course is the second of a three semester nurse anesthesia residency/practicum designed to provide concentrated, experiential, supervised, high acuity, perioperative experiences. The focus is on the synthesis and application of all previous courses. Students will be expected to apply advance clinical decision-making skills and evidence-based practice guidelines to the assessment, management and evaluation of complex procedures and patients across the lifespan. Students attend specialty rotations at up to 9 different sites. Core concepts include nurse anesthesia practice, technical skill development, integration of technology and evidence based practice to the patient and/or healthcare system, and ethical, legal and professional issues. **Prerequisites:** NURSE 5650NA4.
NURSE 5650NA6 Clinical Anesthesia VI Credits: 0
This course is the third of a three semester nurse anesthesia residency/practicum designed to provide concentrated, experiential, supervised, high acuity, perioperative experiences. The focus is on the synthesis and application of all previous courses. Students will be expected to apply advanced clinical decision-making skills and evidence-based practice guidelines to the assessment, management and evaluation of complex procedures and patients across the lifespan. Students attend specialty rotations at up to 9 different sites. Core concepts include nurse anesthesia practice, technical skill development, integration of technology and evidence based practice to the patient and/or healthcare system, and ethical, legal and professional issues.
Prerequisites: NURSE 5650NA5.

NURSE 5650NAO Clinical Anesthesia Orientation Credits: 0
Orientation to clinical practice during which students participate in hands on, supervised clinical practices and simulated clinical learning experiences. Students orient to the Hospital, OR, and Anesthesia department. Clinical education focus is on safe anesthetic practice and skill development throughout the entire perioperative period. Experiences include basic airway management, equipment procurement, anesthesia assessment process, induction and emergence from anesthesia. Clinical orientation experiences include multiple patient populations, ages and sub specialties within anesthesia practice.
Prerequisites: NURSE 5619NAO.
Co-requisites: NURSE 5619NAB.

NURSE 5659NA Health Systems, Economics and Quality in Nurse Anesthesia Practice Credits: 2
This course is designed to introduce the nurse anesthesia student to the fundamental principles of healthcare economics and healthcare systems. The effects of economics will be discussed from a broad viewpoint and from the various perspectives of anesthesia care delivery models. This course will also discuss the impact of quality indicators on anesthesia practice. The course will begin with a leadership summit and continue with online content and discussion forums.
Prerequisites: NURSE 5674NA1.

NURSE 5661NA1 Anesthesia & Co-Existing Diseases I Credits: 2
This course is the first in a two semester series designed to provide senior nurse anesthesia students with the knowledge of pathophysiology of various disease states and their anesthesia implications.
Prerequisites: NURSE 5619NA3.

NURSE 5661NA2 Anesthesia & Co-Existing Diseases II Credit: 1
This course is the second in a two semester series designed to provide senior nurse anesthesia students with the knowledge of pathophysiology of various disease states and their anesthesia implications.
Prerequisites: NURSE 5661NA1.

NURSE 5662 Psychometrics Credits: 3
This course focuses on application of psychometric theories and practices related to instrumentation in nursing research. The basic methodologies and techniques for constructing, testing, and evaluating instruments will be discussed and applied by students. Content will focus on theoretical foundations of measurement, item construction, instrument design, item analysis, validity and reliability assessment. Criteria for evaluating existing instruments will also be discussed. Prerequisites: NURSE 5612 or equivalent; NURSE 5622 or equivalent; NURSE 5668 or equivalent.

NURSE 5666 Designing Nursing Research Credits: 3
This doctoral level course directs the student to develop research writing skills necessary for developing their dissertation and future program of research. Critical analyses of methodologies and design are accomplished. The strengths and weakness of various research designs (non-experimental, quasi-experimental, experimental and randomized clinical trial) are evaluated via in-depth discussions.
Prerequisites: NURSE 5610, NURSE 5612, NURSE 5622, NURSE 5662, NURSE 5668, NURSE 5670.

NURSE 5668 Quantitative Research Credits: 3
Quantitative research methods used to build nursing’s body of knowledge are explored. Experimental, quasi-experimental, and correlational designs and clinical trials are analyzed. Emphasis is placed on design, data generation, analysis, and dissemination of findings. Issues pertaining to the use of quantitative methods will also be explored.
Prerequisites: NURSE 5610, PSYCH 5516.

NURSE 5670 Qualitative Research Methods Credits: 3
Qualitative research methods used to build nursing’s body of knowledge are explored in this seminar course. Emphasis is placed on design, data generation and analysis, and dissemination of findings. Issues regarding qualitative research are identified and analyzed.
Prerequisites: Admission to the Nursing Ph.D. program.
NURSE 5671 Advanced Qualitative Research and Mixed Methods Credits: 3
This graduate level course is designed for students who have had an introduction to qualitative research methods and want to pursue more in-depth study of these methodologies, with emphasis on a chosen methodology that they hope to use in their own research. Appropriateness of methodological choice in relation to research question, application of theory, rhetorical style and author presence, and criteria for judging quality will be among the topics explored for various methodologies and data generation (collection) and data analysis skills will be practiced. The course will also acquaint students with the growing literature on mixed methods research.
Prerequisites: Admission to the Nursing Ph.D. program, an introductory qualitative research course.

NURSE 5674NA1 Scholarly Project in Nurse Anesthesia I Credits: 2
This is the first in a series of four courses that culminate in a scholarly project in nurse anesthesia that demonstrates the scholarship of integration and application. This is a distance education course. The student will identify a complex problem in their area of interest and expertise, design, implement, and evaluate an innovative solution to this problem. The student will use the breadth of knowledge and scholarship skills gained through their program of study to improve practice and/or patient outcomes. It validates the student’s ability to translate research evidence into practice. This project lays the foundation for future scholarship.
Prerequisites: NURSE 5637.

NURSE 5674NA2 Scholarly Project in Nurse Anesthesia II Credits: 2
This is the second in a series of four courses that culminate in a scholarly project in nurse anesthesia that demonstrates the scholarship of integration and application. This is a distance education course. The student will identify a complex problem in their area of interest and expertise, design, implement, and evaluate an innovative solution to this problem. The student will use the breadth of knowledge and scholarship skills gained through their program of study to improve practice and/or patient outcomes. It validates the student’s ability to translate research evidence into practice. This project lays the foundation for future scholarship.
Prerequisites: NURSE 5674NA1.
Co-requisites: NURSE 5643NA.

NURSE 5674NA3 Scholarly Project in Nurse Anesthesia III Credits: 2
This is the third in a series of four courses that culminate in a scholarly project in nurse anesthesia that demonstrates the scholarship of integration and application. This course is a face-to-face course. The student will identify a complex problem in their area of interest and expertise, design, implement, and evaluate an innovative solution to this problem. The student will use the breadth of knowledge and scholarship skills gained through their program of study to improve practice and/or patient outcomes. It validates the student’s ability to translate research evidence into practice. This project lays the foundation for future scholarship.
Prerequisites: NURSE 5674NA2.
Co-requisites: NURSE 5643NA.

NURSE 5674NA4 Scholarly Project in Nurse Anesthetist IV Credits: 2
This is the fourth in a series of four courses that culminate in a scholarly project in nurse anesthesia that demonstrates the scholarship of integration and application. This course is a face-to-face course. The student will identify a complex problem in their area of interest and expertise, design, implement, and evaluate an innovative solution to this problem. The student will use the breadth of knowledge and scholarship skills gained through their program of study to improve practice and/or patient outcomes. It validates the student’s ability to translate research evidence into practice. This project lays the foundation for future scholarship.
Prerequisites: NURSE 5674NA3.

NURSE 5696 Pre-Dissertation Credits: 1-2
This course is individually directed research leading to the preparation of a doctoral dissertation.
Prerequisites: Permission of the instructor.
Co-requisites: Completion of the comprehensive examination.

NURSE 5697A Special Topics Nursing Elective Credits: 1-6
This course consists of the guided study of special topics in areas of nursing theory and/or research.
Prerequisite: Admission into PhD in Nursing Program

NURSE 5697APP Special Topics Nursing Credits: 1-6
NURSE 5697AR Special Topics Nursing Credits: 1-6
NURSE 5697B Special Topics Nursing-Equivalent Credits: 1-6
This course will cover guided study of course equivalent topics in areas of nursing theory and/or research.
Prerequisites: Admission into Ph.D. in Nursing program.
NURSE 5697CI Special Topics Nursing Credits: 1-6
NURSE 5697CP Special Topics Nursing Credits: 1-6
NURSE 5697CR Special Topics Credits: 1-6
This course will cover guided study of course equivalent topics in areas of nursing theory and/or research.

Prerequisites: Admission into Ph.D. in Nursing program.

NURSE 5697DP Special Topics Nursing Credits: 1-6
NURSE 5697HER Special Topics in Nursing Credits: 1-6
NURSE 5697RD Special Topics Nursing Credits: 1-6
NURSE 5697SHA Special Topics-Nursing Credits: 1-6
Special Topics-Nursing
NURSE 5697SHB Special Topics Nursing Credits: 1-6
Special Topics Nursing
NURSE 5697SHC Special Topics Nursing Credits: 1-6
Special Topics Nursing
NURSE 5697WLA Special Topics in Nursing Credits: 1-6
Special Topics in Nursing
NURSE 5697WLB Special Topics in Nursing Credits: 1-6
Special Topics in Nursing
NURSE 5697WLC Special Topics in Nursing Credits: 1-6
Special Topics in Nursing
NURSE 5699 Dissertation Research Credits: 1-12
Individual directed research leading to preparation and completion of doctoral dissertation.

NURSE 5899 Required Graduate Enrollment Credit: 1
Academic Regulations in the School of Nursing & Health Studies

Students in UMKC’s School of Nursing and Health Studies (SoNHS) are expected to be familiar with the contents of the UMKC General Catalog and UMKC School of Nursing and Health Studies Policies & Procedures Manual and comply with the provisions pertaining to their level of study. The UMKC General Catalog outlines the minimum academic regulations and degree requirements. The UMKC School of Nursing and Health Studies may adopt additional and/or more stringent requirements for admission, retention and degrees that take priority over the Catalog’s minimum regulations to provide students with the best possible preparation for successful completion of licensure examinations. All policies are reviewed annually. Policy changes become effective the fall following the approved change. Students will be notified via UMKC e-mail if there are exceptions to the effective date. These policies and procedures can be found in the School of Nursing and Health Studies Policies and Procedures Manual located at http://sonhs.umkc.edu/wp-content/uploads/2014/10/policy-procedure.pdf.

Students must also be familiar with the Nursing Honor Code found at http://sonhs.umkc.edu/wp-content/uploads/2014/10/honor-code.pdf.

Performance standards may be influenced annually by various regulatory agency requirements and subject to change. Students will be notified in writing within 24 hours of mandated changes. Students admitted the BSN program prior to any mandated change will not be held to the new requirements.

Academic and Professional Behavior

Students in the School of Nursing and Health Studies abide by the University of Missouri Student Conduct Code (http://www.umsystem.edu/ums/rules/collected_rules/programs/ch200/200.010_standard_of_conduct) (listed in the appendices of this catalog) and by the School of Nursing and Health Studies Honor Code (http://sonhs.umkc.edu/wp-content/uploads/2014/10/honor-code.pdf). The Standards of Professional and Ethical Behavior detailed in the honor code have been developed to guide students who are enrolled at all levels with the UMKC SoNHS, including undergraduate and graduate students, and are designed to assure accountability for the professional and ethical standards of the nursing profession.

STUDENT CONCERNS – ALL PROGRAMS

During the semester, if a student has concerns about their course, the student should follow the steps listed below:

1. Contact the instructor directly to set up a meeting. This meeting should be in person or by telephone.
2. If the issues are not resolved satisfactorily for the student, the student should then consult with the course coordinator if the course is a team-taught course.
3. If the issues are not resolved satisfactorily for the student, then the student should first make an appointment with the program director.
4. If issues are not resolved, the student may meet with the Associate Dean for Students.
5. If the issue remains unresolved they may meet with the Dean for the School of Nursing and Health Studies. The Dean's decision is considered final.
6. If the student's concerns are related to perceived discrimination, the student should refer to UMKC's Student Grievance Process. This process may be found on the UMKC website at: https://catalog.umkc.edu/special-notices/equal-opportunity-guidelines/discrimination-grievance-procedure-for-students/ and process flowchart can be found at: http://info.umkc.edu/saem/wp-content/uploads/2015/10/Grievance_Flow_ChartRevised.pdf. If the student's concerns are related to grades and those are not resolved upon completion of the course, the student may pursue a Grade Appeal. See the School of Nursing Policy and Procedures for Grade Appeal located on the School of Nursing webpages at http://sonhs.umkc.edu/wp-content/uploads/2014/10/policy-procedure.pdf.
7. No other sequences, procedures or avenues of discourse are acceptable for consideration or issues arising in individual courses.

TIME LIMIT ON SCIENCE COURSES – UNDERGRADUATE PROGRAMS

BSN Pre-Licensure (PL) & Accelerated Track (AT): Students applying to the BSN pre-licensure and accelerated track must have science course requirements completed within the past five academic years prior to beginning courses within the nursing major. For example, if students begin Nursing course work Fall Semester 2010, then science courses completed Fall Semester 2005 or later will be accepted. Pre-requisite science courses include Chemistry or Bio-Chemistry; Anatomy & Physiology; and Microbiology with a grade of B- or better.

RN-BSN: Students applying to the RN-BSN program and working as RN's do not have a time limit on their science courses.

Bachelor Health Studies: At the time of graduation, Anatomy & Physiology and Nutrition must be no more than 10 years old.

CRIMINAL BACKGROUND CHECK AND DRUG SCREENING – ALL CLINICAL PROGRAMS

• An offer for admission to a School of Nursing and Health Studies clinical program is contingent on findings from the criminal background screen and drug test. All screens and tests must be free of discrepancies. If results indicate discrepancies, an offer for admission will be immediately rescinded.

• Once students are admitted into a clinical program, they are required to provide information and make payment to a SoNHS selected company, for a Criminal Background Check. If the results of this check show that the student has a pending or recent (within the last three years) criminal conviction for an offense involving narcotics, alcohol, crimes against persons or abuse/neglect, the student will be dismissed from the program.
CLINICAL DRESS & PROFESSIONAL APPEARANCE – ALL PROGRAMS

School of Nursing and Health Studies has a clinical dress and professional appearance that is located in the SoNHS policy and Procedure. Standards for dress and appearance are more conservative so that it is acceptable in all clinical, community, and professional settings. Dress code standards apply to all clinical, laboratory, simulation, and UMKC sponsored events where the uniform is worn.

Undergraduate and graduate programs have specific and different requirements. Please refer to the School of Nursing and Health Studies Policy and Procedure Manual.
Accreditation

The Baccalaureate, Master’s, and DNP programs at the UMKC School of Nursing and Health Studies are accredited by the Commission on Collegiate Nursing Education, One Dupont Circle, NW, Suite 530, Washington, DC 20036, (202) 887-6791.

Academic Programs Offered

Please visit the School of Nursing and Health Studies' website at http://sonhs.umkc.edu for more specific program information and plans of study for the following nursing programs.

Bachelor of Science in Nursing (BSN)

- Accelerated Track (for students with a previous bachelor's degree) (69 credit hours)
- Pre-licensure Track (128 credit hours)
- RN-BSN Track/RN-BSN Completion (120 credit hours)

Master of Science in Nursing (MSN)

- Nurse Educator (41 credit hours)

Master of Science in Nursing - Nursing Practice (MSN NP)

- Acute Care Pediatric Nurse Practitioner (52 credit hours)
- Adult Gerontology Nurse Practitioner (46 credit hours)
- Family Nurse Practitioner (46 credit hours)
- Neonatal Nurse Practitioner (45 credit hours)
- Pediatric Nurse Practitioner (46 credit hours)
- Psychiatric Mental Health Nurse Practitioner (46 credit hours)
- Women’s Health Nurse Practitioner (46 credit hours)

Bachelor of Science in Nursing to Doctor of Nursing Practice (BSN-DNP)

- Adult Gerontology Nurse Practitioner (74 credit hours)
- Certified Registered Nurse Anesthetist (73 credit hours)
- Family Nurse Practitioner (74 credit hours)
- Pediatric Nurse Practitioner (74 credit hours)
- Women’s Health Nurse Practitioner (74 credit hours)

Post-MSN Certificate Options

- Acute Care Pediatric Nurse Practitioner (16 credit hours)
- Adult Gerontology Nurse Practitioner (18 credit hours)
- Family Nurse Practitioner (18 credit hours)
- Neonatal Nurse Practitioner (24 credit hours)
- Nurse Educator Post Master’s Certificate Program (12 credit hours)
- Pediatric Nurse Practitioner (18 credit hours)
- Psychiatric Mental Health Nurse Practitioner (16 credit hours)
- Women’s Health Nurse Practitioner (18 credit hours)

Post Master’s APRN to Doctor of Nursing Practice (MSN-DNP) (31 credit hours)

MSN-DNP NP New Emphasis (or Foci) (62 credit hours)

- Adult Gerontology Nurse Practitioner
- Family Nurse Practitioner
- Neonatal Nurse Practitioner
- Pediatric Nurse Practitioner (Acute or Primary Care track)
- Psychiatric Mental Health Nurse Practitioner
- Women’s Health Nurse Practitioner

APRN MSN-DNP 2nd NP Emphasis (or Foci) (43-45 credit hours)
Accreditation

- Adult Gerontology Nurse Practitioner
- Family Nurse Practitioner
- Neonatal Nurse Practitioner
- Pediatric Nurse Practitioner (Acute or Primary Care track)
- Psychiatric Mental Health Nurse Practitioner
- Women’s Health Nurse Practitioner

BSN-PhD in Nursing (73 credit hours)

MSN-PhD in Nursing (61 credit hours)
Admissions

UMKC’s Office of Admissions is located in room 120, Administrative Center, 5115 Oak St. All applicants should complete the UMKC application for admission. Applications and transcripts should be mailed to the UMKC Office of Admissions, 120 Administrative Center, 5100 Rockhill Road, Kansas City, MO 64110-2499. Go to http://www.umkc.edu/admissions/

All nursing programs offered by the UMKC School of Nursing and Health Studies (SoNHS) require supplemental application materials. It is recommended that applicants review the requirements for undergraduate and graduate degree programs on the UMKC School of Nursing and Health Studies website to access supplemental application materials and review application deadline dates. All application materials must be received by the stated deadline for the specific program. Applications received after these dates may or may not be reviewed depending on available space. The UMKC SoNHS website can be found at: http://sonhs.umkc.edu/.

Once admitted, all official University communication is conducted via UMKC e-mail.
Bachelor of Health Sciences

University Requirements

General Education
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students graduating from this program will:

• Apply knowledge from physical, biological, behavioral, business, and social aspects of health into inter-professional practice.

• Create (plan, implement, and evaluate) evidence-based health programs relevant to targeted populations and desired health outcomes.

• Demonstrate professional conduct, and strong interpersonal skills in their chosen career path.

• Identify the specific challenges, and opportunities of improving health outcomes and reducing health disparities in diverse and urban environments.

Bachelor of Health Sciences (BHS) Mission
Supporting the SoNHS' mission to prepare the health professional workforce in improving health outcomes, the purpose of the Bachelor of Health Sciences program is to prepare graduates for a wide variety of careers in health or to pursue post-graduate education. Through an innovative combination of coursework, service learning, volunteerism, and a senior year internship, students will apply theoretical concepts in evidence-based health programming and health policy development into diverse community settings.

What is a Bachelor of Health Sciences?
With a comprehensive science-based curriculum, the Bachelor of Health Sciences degree combines urban-focused coursework in health policy, health program development, health and wellness, and population health outcomes. With a combination of coursework, service learning, volunteerism, and a senior year internship, students will apply theoretical concepts in evidence-based health programming and policy development in community settings. The UMKC BHS Degree Program offers a comprehensive curriculum designed to prepare students for a wide variety of careers in health or to pursue post-graduate education. The program is offered through the UMKC School of Nursing & Health Studies and includes coursework in the physical, biological, behavioral, business and social aspects of health.

Minor Options
The BHS requires completion of 120 credits of coursework, which includes elective coursework. Students are urged to align those elective classes within a targeted area of specialization. These minor options may enhance your marketability in the workplace.

MINORS
MINOR IN PUBLIC HEALTH
MINOR IN EXERCISE SCIENCE

What can I do with a Bachelor of Health Sciences?
The UMKC BHS Degree Program is the perfect choice for students who are interested in a career in health focusing on health prevention, health promotion, population health, and health behavior change. UMKC is offering the BHS Degree in response to the growing workforce demand for health
professionals in a variety of areas including, personal health and wellness, social determinants of health, occupational health and safety, community health, and environmental health. Graduates may find career options in government settings, non-profit organizations, community health centers, workplace health and wellness companies, and health promotion organizations.

**Student Organization**

BHS Society is a student organization centered around the health sciences field of study. The goals of this organization are to promote philanthropy within the community, advocate health education, and cultivate leadership among members.

**Progression Policy**

Students in the BHS program must earn a minimum grade of "C-" in all Health Sciences and CHEM 206 (or equivalent). They must earn a minimum grade of "D-" in non-Health Sciences courses. For a full list of courses and the required grade, refer to the Major Map.

This means that a grade below a "C-" in a Health Sciences/CHEM 206, or below a "D-" in a non-Health Sciences course will need to be repeated to earn a passing grade.

If a student’s cumulative GPA falls below 2.0, the student will be placed on Academic Probation. To be removed from Academic Probation, students must achieve a cumulative GPA of 2.0 within the next two successive semesters (if enrolling in summer classes, summer is included).

Students must be removed from Academic Probation within the next two successive semesters or they will be Academically Dismissed.

**Students whose semester cumulative GPA falls below 2.0 must enroll in HLSC 100 Student Success Strategies. Students must successfully complete this one-hour course in addition to earning a cumulative GPA of 2.0 before being returned to good academic standing. This one-hour course is offered each fall and spring.**

**Program Requirements**

**Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied by the Constitution course requirement below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus Elective (Satisfied in program requirements below)</td>
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</tbody>
</table>

‘Total credits’ in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

Total Credits 21

1 See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

**Constitution Course Requirement**

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) 1</td>
<td></td>
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</tbody>
</table>
### Bachelor of Health Sciences

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) ¹</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.</td>
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</tr>
</tbody>
</table>

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

### Other Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 206</td>
<td>Human Nutrition (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HLSC 120</td>
<td>Anatomy &amp; Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>HLSC 160</td>
<td>Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or MATH 116: Mathematics for Liberal Arts or higher (Focus B) )</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 210</td>
<td>General Psychology (Focus C)</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits: 20

### Major Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLSC 101</td>
<td>Introduction to Health Sciences</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 110</td>
<td>Personal Wellness</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 125</td>
<td>Medical Terminology</td>
<td>1</td>
</tr>
<tr>
<td>HLSC 200</td>
<td>First Aid / CPR</td>
<td>1</td>
</tr>
<tr>
<td>HLSC 230</td>
<td>Health Issues in Aging</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 252</td>
<td>Human Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 300</td>
<td>Diversity in Health</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 310</td>
<td>Healthcare Systems</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 325</td>
<td>Human Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 345</td>
<td>Quantitative Analysis in the Health Sciences</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 410</td>
<td>Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 430</td>
<td>Health Program Management</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 440</td>
<td>Policy and Ethics in Health</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 450</td>
<td>Urban Health</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 460</td>
<td>Global Health</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 470</td>
<td>Technology, Marketing and Media in Health</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 476 or STAT 235</td>
<td>Scientific Inquiry or Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 480</td>
<td>Leadership and Management in Health Professions</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 492</td>
<td>Health Sciences Specialty Course</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 494</td>
<td>Health Science Internship</td>
<td>6</td>
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Total Credits: 59

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Electives</td>
<td>17</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.0

Total Credit Hours: 120
Tools for Planning and Fulfilling Academic Requirements

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/planmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
Bachelor of Science in Nursing

Baccalaureate Nursing Education (BSN)

Undergraduate baccalaureate nursing education is designed to prepare a nurse generalist who demonstrates responsibility, accountability and critical thinking. The nurse generalist uses a comprehensive approach to health care and can meet diversified health concerns of individuals, families and communities at all stages of development. The UMKC School of Nursing and Health Studies offers an innovative program in the management of health.

There are three options available to complete a Bachelor of Science in Nursing (BSN) degree:

- Pre-Licensure (4-5 Year traditional program in nursing for students who want to obtain a BSN and do not possess a previous bachelor’s degree or RN license)
- Accelerated (2nd degree option for students who possess a bachelor’s degree in another discipline, do not possess an RN license and want to obtain a BSN)
- RN-BSN (BSN Completion Program for students who are currently licensed registered nurses (RNs), possess an associate’s degree or diploma in nursing and want to obtain a BSN). Enrollment may be full or part-time.

University Requirements

General Education

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

Constitution Course

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

RooWriter Assessment

Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations

Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

BSN Pre-licensure (4-5 Year Traditional Program in Nursing)

Student Learning Outcomes

Students graduating from this program will:

- incorporate knowledge from arts, humanities and sciences in the planning and provision of professional nursing care;
- demonstrate Personal Effectiveness as evidenced by progressing from awareness to knowledge to proficiency in the following competencies: Critical Thinking, Professional Valuing/Caring, and Professional Role Development;
- demonstrate Interpersonal Effectiveness as evidenced by progressing from awareness to knowledge to proficiency in the following competencies: Communication, Teaching/Learning, and Technology Utilization;
- demonstrate Effectiveness in Human Health Outcomes as evidenced by progressing from awareness to knowledge to proficiency in the following competencies: Health Promotion and Disease Prevention and Evidence-Based Care; and
- demonstrate Effectiveness Within Complex Health Systems as evidenced by progressing from awareness to knowledge to proficiency in the following competencies: Leadership/Management, Global Perspectives, and Health Care Systems and Policy.

Admissions

Students begin the BSN Pre-licensure program as Bachelor of Health Sciences (BHS) Pre-Nurse students. Refer to Major Map for additional details.

Students fulfill all prerequisite courses prior to enrolling in nursing courses.
Students must earn a grade of B- or better in all pre-requisite courses required for admission to the nursing program. Students who receive a grade of less than B- may repeat these courses. Nursing courses may not be attempted more than twice. The only nursing courses that may be taken prior to admission into the nursing program are NURS 101, NURS 120, NURS 125, NURS 160, NURS 252 and/or NURS 345. Students who wish to take nursing courses after notification of admission to the nursing program the summer before beginning the clinical major may do so but the SoNHS Policies & Procedures for BSN PL and AT Program will apply.

Once admitted to the nursing program, students must achieve a grade of C or better in all general education courses and a B- or better in all nursing courses.

During Phase I as Bachelor of Health Sciences (BHS) Pre-Nursing students the following courses must be completed with a minimum grade of B-.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 120</td>
<td>Anatomy &amp; Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>LS-MCRB 112</td>
<td>Microbiology and Living</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 206</td>
<td>Human Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>or NURSE 252</td>
<td>Human Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>NURS 160</td>
<td>Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 115 &amp; 115L</td>
<td>Elements Of Chemistry I and Elements Of Chemistry, Laboratory I</td>
<td>5</td>
</tr>
</tbody>
</table>

Once courses in Phase I are completed, an application is submitted to the BSN-PL program. Applications are due each January to begin the following fall semester. The remaining pre-requisite courses must be completed in the following spring semester in order to begin the BSN Clinical Program in the following fall semester, if an offer of admission is issued.

**Criteria for Admission to Nursing Major**

- Admission to UMKC
- Students must have completed a bachelor's degree from an accredited institution by the end of the spring semester of the year of application
- Students must maintain a 2.75 GPA each semester for all courses required in the nursing program attempted or earned
- Satisfactory completion of all pre-requisite courses by the end of the spring semester of the year of application. Refer to Time Limit on Science Courses Policy (science courses taken must be no older than five years). Completed courses must include: Chemistry w/lab, Microbiology, Anatomy & Physiology with lab, Nutrition, and Human Growth & Development Across the Lifespan. In addition, a 300 or 400 level Statistics course can be taken prior to entering the clinical program, or can be taken the first semester if admitted into the clinical program.

**Procedure for Application to the Nursing Major**

- Submission of the School of Nursing and Health Studies Application materials which are posted in November on the School of Nursing and Health Studies website
- The Student Affairs Committee reviews all applications to the Nursing Major

**Program Requirements**

**Program Specific Recommendations for UMKC General Education Core (p. 2250) Coursework**

Anchor/Discourse and Focus General Education courses are waived (with the exception of Anchor/Discourse III) if student has an Associate’s degree from an accredited MO or KS community college. All Anchor/Discourse and Focus (and Foreign Language and American Government/History) waived if student has a prior Bachelor’s degree.

A minimum grade of C must be achieved in all required general education courses prior to or while admitted to the nursing program in order to continue progression in the nursing program. A grade of less than C (C-, D+, D, F, NR and Withdrawal Failing/WF) or Audit/AT is not satisfactory for progression.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>Anchor I (Reasoning and Values) 6</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor II (Culture and Diversity) 1,6</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Anchor III (Civic and Community Engagement) 2,6</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing) 3</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech) 4</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing) 5</td>
<td>3</td>
</tr>
<tr>
<td>Focus A 6</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Focus B (Satisfied in program requirements below)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied by the Constitution course requirement below)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Focus Elective (Satisfied in program requirements below)
'Total credits’ in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

<table>
<thead>
<tr>
<th>Total Credits</th>
<th>21</th>
</tr>
</thead>
</table>

1. Must be taken with Discourse II.
2. Must be taken with Discourse III.
3. Can also transfer in English Comp I or ACT English 30 or AP English Language 4+ score.
4. Can also transfer in English Comp II or Speech; Must be taken after Discourse I.
5. Must be taken after Discourse I and II.
6. See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

### Constitution Course Requirement

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits

<table>
<thead>
<tr>
<th>Credits</th>
<th>3</th>
</tr>
</thead>
</table>

1. Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

- Take an equivalent course from the list above at a regionally accredited institution.
- Earn credit for one of the above courses through AP, IB, or CLEP.
- Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
- Have a previous bachelors degree (or higher) from a regionally accredited institution.
- Have an Associate of Arts degree from a regionally accredited institution.
- Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

### Program Prerequisites

A minimum grade of B- is required for each pre-requisite course. Students taking science pre-requisites or admitted to the nursing program must achieve a grade of B- or better in all courses. Minimum nursing GPA is 2.75. A grade of less than B- (C+, C, C-, D+, D, F, NR and Withdrawal Failing/WF) or Audit/AT is not satisfactory for progression in the nursing program. Students must obtain a final grade of 80% or higher in order to progress in the nursing program. Students must also earn an 80% or higher on the combined average of the course examinations (defined as “Tests” and “Final Exams”) in order to progress in the nursing program.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 115</td>
<td>Elements Of Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>&amp; 115L</td>
<td>Elements Of Chemistry, Laboratory I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 206</td>
<td>Human Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 101</td>
<td>Introduction to Health Sciences</td>
<td>1</td>
</tr>
<tr>
<td>Foreign Language</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>HLSC 120</td>
<td>Anatomy &amp; Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>HLSC 160</td>
<td>Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (Focus B)</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 101</td>
<td>Introduction to Nursing</td>
<td>2</td>
</tr>
</tbody>
</table>
NURSE 252  Human Growth and Development (or approved equivalent) 3
NURSE 345  Quantitative Analysis In The Health Sciences (or approved equivalent) 3
LS-MCRB 112  Microbiology and Living 3

Total Credits 36

1 Waived if student has 60+ credit hours and a 3.5+ GPA.
2 The pre-licensure BSN degree requires only 3 credits (one course) of a foreign language. It can be ANY foreign language. We can also accept a sign language course instead (note: sign language is not taught/ offered at UMKC- you will have to go to another school if you wish to take that). If the prospective/current student is bilingual and 1 st language in the home was other than English, we waive the foreign language requirement for that particular student.
3 The courses Anatomy & Physiology, Chemistry with lab and Microbiology CANNOT BE OLDER THAN FIVE YEARS from when you are beginning the clinical program.

Professional Degree Requirements

The remaining courses below are clinical courses ONLY and will be completed by the student once formally accepted into the clinical major (six semesters-3 years long): You must be accepted into the three-year clinical program to begin these courses.

Once admitted to the nursing program, students must achieve a grade of C or better in all general education courses and a B- or better in all nursing courses.

Additional academic requirements, and policies and procedures are located in the School of Nursing and Health Studies Policies and Procedures Manual at http://sonhs.umkc.edu/wp-content/uploads/2014/10/policy-procedure.pdf. Please refer to this document.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURSE 125</td>
<td>Medical Terminology</td>
<td>1</td>
</tr>
<tr>
<td>NURSE 127</td>
<td>Drug Calculations</td>
<td>1</td>
</tr>
<tr>
<td>NURSE 220</td>
<td>Fundamental Concepts &amp; Skills</td>
<td>6</td>
</tr>
<tr>
<td>NURSE 230</td>
<td>Health In Aging</td>
<td>2</td>
</tr>
<tr>
<td>NURSE 250</td>
<td>Health Assessment for Nursing Practice</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 256</td>
<td>Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 262</td>
<td>Management of Adult Health I</td>
<td>5</td>
</tr>
<tr>
<td>NURSE 342</td>
<td>Legal &amp; Ethical Issues</td>
<td>2</td>
</tr>
<tr>
<td>NURSE 360</td>
<td>Management of Mental Health</td>
<td>4</td>
</tr>
<tr>
<td>NURSE 362</td>
<td>Management of Adult Health II</td>
<td>5</td>
</tr>
<tr>
<td>NURSE 364</td>
<td>Management of Maternal &amp; Family Health</td>
<td>4</td>
</tr>
<tr>
<td>NURSE 366</td>
<td>Management of Child &amp; Adolescent Health</td>
<td>4</td>
</tr>
<tr>
<td>NURSE 395</td>
<td>Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 462</td>
<td>Special Topics (Healthcare)</td>
<td>2</td>
</tr>
<tr>
<td>NURSE 465</td>
<td>Management of Community and Public Health Nursing</td>
<td>4</td>
</tr>
<tr>
<td>NURSE 467</td>
<td>Management of Critical &amp; Emergent Care</td>
<td>5</td>
</tr>
<tr>
<td>NURSE 468</td>
<td>Effectiveness in Complex Health Systems</td>
<td>4</td>
</tr>
<tr>
<td>NURSE 472</td>
<td>Clinical Internship</td>
<td>5</td>
</tr>
<tr>
<td>NURSE 476</td>
<td>Scientific Inquiry</td>
<td>3</td>
</tr>
</tbody>
</table>

Nursing Elective Courses at the 400 Level

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURSE 404</td>
<td>Introduction to Social Justice</td>
<td></td>
</tr>
<tr>
<td>NURSE 490</td>
<td>Special Topics</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 68

Graduation with a BSN degree does not guarantee licensure. Students must successfully complete the NCLEX exam and apply for licensure with their state’s Board of Nursing to obtain a license as a registered nurse.

Minimum GPA: 2.75

Total Credit Hours: 128
Accelerated (AT); (2nd Degree option for students with a previous bachelor’s degree)

Students in this program must already have a bachelor’s degree and will need to meet the same prerequisites and professional degree requirements as in the Pre-Licensure program above. Please see an advisor for a sample program of study.

RN-BSN (BSN Completion Program for students who are current RNs)

Student Learning Outcomes

Students graduating from this program will:

• incorporate knowledge from arts, humanities and sciences in the planning and provision of professional nursing care.
• demonstrate Personal Effectiveness as evidenced by progressing from awareness to knowledge to proficiency in the following competencies: Critical Thinking, Professional Valuing/Caring, and Professional Role Development.
• demonstrate Interpersonal Effectiveness as evidenced by progressing from awareness to knowledge to proficiency in the following competencies: Communication, Teaching/Learning, and Technology Utilization.
• demonstrate Effectiveness in Human Health Outcomes as evidenced by progressing from awareness to knowledge to proficiency in the following competencies: Health Promotion and Disease Prevention and Evidence-Based Care.
• demonstrate Effectiveness Within Complex Health Systems as evidenced by progressing from awareness to knowledge to proficiency in the following competencies: Leadership/Management, Global Perspectives, and Health Care Systems and Policy.

Nursing Completion Only Program (RN-BSN)

Admission

• Applicants applying to the RN-BSN program must have a Nursing diploma or Associates degree in nursing from a regionally accredited college or university, with a nursing program that is accredited by a nationally recognized nursing accrediting agency (CCNE or ACEN).
• Graduation from a state board of nursing – approved school of nursing. Applicants requesting admission to the BSN program who are graduates of diploma or non-accredited A.D.N. programs may be admitted on provisional status.
• Current unencumbered licensure as a registered nurse with licensure in the jurisdiction where clinical study is to be conducted. The license must remain unencumbered throughout the program. A student whose license becomes encumbered while in the program will be dismissed.
• Minimum cumulative GPA of 2.5 (on a 4.0 scale) from the basic school of nursing and all previous and subsequent college coursework. Students applying with a cumulative GPA ranging from 2.0 to 2.499 may be admitted on probation based on review of individual circumstances.
• Open and rolling admission program. Students may apply for any semester (fall, spring or summer) and once admitted, can enroll in courses as determined by their plan of study.
• Applicants from approved associate-level RN degree programs may be provisionally admitted to the RN-BSN program prior to securing licensure. If admitted as degree-seeking students, these applicants must provide documentation of a valid, unencumbered RN license prior to the end of their first term of enrollment in the RN-BSN program. For information regarding currently approved programs, contact the UMKC Nursing department.

Additional details regarding the admission process for applicants to the RN-BSN program can be found in the School of Nursing & Health Studies Policy & Procedure Manual at: sonhs.umkc.edu/wp-content/uploads/2014/10/policy-procedure.pdf.

The application is a two-step process:

• Apply and obtain acceptance to UMKC. (Note: acceptance from UMKC Admissions does not guarantee your acceptance into the RN-BSN program).
• Apply to the RN-BSN program by completing and submitting the “Supplemental Application”

Additional requirements:

• Valid, current and unencumbered RN license. If NCLEX results are pending, students must submit proof of licensure prior to the first nursing course (N481). Note: an unencumbered RN license must be maintained throughout the program.

Additional Notifications

State regulations require that UMKC be authorized to offer online degrees in the state where a student resides while enrolled in the program. UMKC is currently authorized to offer online programs in the states listed on the UMKC Online webpage: http://online.umkc.edu/state-authorization/. If you are in one of the online programs and there is a possibility that you would relocate to another state while enrolled in the program, you must notify your academic advisor or the program director immediately. Note that regulations in that state may stipulate additional or specific requirements that may prohibit or limit your ability to enroll in or complete the online degree through UMKC.
Required General Education Coursework
Students must complete 50 credit hours in general education coursework.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>or ENGLISH 110</td>
<td>English I: Introduction To Academic Prose</td>
<td></td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
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<tr>
<td>or ENGLISH 225</td>
<td>English II: Intermediate Academic Prose</td>
<td></td>
</tr>
<tr>
<td>or COMM-ST 110</td>
<td>Fundamentals Of Effective Speaking And Listening</td>
<td></td>
</tr>
<tr>
<td>PHILOS 210</td>
<td>Introduction to Philosophy</td>
<td>3</td>
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</tbody>
</table>

Constitution Course (choose one of the following):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government</td>
<td></td>
</tr>
</tbody>
</table>

Additional Hours: 38

Total Credits: 50

These courses are required for graduation and not for admission into the RN-BSN program.

*If you have already earned a bachelor’s degree or an associate of arts degree from a regionally accredited college, you are exempt from the above general education courses.

A minimum grade of C is required in all general education, science and nursing courses in order to progress in the nursing program. A grade of less than C (C-, D+, D, F, NR and Withdrawal Failing/WF) or Audit/AT is not satisfactory for progression.

Professional Degree Requirements

Lower Division Nursing courses
The lower division component of the RN-BSN track requires 28 credit hours of coursework which may be obtained in one of two ways:

- By transfer coursework from an associate degree program accredited by a nationally recognized nursing accrediting body;
- Successful passage of the National Council Licensure Examination (NCLEX).

Students requesting admission to the BSN program who are graduates of diploma or non-National League for Nursing (NLN) accredited Associates Degree in Nursing (ADN) programs may be admitted on provisional status. Upon completion of Nurse 481 - Block I: Tools for Personal Effectiveness (6 credit hours) and Nurse 482 - Block II: Tools for Interpersonal Effectiveness (3 hours) with a grade of C or better and a minimum semester GPA of 2.75, 28 hours of credit by NCLEX exam will be added to the UMKC transcript and the provisional status will be removed.

Upper Division Nursing courses
The upper division nursing courses below (400 level - 36 hours) are required to be completed through UMKC. Students must have a minimum cumulative GPA of 2.75 for all college credit attempted or earned coursework to enroll in any 200-level or higher nursing course. A semester GPA of 2.75 must be maintained to progress in the nursing curriculum.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>NURSE 345</td>
<td>Quantitative Analysis In The Health Sciences</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 395</td>
<td>Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 395</td>
<td>Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 417</td>
<td>Information Systems and Technology for Improved Health Care</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 476</td>
<td>Scientific Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 481</td>
<td>Block I: Tools for Personal Effectiveness</td>
<td>6</td>
</tr>
<tr>
<td>NURSE 482</td>
<td>Block II: Tools for Interpersonal Effectiveness</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 483</td>
<td>Block III: Effectiveness in Human Health Outcomes</td>
<td>6</td>
</tr>
<tr>
<td>NURSE 484</td>
<td>Block IV: Effectiveness in Complex Health Systems</td>
<td>6</td>
</tr>
<tr>
<td>NURSE 485</td>
<td>Application to Practice I</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 486</td>
<td>Application to Practice II</td>
<td>3</td>
</tr>
</tbody>
</table>

Minimum GPA: 2.75
Tools for Planning and Filling Academic Requirements

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

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UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.
**Bachelor of Science in Public Health**

**University Requirements**

**General Education**
The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

**Constitution Course**
Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.

**RooWriter Assessment**
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

**Exit Examinations**
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

**Student Learning Outcomes**

Students graduating from this program will:

- Apply foundational knowledge of the science of public health to analyze and address public health issues in the community.
- Students will transmit foundational knowledge of public health in both interpersonal and formal communications.
- Students will integrate, synthesize and apply knowledge through cumulative and experiential activities
- Create evidence-based public health programs relevant to the needs of communities.

**Bachelor of Science in Public Health (BSPH) Mission**
The Bachelor of Science in Public Health (BSPH) program aims to support the SoNHS' mission in preparing the health professional workforce in improving health outcomes. The mission is to develop public health leaders in practice and research for diverse careers and post-graduate education. Through an innovative combination of coursework, service learning, volunteerism, and a senior year evidence-based public health capstone, students will apply theoretical concepts in evidence-based programming and health policy development to attain the highest standards of health and well-being of diverse populations.

**Minor Options**
The BSPH requires completion of 120 credits of coursework, which includes elective coursework. Students are urged to align those elective classes within a targeted area of specialization. These minor options may enhance your marketability in the workplace.

**MINORS**
MINOR IN HEALTH SCIENCES
MINOR IN EXERCISE SCIENCE

**What can I do with a Bachelor of Science in Public Health?**
The UMKC BSPH degree is an ideal choice for those interested in a career focused on public health. UMKC is offering the BSPH Degree in response to the growing workforce demand for health professionals in public health. Students who pursue studies in public health have growing career options in both the public and private sector. Graduates may find careers in government settings, non-profit organizations, community health centers, workplace health and wellness companies and health promotion organizations.

**Student Organization**
BHS Society is a student organization centered around the health sciences field of study. The goals of this organization are to promote philanthropy within the community, advocate health education, and cultivate leadership among members.
Admissions
The structure of the BSPH program is based upon the extensive experience the SoNHS has with structuring nursing and health sciences programs. Students will complete 120 hours as required by UMKC for degree completion. Provisionally admitted students may not be admitted to the program. Transfer students must have a GPA of 2.5 or better. Students must maintain a 2.5 GPA to remain in the Bachelor of Science in Public Health. Academic advisors will assist students pursuing a BSPH in maximizing appropriate transfer credits ensuring a streamlined path through the program.

Progression Policy
Students in the BSPH program must earn a minimum grade of “C-” in all Public Health, Health Sciences, and Science and Math requirements (BIOLOGY 108/BIOLOGY 108L, LS-MCRB 112, LS-ANATO 218, CHEM 206, and MATH 110 or higher). They must earn a minimum grade of “D-” in non-Public Health/Health Sciences courses. For a full list of courses and the required grade, refer to the Major Map.

This means that a grade below a “C-” in a Health Sciences/Public Health/Science and Math requirements or below a “D-” in a non-Public Health/Health Sciences course will need to be repeated to earn a passing grade.

If a student’s cumulative GPA falls below 2.5, the student will be placed on Academic Probation. To be removed from Academic Probation, students must achieve a cumulative GPA of 2.5 within the next two successive semesters (if enrolling in summer classes, summer is included).

Students must be removed from Academic Probation within the next two successive semesters or they will be Academically Dismissed.

Program Requirements
Program Specific Recommendations for UMKC General Education Core Coursework

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<thead>
<tr>
<th>Code</th>
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<tr>
<td>Anchor I (ANCH 102 Recommended) 1</td>
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</tr>
<tr>
<td>Anchor II 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Anchor III 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300</td>
<td>Discourse III: Civic and Community Engagement (Speech and Writing)</td>
<td>3</td>
</tr>
<tr>
<td>Focus A 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Focus B (Satisfied in program requirements below) 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Focus C (May be satisfied by the Constitution course requirement below)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Focus Elective (Satisfied in program requirements below) 1</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 21

1 'Total credits’ in this section indicates the number of General Education Core credit hours that are not met by the degree specific requirements outlined below.

See the UMKC General Education Core (p. 2250) section of the catalog for available Anchor and Focus course options.

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td>1</td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C) 1</td>
<td></td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C) 1</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:
• Take an equivalent course from the list above at a regionally accredited institution.
• Earn credit for one of the above courses through AP, IB, or CLEP.
• Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.
• Have a previous bachelors degree (or higher) from a regionally accredited institution.
• Have an Associate of Arts degree from a regionally accredited institution.
• Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tr>
<td><strong>Science and Math Requirements</strong></td>
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<tr>
<td>BIOLOGY 108 &amp; 108L</td>
<td>General Biology I and General Biology I Laboratory (Focus B)</td>
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<tr>
<td>CHEM 206</td>
<td>Human Nutrition (Focus B)</td>
<td>3</td>
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<tr>
<td>LS-ANATO 218</td>
<td>Introductory Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>LS-MCRB 112</td>
<td>Microbiology and Living</td>
<td>3</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (or MATH 120 or higher; Focus B)</td>
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</tr>
<tr>
<td><strong>Total Credits</strong></td>
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<tr>
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<th>Title</th>
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<tr>
<td><strong>Major Requirements</strong></td>
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<tr>
<td>PBHL 158</td>
<td>Public Health Principles</td>
<td>3</td>
</tr>
<tr>
<td>PBHL 245</td>
<td>Qualitative Research Methods for Public Health</td>
<td>3</td>
</tr>
<tr>
<td>PBHL 358</td>
<td>Environmental Public Health</td>
<td>3</td>
</tr>
<tr>
<td>PBHL 335</td>
<td>Historical and Contemporary Issues in Public Health</td>
<td>3</td>
</tr>
<tr>
<td>PBHL 445</td>
<td>Core Competencies in Health Education</td>
<td>3</td>
</tr>
<tr>
<td>PBHL 458</td>
<td>Communicable Disease Investigation</td>
<td>3</td>
</tr>
<tr>
<td>PBHL 496</td>
<td>Evidence-Based Public Health Capstone &amp; Seminar</td>
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</tr>
<tr>
<td>HLSC 110</td>
<td>Personal Wellness</td>
<td>3</td>
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<tr>
<td>HLSC 300</td>
<td>Diversity in Health</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 310</td>
<td>Healthcare Systems</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 345</td>
<td>Quantitative Analysis in the Health Sciences</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 410</td>
<td>Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 430</td>
<td>Health Program Management</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 440</td>
<td>Policy and Ethics in Health</td>
<td>3</td>
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<tr>
<td>HLSC 450</td>
<td>Urban Health</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 460</td>
<td>Global Health</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 470</td>
<td>Technology, Marketing and Media in Health</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 476</td>
<td>Scientific Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 480</td>
<td>Leadership and Management in Health Professions</td>
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</tr>
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<td><strong>Total Credits</strong></td>
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<tr>
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<tbody>
<tr>
<td><strong>General Electives (Suggestions Below)</strong></td>
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<tr>
<td>ACCTNG 210</td>
<td>Introduction To Financial Accounting</td>
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<tr>
<td>CJC 101</td>
<td>Introduction To Criminal Justice</td>
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<tr>
<td>CJC 240</td>
<td>Delinquency And Juvenile Justice</td>
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<tr>
<td>CJC 351</td>
<td>Policing In The Community</td>
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<tr>
<td>ECON 201</td>
<td>Introduction To Economics I</td>
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</tr>
<tr>
<td>HLSC 200</td>
<td>First Aid / CPR</td>
<td></td>
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<tr>
<td>HLSC 315</td>
<td>Health Literacy</td>
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<tr>
<td>HLSC 490</td>
<td>Special Topics (Social Justice)</td>
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<tr>
<td>PUB-ADM 455</td>
<td>Non-Profit Leadership Issues</td>
<td></td>
</tr>
<tr>
<td>SOCIOL 337</td>
<td>Community Development In Urban America</td>
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</tr>
<tr>
<td>UPD 260</td>
<td>History Of Planning And Urban Design</td>
<td></td>
</tr>
</tbody>
</table>
Bachelor of Science in Public Health

Minimum GPA: 2.5
Total Credits: 120

Tools for Planning and Fulfilling Academic Requirements

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>UPD 280</td>
<td>Land Use Planning</td>
</tr>
<tr>
<td>UPD 332CZ</td>
<td>Environmental Sustainability</td>
</tr>
<tr>
<td>UPD 340</td>
<td>Neighborhood And Community Development</td>
</tr>
<tr>
<td>UPD 420</td>
<td>Transportation Planning</td>
</tr>
</tbody>
</table>
# Doctor of Nursing Practice Program

## BSN-DNP

### Student Learning Outcomes

Students graduating from this program will:

- Synthesize research-based evidence to create, implement, evaluate, and translate into practice
- Serve as leaders in nursing and health care by effecting organizational and/or public policy development
- Demonstrate expert knowledge, values, and skills to improve health outcomes in a specialized area and/or population foci of nursing
- Demonstrate expertise in increasingly complex practice, leadership, and/or faculty roles.

## Program Options

### On-site Emphasis Areas

- Adult-Gerontology Primary Care Nurse Practitioner (AGNP) (74 credit hours)
- Family Nurse Practitioner (FNP) (74 credit hours)
- Certified Registered Nurse Anesthetist (CRNA) (73 credit hours)

### Online Emphasis Areas

- Adult-Gerontology Primary Care Nurse Practitioner (AGNP) (74 credit hours)
- Family Nurse Practitioner (FNP) (74 credit hours)
- Pediatric Nurse Practitioner (PNP) (74 credit hours)
- Women’s Health Nurse Practitioner (WHNP) (74 credit hours)

## Core Coursework for the Nurse Practitioners

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>NURSE 5526</td>
<td>Health Promotion Across the Lifespan</td>
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</tr>
<tr>
<td>NURSE 5527</td>
<td>Cultural Diversity &amp; Values</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5528</td>
<td>Healthcare Policy &amp; Advocacy</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5529</td>
<td>Ethics in Advanced Practice &amp; Research</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5544</td>
<td>Advanced Health Assessment Skills</td>
<td>2</td>
</tr>
<tr>
<td>NURSE 5547</td>
<td>Diagnostic Reasoning/Advanced Assessment</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5548</td>
<td>Advanced Pathophysiology Across the Lifespan</td>
<td>3</td>
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<tr>
<td>NURSE 5549</td>
<td>Pharmacology Across the Life Span for Advanced Nursing Practice</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5549R</td>
<td>Pharmacokinetics &amp; Pharmacodynamics: Application for Graduate-Prepared Nurses</td>
<td>1</td>
</tr>
<tr>
<td>NURSE 5550</td>
<td>Theoretical Foundations in Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5555</td>
<td>Nursing Research</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5564A</td>
<td>Primary Care of Adults I</td>
<td>5</td>
</tr>
<tr>
<td>or NURSE 5564C</td>
<td>Primary Care of Children I</td>
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</tr>
<tr>
<td>or NURSE 5564F</td>
<td>Primary Care of Families I</td>
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<tr>
<td>or NURSE 5564W</td>
<td>Primary Health Care of Women</td>
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<tr>
<td>NURSE 5566A</td>
<td>Primary Care of Adult-Gerontology II</td>
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<td>or NURSE 5566F</td>
<td>Primary Care of Families I</td>
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<tr>
<td>NURSE 5601</td>
<td>Clinical Institute I</td>
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<tr>
<td>NURSE 5602</td>
<td>Healthcare Systems &amp; Leadership</td>
<td>3</td>
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<tr>
<td>NURSE 5608</td>
<td>Theory Development I</td>
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<tr>
<td>NURSE 5609</td>
<td>Clinical Institute II</td>
<td>1</td>
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<tr>
<td>NURSE 5611</td>
<td>Healthcare Economics &amp; Quality</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5613</td>
<td>Application of Evidence-based Practice I</td>
<td>3</td>
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<tr>
<td>NURSE 5617A</td>
<td>Application of Evidence-based Practice II</td>
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<td>NURSE 5617B</td>
<td>Application of Evidence-based Practice II</td>
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<tr>
<td>NURSE 5623A</td>
<td>Advanced Nursing Practice: Synthesis Practicum</td>
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<td>or NURSE 5623C</td>
<td>Advanced Nursing Practice: Synthesis Practicum</td>
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<tr>
<td>or NURSE 5623F</td>
<td>Advanced Nursing Practice: Synthesis Practicum</td>
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</table>
or NURSE 5623W  Advanced Nursing Practice: Synthesis Practicum

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>NURSE 5629</td>
<td>Clinical Institute III (Project Data &amp; Presentation)</td>
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<tr>
<td>NURSE 5621A</td>
<td>Clinical III</td>
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<tr>
<td>NURSE 5621C</td>
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<tr>
<td>NURSE 5621F</td>
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<td>NURSE 5621W</td>
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<tr>
<td>NURSE 5637</td>
<td>Healthcare Outcomes and Epidemiology</td>
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Total Credits 67

**Adult Gerontology Acute Care Nurse Practitioner Option (AGNP)**

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<td>NURSE 5531</td>
<td>Graduate Pharmacology Specialty</td>
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<tr>
<td>NURSE 55XX (Adult-Gerontology Acute Care I)</td>
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<tr>
<td>NURSE 55XX (Adult-Gerontology Acute Care II)</td>
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<tr>
<td>NURSE 55XX (Advanced Practice Clinical Practicum I)</td>
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<td>NURSE 55XX (Advanced Practice Clinical Practicum II)</td>
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Total Credits 16

**Family Nurse Practitioner Option (FNP)**

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<tbody>
<tr>
<td>NURSE 5549</td>
<td>Pharmacology Across the Life Span for Advanced Nursing Practice</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5564F</td>
<td>Primary Care of Families I</td>
<td>5</td>
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<tr>
<td>NURSE 5566F</td>
<td>Primary Care of Families II</td>
<td>5</td>
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<tr>
<td>NURSE 5572</td>
<td>Advanced Nursing Practice: Synthesis Practicum</td>
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Total Credits 18

**Nurse Anesthetists (CRNA) Coursework**

<table>
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<tbody>
<tr>
<td>BIOLOGY 5510</td>
<td>Gross Anatomy for Nurse Anesthetists</td>
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<tr>
<td>BIOLOGY 5510L</td>
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<tr>
<td>BIOLOGY 5539</td>
<td>Mammalian Physiology</td>
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<tr>
<td>BIOLOGY 5540</td>
<td>Pathophysiology</td>
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<tr>
<td>LS-MBB 5510</td>
<td>Graduate Biochemistry for Nurse Anesthetists</td>
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<td>PHARM 5520</td>
<td>Pharmacology II</td>
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<td>PHARM 5530</td>
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<td>NURSE 5555</td>
<td>Nursing Research</td>
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<tr>
<td>NURSE 5607NA</td>
<td>Health Care Policy and Leadership for the Nurse Anesthetist</td>
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<tr>
<td>NURSE 5609</td>
<td>Clinical Institute II</td>
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<tr>
<td>NURSE 5612</td>
<td>Statistics I</td>
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<td>NURSE 5615NA</td>
<td>Chemistry and Physics for the Nurse Anesthetist</td>
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<tr>
<td>NURSE 5619NA0</td>
<td>Orientation to Nurse Anesthesia Practice</td>
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<tr>
<td>NURSE 5619NA1</td>
<td>Principles of Nurse Anesthesia Practice I</td>
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<tr>
<td>NURSE 5619NA2</td>
<td>Principles of Nurse Anesthesia II</td>
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<tr>
<td>NURSE 5619NA3</td>
<td>Principles of Nurse Anesthesia Practice III</td>
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<tr>
<td>NURSE 5619NAB</td>
<td>Basic Principles of Nurse Anesthesia Practice</td>
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<td>NURSE 5627NA</td>
<td>Regional Anesthesia</td>
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<td>NURSE 5628NA1</td>
<td>Advanced Physical Health Assessment for the Nurse Anesthetist I</td>
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<tr>
<td>NURSE 5636NA</td>
<td>Obstetrical Anesthesia</td>
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<td>NURSE 5637</td>
<td>Healthcare Outcomes and Epidemiology</td>
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<tr>
<td>NURSE 5638NA1</td>
<td>Pharmacology of Anesthesia I</td>
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<td>NURSE 5638NA2</td>
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<tr>
<td>NURSE 5640NA</td>
<td>Pediatric Anesthesia</td>
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<tr>
<td>NURSE 5641NA</td>
<td>Acute and Chronic Pain Management</td>
<td>1</td>
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<tr>
<td>NURSE 5642NA</td>
<td>Comprehensive Review</td>
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<td>NURSE 5643NA</td>
<td>Professional Practice for the Nurse Anesthetist</td>
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<td>NURSE 5650NAO</td>
<td>Clinical Anesthesia Orientation</td>
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<td>NURSE 5650NA3</td>
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<td>Clinical Anesthesia IV</td>
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<td>NURSE 5650NA5</td>
<td>Clinical Anesthesia V</td>
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<td>NURSE 5650NA6</td>
<td>Clinical Anesthesia VI</td>
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<tr>
<td>NURSE 5659NA</td>
<td>Health Systems, Economics and Quality in Nurse Anesthesia Practice</td>
<td>2</td>
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<tr>
<td>NURSE 5661NA1</td>
<td>Anesthesia &amp; Co-Existing Diseases I</td>
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<tr>
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<td>Anesthesia &amp; Co-Existing Diseases II</td>
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<tr>
<td>NURSE 5674NA1</td>
<td>Scholarly Project in Nurse Anesthesia I</td>
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<tr>
<td>NURSE 5674NA2</td>
<td>Scholarly Project in Nurse Anesthesia II</td>
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<tr>
<td>NURSE 5674NA3</td>
<td>Scholarly Project in Nurse Anesthesia III</td>
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<td>NURSE 5674NA4</td>
<td>Scholarly Project in Nurse Anesthesist IV</td>
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<tr>
<td>NURSE 56XX (Acute Crisis)</td>
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**Total Credits:** 74

**Pediatric Nurse Practitioner Option (PNP)**

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</thead>
<tbody>
<tr>
<td>NURSE 5549</td>
<td>Pharmacology Across the Life Span for Advanced Nursing Practice</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5564C</td>
<td>Primary Care of Children I</td>
<td>5</td>
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<tr>
<td>NURSE 5566C</td>
<td>Chronic Child Health Care (Clinical II)</td>
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<tr>
<td>NURSE 5572</td>
<td>Advanced Nursing Practice: Synthesis Practicum</td>
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**Total Credits:** 18

**Women's Health Nurse Practitioner Option (WHNP)**

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<tbody>
<tr>
<td>NURSE 5549</td>
<td>Pharmacology Across the Life Span for Advanced Nursing Practice</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5564F</td>
<td>Primary Care of Families I</td>
<td>5</td>
</tr>
<tr>
<td>NURSE 5566F</td>
<td>Primary Care of Families II</td>
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</tr>
<tr>
<td>NURSE 5572</td>
<td>Advanced Nursing Practice: Synthesis Practicum</td>
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</tbody>
</table>

**Total Credits:** 18

**APRN MSN-DNP**

**Student Learning Outcomes**

Graduates of the DNP program will be prepared to:

1. Synthesize research-based evidence to create, implement, evaluate, and translate into practice
2. Serve as leaders in nursing and health care by effecting organizational and/or public policy development
3. Demonstrate expert knowledge, values, and skills to improve health outcomes in a specialized area and/or population foci of nursing
4. Demonstrate expertise in increasingly complex practice, leadership, and/or faculty roles.

**Program Course Requirements**

**Pre-Requisite Coursework**

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<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>NURSE 5550</td>
<td>Theoretical Foundations in Nursing</td>
<td>3</td>
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<tr>
<td>NURSE 5555</td>
<td>Nursing Research</td>
<td>3</td>
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</table>
### Core Coursework

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<tbody>
<tr>
<td>NURSE 5528</td>
<td>Healthcare Policy &amp; Advocacy</td>
<td>3</td>
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<tr>
<td>NURSE 5602</td>
<td>Healthcare Systems &amp; Leadership (and four days on-site)</td>
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<tr>
<td>NURSE 5608</td>
<td>Theory Development I</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5664</td>
<td>Concepts &amp; Approaches of Epidemiology &amp; Statistics in Research</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5611</td>
<td>Healthcare Economics &amp; Quality</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5613</td>
<td>Application of Evidence-based Practice I</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5617</td>
<td>Application of Evidence-based Practice II (DNP Clinical and a 2-4 day site visit)</td>
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<tr>
<td>NURSE 5620</td>
<td>Advanced Practice V - DNP Clinical</td>
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<tr>
<td>NURSE 5624</td>
<td>Advanced Practice VI-DNP Practicum</td>
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Total Credits: 31
Facilities

The University of Missouri-Kansas City has extensive educational facilities on the Volker campus combined with the health care educational facilities and the School of Nursing and Health Studies offices on Hospital Hill campus. Facilities include libraries, resource centers, audiovisual resources, data processing and science information specialists. The affiliated clinical facilities include Truman Medical Center, Children's Mercy Hospital and nearly 100 community-wide facilities in the Kansas City metro area.
Financial Assistance

The School of Nursing and Health Studies offers a range of scholarships, traineeships and other funds for both full- and part-time graduate and undergraduate nursing students. Students who complete the Free Application for Federal Student Aid (FAFSA) are eligible for the following:

- Brisley Phillips Scholarship
- Chuck and Glo Curtis Scholarship
- Claudene L. Iwig Scholarship
- General Hospital Memorial Scholarship
- Goppert Scholarship
- Helen Blond Scholarship
- John S. Waggoner Memorial Nursing Scholarship
- Laura Larkin Dexter Scholarship
- RN - BSN Scholarship
- Susie Sinton Scholarship

Other funds may be available for students demonstrating financial need. Applications for nursing scholarships are considered after submission of the FAFSA. Priority deadline for that submission is February 1. Further information about applications and qualifications for any of these funds may be obtained from the School of Nursing and Health Studies Student Services Office, room 1410, 2464 Charlotte Street, Kansas City, MO 64108-2718.
History

In 1973-74, a graduate nursing program was started under the aegis of the School of Graduate Studies. On Nov. 16, 1979, the Board of Curators approved a proposal to establish a school of nursing at the University of Missouri-Kansas City. In 1981, following a developmental period, two new curricula were implemented. These were an upper-division baccalaureate degree for registered nurses and a revised master’s degree program for clinical nurse specialists. In 1992, the Board of Curators approved the offering of an inter-campus, cooperative doctoral program in nursing (Ph.D. N.D.). The doctoral curricula was implemented on the Kansas City campus in the Fall Semester of 1995. In 2000, the Board of Curators approved the offering of a pre-licensure baccalaureate degree program beginning in the Fall Semester of 2001. The Board of Curators approved the Doctor of Nursing Practice (DNP) program which began in 2007 and graduated its first post-master’s class in December 2008. A name change to the School of Nursing and Health Studies was approved in February 2013 following the opening of the Bachelor of Health Sciences (BHS) began in the fall of 2011. The Masters level Nurse Practitioner tracks were re-opened in Fall 2016 and Post MSN Certificate Program was opened in 2017. In 2018, the Bachelor of Public Health (BSPH) and Masters level Acute Care Pediatric Nurse Practitioner track were opened and began enrolling students in the spring 2018.
International Students

The School of Nursing and Health Studies coordinates recruitment, retention and continuing advisement for nursing students from abroad in cooperation with the University’s Office of International Student Affairs. In addition to the English proficiency examination (TOEFL), all graduates of foreign schools of nursing must complete the Commission on Graduates of Foreign Nursing Schools (CGFNS) qualifying examinations. This will enable registered nurses applying to the School of Nursing and Health Studies to take the National Council Licensure Examinations (NCLEX) for licensure as a registered nurse in Missouri. Students who are registered nurses must also send official transcripts to the CGFNS to determine degree equivalencies. Information about specific requirements for admission and progression may be obtained from the School of Nursing and Health Studies Student Services Office. The School of Nursing and Health Studies retains the right to assess the level of current clinical skills prior to enrollment in clinical coursework.
Master of Science in Nursing (M.S.N.)

Student Learning Outcomes

Students graduating from this program will:

- Implement skills and strategies to advance professional nursing and health across populations and settings.
- Integrate theory and research in evidence-based nursing and teaching practice.
- Serve as a leader in unit and organizational based change.

Degree Requirements

Students have the option to attend full-time or part-time. Nurse practitioner students choosing to attend full-time must begin in a summer semester.

Core Courses Required of all Students

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<td>Health Promotion Across the Lifespan</td>
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<tr>
<td>NURSE 5527</td>
<td>Cultural Diversity &amp; Values</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5528</td>
<td>Healthcare Policy &amp; Advocacy</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5550</td>
<td>Theoretical Foundations in Nursing</td>
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<td>NURSE 5555</td>
<td>Nursing Research</td>
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Acute Care Pediatric Nurse Practitioner Option

Additional Required Courses

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<tbody>
<tr>
<td>NURSE 5529</td>
<td>Ethics in Advanced Practice &amp; Research</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5531</td>
<td>Graduate Pharmacology Specialty</td>
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</tr>
<tr>
<td>NURSE 5532</td>
<td>Pediatric Acute Care I</td>
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<td>NURSE 5533</td>
<td>Pediatric Acute Care II</td>
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<tr>
<td>NURSE 5534</td>
<td>Advanced Practice Clinical Practicum I (Pediatric Acute Care)</td>
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<td>NURSE 5535</td>
<td>Advanced Practice Clinical Practicum II (Pediatric Acute Care)</td>
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<tr>
<td>NURSE 5544</td>
<td>Advanced Health Assessment Skills</td>
<td>2</td>
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<tr>
<td>NURSE 5547</td>
<td>Diagnostic Reasoning/Advanced Assessment</td>
<td>3</td>
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<tr>
<td>NURSE 5548</td>
<td>Advanced Pathophysiology Across the Lifespan</td>
<td>3</td>
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<tr>
<td>NURSE 5549</td>
<td>Pharmacology Across the Life Span for Advanced Nursing Practice</td>
<td>3</td>
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<tr>
<td>NURSE 5549R</td>
<td>Pharmacokinetics &amp; Pharmacodynamics: Application for Graduate-Prepared Nurses</td>
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<td>NURSE 5572</td>
<td>Advanced Nursing Practice: Synthesis Practicum</td>
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<td>NURSE 5601</td>
<td>Clinical Institute I</td>
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Adult Gerontology Nurse Practitioner Option

Additional Required Courses

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<td>Pharmacology Across the Life Span for Advanced Nursing Practice</td>
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<tr>
<td>NURSE 5564A</td>
<td>Primary Care of Adults I</td>
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<td>NURSE 5566A</td>
<td>Primary Care of Adult-Gerontology II</td>
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<td>NURSE 5572</td>
<td>Advanced Nursing Practice: Synthesis Practicum</td>
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<td>NURSE 5601</td>
<td>Clinical Institute I</td>
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<td>NURSE 5544</td>
<td>Advanced Health Assessment Skills</td>
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<tr>
<td>NURSE 5547A</td>
<td>Diagnostic Reasoning/Advanced Assessment</td>
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<tr>
<td>NURSE 5548</td>
<td>Advanced Pathophysiology Across the Lifespan</td>
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<td>NURSE 5549R</td>
<td>Pharmacokinetics &amp; Pharmacodynamics: Application for Graduate-Prepared Nurses</td>
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### Family Nurse Practitioner Option

#### Additional Required Courses

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<tr>
<td>NURSE 5564F</td>
<td>Primary Care of Families I</td>
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<td>NURSE 5566F</td>
<td>Primary Care of Families II</td>
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<tr>
<td>NURSE 5572</td>
<td>Advanced Nursing Practice: Synthesis Practicum</td>
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</tr>
<tr>
<td>NURSE 5601</td>
<td>Clinical Institute I</td>
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<td>Advanced Health Assessment Skills</td>
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<td>Diagnostic Reasoning/Advanced Assessment</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5548</td>
<td>Advanced Pathophysiology Across the Lifespan</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5549R</td>
<td>Pharmacokinetics &amp; Pharmacodynamics: Application for Graduate-Prepared Nurses</td>
<td>1</td>
</tr>
<tr>
<td>NURSE 5529</td>
<td>Ethics in Advanced Practice &amp; Research</td>
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Total Credits: 31

### Neonatal Nurse Practitioner Option

#### Additional Required Courses

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<td>NURSE 5548</td>
<td>Advanced Pathophysiology Across the Lifespan</td>
<td>3</td>
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<tr>
<td>NURSE 5548N</td>
<td>Physiology/Pathophysiology Of The Neonate</td>
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<tr>
<td>NURSE 5549N</td>
<td>Advanced Assessment of the Neonate</td>
<td>3</td>
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<tr>
<td>NURSE 5547N</td>
<td>Advanced Assessment of the Neonate</td>
<td>3</td>
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<tr>
<td>NURSE 5564N</td>
<td>Neonatal Nursing I</td>
<td>3</td>
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<tr>
<td>NURSE 5566N</td>
<td>Neonatal Nursing II</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5572NI</td>
<td>Preceptorship I</td>
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<tr>
<td>NURSE 5572II</td>
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Total Credits: 27

### Nurse Educator Option

#### Additional Required Courses

<table>
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<th>Title</th>
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<td>NURSE 5515NE</td>
<td>Role of the Nurse Educator</td>
<td>2</td>
</tr>
<tr>
<td>NURSE 5516</td>
<td>Curriculum Development in Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5517</td>
<td>Teaching Strategies in Nursing</td>
<td>2</td>
</tr>
<tr>
<td>NURSE 5544</td>
<td>Advanced Health Assessment Skills</td>
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<tr>
<td>NURSE 5559</td>
<td>Evaluation Methods in Nursing</td>
<td>2</td>
</tr>
<tr>
<td>NURSE 5548</td>
<td>Advanced Pathophysiology Across the Lifespan</td>
<td>3</td>
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<tr>
<td>NURSE 5549R</td>
<td>Pharmacokinetics &amp; Pharmacodynamics: Application for Graduate-Prepared Nurses</td>
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<tr>
<td>NURSE 5564NE</td>
<td>Clinical for Nurse Educators</td>
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<tr>
<td>NURSE 5572NE</td>
<td>Synthesis Practicum for Nurse Educators</td>
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One of the following:

- NURSE 5598 | Directed Research
- NURSE 5558 | Research Design
- NURSE 5556 | Program Evaluation

Total Credits: 26

### Pediatric Nurse Practitioner Option

#### Additional Required Courses
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<tr>
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<td>Primary Care of Children I</td>
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<td>Chronic Child Health Care (Clinical II)</td>
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<tr>
<td>NURSE 5572</td>
<td>Advanced Nursing Practice: Synthesis Practicum</td>
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<td>NURSE 5601</td>
<td>Clinical Institute I</td>
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<td>Advanced Health Assessment Skills</td>
<td>2</td>
</tr>
<tr>
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<td>Advanced Pathophysiology Across the Lifespan</td>
<td>3</td>
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<tr>
<td>NURSE 5547C</td>
<td>Diagnostic Reasoning/Advanced Assessment</td>
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<td>NURSE 5529</td>
<td>Ethics in Advanced Practice &amp; Research</td>
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<td>Pharmacokinetics &amp; Pharmacodynamics: Application for Graduate-Prepared Nurses</td>
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**Psychiatric Mental Health Nurse Practitioner Option**

Additional Required Courses

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<tr>
<td>NURSE 5548</td>
<td>Advanced Pathophysiology Across the Lifespan</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5549R</td>
<td>Pharmacokinetics &amp; Pharmacodynamics: Application for Graduate-Prepared Nurses</td>
<td>1</td>
</tr>
<tr>
<td>NURSE 5546</td>
<td>Foundations of Family Psychiatric Nursing Advanced Practice</td>
<td>3</td>
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<tr>
<td>NURSE 5547M</td>
<td>Diagnostic Reasoning/Health Assessment</td>
<td>3</td>
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<tr>
<td>NURSE 5549</td>
<td>Pharmacology Across the Life Span for Advanced Nursing Practice</td>
<td>3</td>
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<tr>
<td>NURSE 5564M</td>
<td>Family Psychiatric Nursing Advanced Practice I</td>
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</tr>
<tr>
<td>NURSE 5566M</td>
<td>Family Psychiatric Nursing Advanced Practice II</td>
<td>5</td>
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<tr>
<td>NURSE 5572M</td>
<td>Advanced Nursing Practice: Synthesis Practicum</td>
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**Women's Health Nurse Practitioner Option**

Additional Required Courses

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<td>Pharmacology Across the Life Span for Advanced Nursing Practice</td>
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<tr>
<td>NURSE 5564W</td>
<td>Primary Health Care of Women</td>
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<td>Care of the Childbearing Woman</td>
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<tr>
<td>NURSE 5572</td>
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<tr>
<td>NURSE 5601</td>
<td>Clinical Institute I</td>
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</tr>
<tr>
<td>NURSE 5548</td>
<td>Advanced Pathophysiology Across the Lifespan</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5544</td>
<td>Advanced Health Assessment Skills</td>
<td>2</td>
</tr>
<tr>
<td>NURSE 5547W</td>
<td>Diagnostic Reasoning/Advanced Assessment</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5549R</td>
<td>Pharmacokinetics &amp; Pharmacodynamics: Application for Graduate-Prepared Nurses</td>
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</tr>
<tr>
<td>NURSE 5529</td>
<td>Ethics in Advanced Practice &amp; Research</td>
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</table>

**Total Credit Hours for the Degree: 47**
Nurse Educator Certificate

Student Learning Outcomes

Students graduating from this program will:

• Implement skills and strategies to advance professional nursing and health across populations and settings
• Synthesize teaching/learning theories and research
• Design curriculum to address the diverse learning needs of students in the educational environment.

Program Description

Hands-on experience in objective writing, teaching, clinical instructing, test writing and student management are offered through educational experiences provided by master educators.

Completion of the program meets the educational requirements to be eligible for the NLN CNE Certification Exam. There are four courses required for the program with a total of 12 credit hours. All courses must be completed within three years.

Note: Students are responsible for arranging their clinical preceptor (http://sonhs.umkc.edu/wp-content/uploads/2014/10/preceptor-agreement.pdf) and site for the Practicum course. It is the student’s responsibility to maintain clinical eligibility to practice during the program. It is recommended that the student become comfortable in the clinical setting in preparation for Practicum.

Program Admission Requirements

In addition to the admission requirements for UMKC, the requirements for admission into the NEC program are:

• MSN from an accredited nursing program
• Submission of current resume or curricula vitae
• Copy of current licensure as a registered nurse with licensure in the jurisdiction where clinical study is to be conducted

The Post-Master’s NE Certificate Program Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>NURSE 5515NE</td>
<td>Role of the Nurse Educator</td>
<td>2</td>
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<td>NURSE 5516</td>
<td>Curriculum Development in Nursing</td>
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<td>NURSE 5517</td>
<td>Teaching Strategies in Nursing</td>
<td>2</td>
</tr>
<tr>
<td>NURSE 5572NE</td>
<td>Synthesis Practicum for Nurse Educators (Preceptorship Course)</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5559</td>
<td>Evaluation Methods in Nursing</td>
<td>2</td>
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</table>
Post-MSN Nurse Practitioner Certificates

UMKC offers post-master’s nurse practitioner certificate programs for students who possess an M.S.N. or D.N.P. and who wish to pursue a nurse practitioner certificate in a specialty area of care (tracks) without completing another degree. Please refer to the Graduate Admissions (http://sonhs.umkc.edu/admissions/graduate-admissions) page on the SoNHS website for more information regarding admission and required materials.

The sample plans of study listed represent the minimum required courses. Based on previous course work, additional courses may be required as determined by each certification board*. After admission is confirmed, a gap analysis and individualized program of study will be completed and developed based on previous course work. The following courses are the usual prerequisite graduate level course work (or equivalent) to be completed prior to or as part of the certificate program of study. These courses may be from your MSN graduate program or completed at UMKC with your certificate hours. Completion of Post-MSN Nurse Practitioner certificates meets the educational requirements to be eligible to sit for the national accreditation exam in that area.

*Minimum requirements from certification boards include the following:

Advanced pathophysiology
Advanced pharmacology/applied pharmacology
Advanced health assessment across the lifespan
Diagnostic Reasoning for the APRN
Health promotion

The certificate options available are listed below:

Post-MSN Acute Care Pediatric Nurse Practitioner Certificate

Student Learning Outcomes

Students graduating from this program will:

• Implement skills and strategies to advance professional nursing and health across acute care pediatric populations and settings.

Post-MSN Acute Care Pediatric Nurse Practitioner (16 credit hours)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tr>
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<td>Graduate Pharmacology Specialty</td>
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<td>NURSE 5532</td>
<td>Pediatric Acute Care I</td>
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<tr>
<td>NURSE 5533</td>
<td>Pediatric Acute Care II</td>
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<td>NURSE 5534</td>
<td>Advanced Practice Clinical Practicum I (Pediatric Acute Care)</td>
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<td>NURSE 5535</td>
<td>Advanced Practice Clinical Practicum II (Pediatric Acute Care)</td>
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Post-MSN Adult Gerontology Nurse Practitioner Certificate

Student Learning Outcomes

Students graduating from this program will:

• Implement skills and strategies to advance professional nursing and health across adult/geriatric populations and settings.

Post-MSN Adult Gerontology Nurse Practitioner (18 credit hours)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURSE 5549</td>
<td>Pharmacology Across the Life Span for Advanced Nursing Practice</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5564A</td>
<td>Primary Care of Adults I</td>
<td>5</td>
</tr>
<tr>
<td>NURSE 5566A</td>
<td>Primary Care of Adult-Gerontology II</td>
<td>5</td>
</tr>
<tr>
<td>NURSE 5572</td>
<td>Advanced Nursing Practice: Synthesis Practicum</td>
<td>5</td>
</tr>
<tr>
<td>Total Credits</td>
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</table>

Post-MSN Family Nurse Practitioner Certificate

Student Learning Outcomes

Students graduating from this program will:
• Implement skills and strategies to advance professional nursing and health across populations and settings.
• Integrate theory and research in evidence-based nursing practice.
• Serve as a leader in unit and organization-based change.

### Post-MSN Family Nurse Practitioner Certificate (18 credit hours)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>NURSE 5549</td>
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<tr>
<td>NURSE 5564F</td>
<td>Primary Care of Families I</td>
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<td>NURSE 5566F</td>
<td>Primary Care of Families II</td>
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<tr>
<td>NURSE 5572</td>
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</tr>
<tr>
<td><strong>Total Credits</strong></td>
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</table>

### Post-MSN Neonatal Nurse Practitioner Certificate

#### Student Learning Outcomes

Students graduating from this program will:

• Implement skills and strategies to advance professional nursing and health across populations and settings.

### Post-MSN Neonatal Nurse Practitioner Certificate (24 credit hours)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>NURSE 5548N</td>
<td>Physiology/Pathophysiology Of The Neonate</td>
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<tr>
<td>NURSE 5549N</td>
<td>Advanced Assessment of the Neonate</td>
<td>3</td>
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<tr>
<td>NURSE 5547N</td>
<td>Advanced Assessment of the Neonate</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5564N</td>
<td>Neonatal Nursing I</td>
<td>3</td>
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<tr>
<td>NURSE 5566N</td>
<td>Neonatal Nursing II</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5572NI</td>
<td>Preceptorship I</td>
<td>5</td>
</tr>
<tr>
<td>NURSE 5572II</td>
<td>Preceptorship II</td>
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<tr>
<td><strong>Total Credits</strong></td>
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### Post-MSN Pediatric Nurse Practitioner Certificate

#### Student Learning Outcomes

Students graduating from this program will:

• Implement skills and strategies to advance professional nursing and health across populations and settings.

### Post-MSN Neonatal Nurse Practitioner Certificate (24 credit hours)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURSE 5548N</td>
<td>Physiology/Pathophysiology Of The Neonate</td>
<td>2</td>
</tr>
<tr>
<td>NURSE 5549N</td>
<td>Advanced Assessment of the Neonate</td>
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<td>NURSE 5564N</td>
<td>Neonatal Nursing I</td>
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<td>NURSE 5572NI</td>
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### Post-MSN Psychiatric Mental Health Nurse Practitioner Certificate

#### Student Learning Outcomes

Students graduating from this program will:

• Implement skills and strategies to advance professional nursing and health across populations and settings.
Post-MSN Psychiatric Mental Health Nurse Practitioner (16 credit hours)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tr>
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<td>Foundations of Family Psychiatric Nursing Advanced Practice</td>
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<td>Family Psychiatric Nursing Advanced Practice II</td>
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Post-MSN Women's Health Nurse Practitioner Certificate

Student Learning Outcomes

Students graduating from this program will:

- Implement skills and strategies to advance professional nursing and health across women's health populations and settings.

Post-MSN Women's Health Nurse Practitioner (18 credit hours)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
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<td>Primary Care of Families I</td>
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</table>
Post-MSN Adult Gerontology Nurse Practitioner Certificate

Student Learning Outcomes

Students graduating from this program will:

• Implement skills and strategies to advance professional nursing and health across adult/geriatric populations and settings.

Post-MSN Adult Gerontology Nurse Practitioner (18 credit hours)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>NURSE 5549</td>
<td>Pharmacology Across the Life Span for Advanced Nursing Practice</td>
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<tr>
<td>NURSE 5564A</td>
<td>Primary Care of Adults I</td>
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<td>NURSE 5566A</td>
<td>Primary Care of Adult-Gerontology II</td>
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</tr>
<tr>
<td>NURSE 5572</td>
<td>Advanced Nursing Practice: Synthesis Practicum</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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</tbody>
</table>
Post-MSN Family Nurse Practitioner Certificate

Student Learning Outcomes

Students graduating from this program will:

- Implement skills and strategies to advance professional nursing and health across populations and settings.
- Integrate theory and research in evidence-based nursing practice.
- Serve as a leader in unit and organization-based change.

Post-MSN Family Nurse Practitioner (18 credit hours)

<table>
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<tr>
<th>Code</th>
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<tbody>
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<td>18</td>
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</tbody>
</table>
Post-MSN Neonatal Nurse Practitioner Certificate

Student Learning Outcomes

Students graduating from this program will:

• Implement skills and strategies to advance professional nursing and health across populations and settings.

Post-MSN Neonatal Nurse Practitioner Certificate (24 credit hours)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURSE 5548N</td>
<td>Physiology/Pathophysiology Of The Neonate</td>
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<tr>
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<td>Advanced Assessment of the Neonate</td>
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</tr>
<tr>
<td>NURSE 5547N</td>
<td>Advanced Assessment of the Neonate</td>
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<tr>
<td>NURSE 5564N</td>
<td>Neonatal Nursing I</td>
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<tr>
<td>NURSE 5566N</td>
<td>Neonatal Nursing II</td>
<td>3</td>
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<tr>
<td>NURSE 5572NI</td>
<td>Preceptorship I</td>
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<tr>
<td>NURSE 5572II</td>
<td>Preceptorship II</td>
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</table>

Total Credits 24
Post-MSN Pediatric Nurse Practitioner Certificate

Student Learning Outcomes

Students graduating from this program will:

• Implement skills and strategies to advance professional nursing and health across pediatric populations and settings.

Post-MSN Pediatric Nurse Practitioner (17 credit hours)

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>NURSE 5549</td>
<td>Pharmacology Across the Life Span for Advanced Nursing Practice</td>
<td>3</td>
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<tr>
<td>NURSE 5564C</td>
<td>Primary Care of Children I</td>
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<tr>
<td>NURSE 5566C</td>
<td>Chronic Child Health Care (Clinical II)</td>
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<td>NURSE 5572</td>
<td>Advanced Nursing Practice: Synthesis Practicum</td>
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</tbody>
</table>
Post-MSN Psychiatric Mental Health Nurse Practitioner Certificate

Student Learning Outcomes

Students graduating from this program will:

- Implement skills and strategies to advance professional nursing and health across populations and settings.

Post-MSN Psychiatric Mental Health Nurse Practitioner (16 credit hours)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>NURSE 5546</td>
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<tr>
<td>NURSE 5566M</td>
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<tr>
<td>NURSE 5572M</td>
<td>Advanced Nursing Practice: Synthesis Practicum</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>
Post-MSN Women's Health Nurse Practitioner Certificate

Student Learning Outcomes

Students graduating from this program will:

- Implement skills and strategies to advance professional nursing and health across women's health populations and settings.

Post-MSN Women's Health Nurse Practitioner (18 credit hours)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>NURSE 5549</td>
<td>Pharmacology Across the Life Span for Advanced Nursing Practice</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5564F</td>
<td>Primary Care of Families I</td>
<td>5</td>
</tr>
<tr>
<td>NURSE 5566F</td>
<td>Primary Care of Families II</td>
<td>5</td>
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<tr>
<td>NURSE 5572</td>
<td>Advanced Nursing Practice: Synthesis Practicum</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>
Minor in Health Sciences

Student Learning Outcomes

Students graduating from this program will:

- Students will be able to apply knowledge from behavioral, business, and social aspects of health into inter-professional practice.
- Students will be able to create (plan, implement, and evaluate) evidence-based health programs relevant to targeted populations and desired health outcomes.
- Students will demonstrate professional conduct, and strong interpersonal skills in their chosen career path.
- Students will be able to identify the specific challenges, and opportunities of improving health outcomes and reducing health disparities in diverse and urban environments.

Students earning a Minor in Health Sciences must earn a minimum grade of "C-" in all Health Sciences courses. This means that a grade below a "C-" in a Health Sciences course will need to be repeated to earn a passing grade.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HLSC 101</td>
<td>Introduction to Health Sciences</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 300</td>
<td>Diversity in Health</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 410</td>
<td>Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 430</td>
<td>Health Program Management</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 440</td>
<td>Policy and Ethics in Health</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 470</td>
<td>Technology, Marketing and Media in Health</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Plus one of the following three courses:</td>
<td></td>
</tr>
<tr>
<td>HLSC 450</td>
<td>Urban Health</td>
<td></td>
</tr>
<tr>
<td>HLSC 460</td>
<td>Global Health</td>
<td></td>
</tr>
<tr>
<td>HLSC 480</td>
<td>Leadership and Management in Health Professions</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 18
Minor in Public Health

Student Learning Outcomes

Students graduating from this program will:

• Apply knowledge of the science of public health into inter-professional practice.
• Create (plan, implement and evaluate) evidence-based public health programs relevant to the needs of the community.
• Demonstrate professional conduct, strong inter-professional skills, and knowledge of the roles and scope of practice of public health providers in accordance with the Council on Linkages Competencies initial level of competencies for public health.
• Identify the specific challenges and opportunities in a population based approach to improving the health of the public.

Students earning a Minor in Public Health must earn a minimum grade of "C-" in all Health Sciences courses. This means that a grade below a "C-" in a Health Sciences course will need to be repeated to earn a passing grade.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLSC 345</td>
<td>Quantitative Analysis in the Health Sciences</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 410</td>
<td>Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 440</td>
<td>Policy and Ethics in Health</td>
<td>3</td>
</tr>
<tr>
<td>PBHL 158</td>
<td>Public Health Principles</td>
<td>3</td>
</tr>
<tr>
<td>PBHL 358</td>
<td>Environmental Public Health</td>
<td>3</td>
</tr>
<tr>
<td>PBHL 445</td>
<td>Core Competencies in Health Education</td>
<td>3</td>
</tr>
<tr>
<td>PBHL 458</td>
<td>Communicable Disease Investigation</td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
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<td>21</td>
</tr>
</tbody>
</table>
Organizations

Student Nurses Association (SNA)
Membership in the Student Nurses Association (SNA) is automatic for all students admitted to and enrolled in the School of Nursing and Health Studies nursing degree programs. Students admitted into pre-nursing are encouraged to attend all meetings. Officers and representatives to the school's standing committees are elected annually. Council meetings and special events are held periodically throughout the academic year.

Sigma Theta Tau International, Lambda Phi Chapter
This international nursing honor organization is designed to recognize and encourage superior scholarship and leadership achievements in nursing. Students are eligible for consideration as junior and senior undergraduate students and as continuing graduate students. Membership, based on integrity and scholarship, is by invitation only. The induction of new members is held each spring.

Nursing Alumni Association
All students at the School of Nursing and Health Studies qualify for membership in the Nursing Alumni Association. Objectives of the alumni association are to provide mentoring to the student body and garner support for the school. Meetings are held periodically and officers are elected each spring by the Nursing Alumni Board.

BHS Society
The BHS Society is a student organization centered around the health sciences field of study. The goals of this organization are to promote philanthropy within the community, advocate health education, and cultivate leadership among members.
Ph.D. in Nursing

Student Learning Outcomes

Students graduating from this program will:

• Develop the science of nursing through rigorous, original research
• Steward the discipline through dissemination of scholarly work
• Educate the next generation of nurses and add to the global community of scholars.

Program Requirements

BSN-PhD/Pre-requisite Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURSE 5527</td>
<td>Cultural Diversity &amp; Values</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5528</td>
<td>Healthcare Policy &amp; Advocacy</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5550</td>
<td>Theoretical Foundations in Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5555</td>
<td>Nursing Research</td>
<td>3</td>
</tr>
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</table>

PhD Core Coursework

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>NURSE 5603</td>
<td>Research Institute I</td>
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</tr>
<tr>
<td>NURSE 5604</td>
<td>Research Institute II</td>
<td>2</td>
</tr>
<tr>
<td>NURSE 5608</td>
<td>Theory Development I</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5610</td>
<td>Theory Development in Nursing II</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5612</td>
<td>Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5622</td>
<td>Statistics II</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5631</td>
<td>State of the Science</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5668</td>
<td>Quantitative Research</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5670</td>
<td>Qualitative Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 5666</td>
<td>Designing Nursing Research</td>
<td>3</td>
</tr>
<tr>
<td>MEDB 5561</td>
<td>Responsible Conduct of Research</td>
<td>3</td>
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Collateral Coursework in Research Project Area:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>NURSE 5662</td>
<td>Psychometrics</td>
<td></td>
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<tr>
<td>NURSE 5664</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NURSE 5699</td>
<td>Dissertation Research</td>
<td></td>
</tr>
</tbody>
</table>
Pharmacy Home Page

Health Sciences Building (http://www.umkc.edu/virtualtour/hsb.asp)
Hospital Hill Campus
2464 Charlotte Street
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Fax: (816) 235-5190
(816) 235-1613 (Student Affairs)
Fax: (816) 235-5562 (Student Affairs)
pharmacy@umkc.edu
pharmacy.umkc.edu (http://pharmacy.umkc.edu)

Mailing Address
University of Missouri-Kansas City
School of Pharmacy
2464 Charlotte Street
Kansas City, MO 64108

Dean:
Russell B. Melchert

Associate Dean for Academic Affairs:
Maqual Graham

Associate Dean for Student Affairs:
Patricia A. Marken

Associate Dean for UMKC School of Pharmacy at MU:
Roger W. Sommi

Associate Dean for UMKC School of Pharmacy at MSU:
Paul O. Gubbins

History
Originally organized in 1885 as the Pharmaceutical Department of the University of Kansas City, the school was reorganized and reincorporated in 1898 as the Kansas City College of Pharmacy and Natural Science. In 1943, this forerunner of the present school joined the University of Kansas City as its third professional school.

When the University of Kansas City was incorporated into the University of Missouri System in 1963, the School of Pharmacy became the only state-supported pharmacy school in Missouri. In October 2010, the school commemorated 125 years of excellence in pharmaceutical education, research and service.

The School of Pharmacy is a member of the American Association of Colleges of Pharmacy (AACP). The doctor of pharmacy program is accredited by the Accreditation Council for Pharmacy Education (ACPE). Information about ACPE can be found at https://www.acpe-accredit.org/.

Degrees Offered
The School of Pharmacy offers the advanced professional degree of doctor of pharmacy. In addition, the School of Pharmacy participates in the School of Graduate Studies Interdisciplinary Ph.D. program with emphasis areas in pharmaceutical sciences and pharmacology and toxicology.

The UMKC School of Pharmacy currently has three Pharm.D. program sites: the UMKC campus site (Kansas City), the UMKC School of Pharmacy at the University of Missouri (Columbia) site, and the UMKC School of Pharmacy at Missouri State University (Springfield). The Pharm.D. program is a single program with multiple locations. All students at each site are enrolled through UMKC and graduate from UMKC. The required curriculum is the same for all students enrolled in the UMKC Pharm.D. program. Students located at distant sites are enrolled in the same required classes as students on the Kansas City campus. The same program policies and procedures apply to all students in the Pharm.D. program, regardless of program site.

Students interested in or that are currently pursuing Interdisciplinary Ph.D. programs of study should consult the School of Graduate Studies section of this catalog for degree requirements and other academic regulations applicable to the degree program.

Advising Systems
Student Support - Academic and Faculty Advising
Upon entry into the doctor of pharmacy program, each student is assigned a faculty advisor who serves as a mentor throughout the program. If students are experiencing difficulties, whether academic or personal, or if seeking more in-depth information about the curriculum or career paths,
they should seek counsel from their faculty advisor. It is important that students keep in contact with their faculty advisor throughout the program as they will monitor their progress and success.

Academic advisors in the Pharmacy Office of Student Affairs also work closely with early assurance, pre-pharmacy and current pharmacy students to provide assistance during the application and admission process, ensuring proper admission requirements and matriculation procedures are met. After entry, academic advisors assist students through subsequent enrollment and progression requirements and through final graduation completion. Academic advisors act as liaisons to various campus services and departments of the campus community and can link students with resources to address any academic or personal issues. Professional staff in the Office of Student Affairs also serve as advisors to individual classes and to the Pre-pharmacy Society in addition to assisting pharmacy student organization and class officers.

Both the academic and faculty advisors are familiar with sources of assistance and will help students seek the best solutions to their issues and concerns. Building a strong relationship with both advisors is strongly encouraged. Students that encounter academic difficulty during the program should meet with their advisors for guidance and for help in smooth transitions.

The School of Pharmacy offers a variety of services to assist students in support of the academic experience. For more information visit: http://pharmacy.umkc.edu/student-affairs/ and http://pharmacy.umkc.edu/pharm-d/advising/#main-content.

Libraries
The University Libraries provide the full spectrum of information services to support study and research in pharmacy. For additional information, consult the University Libraries section of this catalog.

Student Affairs
The School of Pharmacy offers a variety of services to assist students in support of their academic experience. For more information: http://pharmacy.umkc.edu/student-affairs/ and http://pharmacy.umkc.edu/pharm-d/advising/#main-content

Student services, which are available not only through the School of Pharmacy but throughout the University, are outlined in the Division of Student Affairs section of this catalog.

Student Involvement
Student Government
The student body annually elects an Executive Council for student pharmacists. The name of this primary council is Pharmacy Student Council (PSC). This body supports individual pharmacy students, student organizations, and the student body at the Kansas City, Columbia, and Springfield locations. The PSC is dedicated to representing the views, ideas, and concerns of the student body. This council consists of a president, administrative vice president, executive vice president, student government association senators, student activity fee committee representative and student council liaisons from each pharmacy campus location.

The Script
The Script, a pharmacy student-administered newsletter, is published several times each semester. Its purpose is to inform the student body, as well as the faculty and staff of student activities and achievements, announce available opportunities and report on developments affecting student life. Articles and calendar items are welcomed from any pharmacy student, student organization, faculty or staff member.

Student Organizations
The UMKC School of Pharmacy hosts a number of very active pharmacy student organizations. The following organizations are recognized by the UMKC Office of Student Involvement. UMKC students routinely win local, regional and national awards for their outstanding community service activities, leadership efforts, and commitment to patient care. General descriptions of each organization can be found under the Pharmacy Student Organizations section of the Pharmacy School website at: http://pharmacy.umkc.edu/pharm-d/student-organizations.

- Academy of Managed Care Pharmacy (AMCP)
- American Association of Pharmaceutical Scientists (AAPS)
- American Pharmacists Association Academy of Student Pharmacists (APhA-ASP)
- College of Psychiatric and Neurologic Pharmacists (CPNP)
- Kappa Epsilon (KE)
- Kappa Psi (KY)
- National Community Pharmacists Association (NCPA)
- Pharmaceutical Sciences Graduate Student Association (PSGSA)
- Pharmacy Student Council (PSC)
- Phi Lambda Sigma Leadership Society (PLS)
- Pre-Pharmacy Society
- Public Health Organization (PHO)
State Licensure Requirements

Students planning to practice the profession of pharmacy are required to satisfy the licensure requirements of the state in which they intend to practice. Licensure requirements vary, therefore, information concerning these requirements should be obtained by contacting the board of pharmacy of the state concerned.

Students accepted and enrolled in the doctor of pharmacy curriculum are required to obtain a valid Intern Pharmacist License issued by the Missouri Board of Pharmacy in order to fully participate in and continue through the curriculum. In addition, enrolled students must also obtain intern pharmacist professional liability insurance and keep insurance current through the duration of the program. The Missouri Intern Pharmacist License and professional liability insurance must remain current and valid through the last Advanced Pharmacy Practice Experience. Successful completion of all portions of the curriculum, both credit and non-credit requirements, are necessary for a student to meet graduation requirements and accrue sufficient internship hours toward pharmacist licensure eligibility.

All UMKC Pharm.D. students must read and adhere to the UMKC School of Pharmacy Student Intern Pharmacist License and Intern Liability Policy (http://pharmacy.umkc.edu/pharm-d/internship-and-licensure-information) as posted on the School of Pharmacy website.

The state of Missouri requires that an applicant for pharmacist licensure be 21 years of age, a graduate of an ACPE accredited school of pharmacy approved by the state’s board of pharmacy and have on file with the board proof of obtaining a minimum number of internship hours in a retail/community or hospital pharmacy practice setting under the supervision of a registered pharmacist/preceptor. Refer to the Missouri Board of Pharmacy and the National Association of Boards of Pharmacy websites for the most up-to-date information as requirements can change at any time.

Career Applications

Doctor of Pharmacy Careers

A number of graduates choose to practice in community and hospital pharmacy practice settings, but a wide variety of career possibilities in the pharmacy profession are available. Pharmacists have a great spectrum of practice environments to choose from in which their professional skills can be applied. Career information can be found through any of the national pharmacy professional associations. For information about these opportunities, see http://pharmacy.umkc.edu/pharm-d/faqs/

The doctor of pharmacy program also provides an appropriate academic base for students wishing to enter graduate study in the pharmaceutical sciences, pharmacology, toxicology, chemistry, biology, business, and/or public health. Others have gone on to pursue degrees in medicine, dentistry, or law.

Postgraduate training in the form of a residency and optional fellowship is recommended for all doctor of pharmacy graduates seeking advanced career opportunities in industry or academia.

- Academic Regulations and Requirements
- Doctor of Pharmacy (p. 1771)
- Pharmacy (PHARM 7000) Courses (p. 2183)
- Doctor of Philosophy
  - Interdisciplinary Ph.D. in Pharmaceutical Sciences and Pharmacology (p. 1777) and Toxicology
- Graduate Pharmacy (PHARM 5000) Courses (p. 2183)

Faculty

Mostafa Z. Badr23 professor emeritus of pharmacology and toxicology; B.S., M.S. (Cairo University, Egypt); Ph.D. (University of Louisville).

Kylie Barnes; Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=barnes); clinical assistant professor of pharmacy practice and administration; PharmD (St. Louis College of Pharmacy).

Hari Bhat23 Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=barnes); professor of pharmacology and toxicology; B.S., M.S. (University of Kashmir, India); Ph.D. (University of Texas Medical Branch-Galveston).

Sarah Billings Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=Billings); clinical assistant professor of pharmacy practice and administration; PharmD. (St. Louis College of Pharmacy).

Wayne M. Brown; associate professor emeritus of pharmacy practice and administration; B.S. (Medical College of South Carolina); M.S., Ph.D. (University of Mississippi).
Angela Brownfield Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=brownfield); clinical assistant professor of pharmacy practice and administration and assistant director, experiential programs; Pharm.D. (St. Louis College of Pharmacy).

Patrick J. Bryant Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=bryant); clinical professor of pharmacy practice and administration and director, UMKC Drug Information Center; Pharm.D. (University of Nebraska Medical Center).

Andrew S. Bzowyckyi Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=bzowyckyi); clinical associate professor of pharmacy practice and administration; B.S., Pharm.D. (University of Connecticut).

Kun Cheng²,³ Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=cheng); professor of pharmaceutical science; B.S., M.S. (China Pharmaceutical University, China); M.S. (National University of Singapore, Singapore); Ph.D. (University of Tennessee).

Lisa Cillessen Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=barnes); clinical assistant professor of pharmacy practice and administration; Pharm.D. (Ohio State University).

Kelly Cochran Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=cochran); clinical associate professor of pharmacy practice and administration; Pharm.D. (Butler University).

Sarah R. Cox Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=cox); clinical assistant professor of pharmacy practice and administration; Pharm.D. (Butler University).

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Simon H. Friedman²,³ Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=friedman); professor of pharmaceutical science; B.S. (Massachusetts Institute of Technology); Ph.D. (University of California, San Francisco).

Maqual Graham Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=graham); associate dean academic affairs, school of pharmacy, and professor of pharmacy practice and administration; Pharm.D. (University of Missouri-Kansas City).

Paul Gubbins Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=gubbins); associate dean, school of pharmacy, professor of pharmacy practice and administration; PharmD (University of Illinois at Chicago College of Pharmacy).

William G. Gutheil²,³ Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=gutheil); professor of pharmaceutical science; B.S. (California Polytechnic State University); Ph.D. (University of Southern California).

Kendall Guthrie Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=barnes); clinical assistant professor of pharmacy practice and administration; Pharm.D. (University of Missouri-Kansas City).

Jeremy P. Hampton Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=hampton); clinical associate professor of pharmacy practice and administration; B.S. (Rockhurst University); Pharm.D. (University of Missouri-Kansas City).

Karen L. Hardinger Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=hardinger); clinical professor of pharmacy practice and administration and director, assessment; Pharm.D. (University of Kansas).

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Jamie Koerner Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=barnes); clinical assistant professor of pharmacy practice and administration; Pharm.D. (University of Missouri-Kansas City).

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Chi H. Lee 2,3 Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=lee); professor of pharmaceutical science; B.S. (Seoul National University, South Korea); M.S. (University of Washington); Ph.D. (Rutgers University).

Cameron C. Lindsey Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=lindsey); professor of pharmacy practice and administration and director, co-curriculum; Pharm.D. (University of Missouri-Kansas City).

Yifei Liu Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=liu); associate professor of pharmacy practice and administration; B.S. (West China University of Medical Sciences, China); M.S., Ph.D. (University of Iowa).

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Patricia A. Marken Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=marken); associate dean student affairs, school of pharmacy, and professor of pharmacy practice and administration; B.S. (Dalhousie University, Canada); Pharm.D. (Medical University of South Carolina).

Diane McClaskey Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=mcclaskey); clinical assistant professor of pharmacy practice and administration and assistant director, experiential programs; B.S. (Drake University College of Pharmacy & Allied Health Sciences).

Cydney McQueen Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=mcqueen); clinical associate professor of pharmacy practice and administration; Pharm.D. (University of Missouri-Kansas City).

Tatum Mead Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=mead); clinical associate professor of pharmacy practice and administration; Pharm.D. (University of Iowa); B.A. (University of Northern Iowa).

Russell B. Melchert Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=melchert); dean, school of pharmacy, and professor of pharmacology and toxicology; B.S., Ph.D. (The University of Oklahoma Health Sciences Center).

Srikumaran K. Melethil Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=melethil); professor emeritus of pharmaceutical science; B.Pharm., M.Pharm. (Andhra University, India); Ph.D. (State University of New York at Buffalo).

Ashim K. Mitra 2,3 Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=mitra); vice provost for interdisciplinary research, co-director of Vision Research Center, curators professor of pharmaceutical science and chair, Division of Pharmaceutical Science; B.S., M.S. (Jadavpur University, India); M.S., Ph.D. (University of Kansas).

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Leigh Anne Nelson Contact Information (https://cf1.umkc.edu/intapps/lookup/?LastName=nelson); associate professor of pharmacy practice and administration; B.S., Pharm.D. (University of Missouri-Kansas City).

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1 Associate or Adjunct Graduate Faculty
2 Members of UMKC Graduate Faculty
3 Members of UMKC Doctoral Faculty
4 Located at UM-St. Louis campus

Courses

PHARM 5507 Basic Pharmacology Credits: 3
Basic pharmacological concepts and important classes of pharmacologic agents.
Prerequisites: LS-ANATO 118, LS-BIOC 365, LS-PHYS 117.

PHARM 5509 Toxicology Credits: 3
Principles of general toxicology and toxicology of industrial and household chemicals, agricultural agents, social poisons, and selected therapeutic agents. Prerequisites: Successful completion of prior professional program coursework or course coordinator’s permission.
Cross Listings: PHARM 7463.

PHARM 5519 Pharmacology I Credits: 2
Basic pharmacological principles of drug absorption, distribution, metabolism and elimination; concept of drug-receptor interactions; dose-response relationships and mechanism of action; and signaling mechanisms.
Prerequisites: Successful completion of prior professional program coursework or course coordinator’s permission.
Cross Listings: PHARM 7361.
PHARM 5520 Pharmacology II Credits: 4
Principles of and advances in chemotherapy, biology, mechanism of action; clinical applications and adverse effects of various drug groups. **Prerequisites:** Successful completion of prior professional program coursework or course coordinator's permission.

**Cross Listings:** PHARM 7362.

PHARM 5521 Advanced Organic Medicinal Chemistry Credits: 3
The focus of this course is an examination of the physical-chemical basis of drug action, particularly focusing on the formation of drug-target complexes. This includes the mathematical description of this binding, as well as an advanced description of the physical forces responsible for binding. In addition we will examine the energetic and entropic factors that contribute to complex stability, examining real world examples when possible.

**Prerequisites:** Successful completion of prior professional program coursework or course coordinator's permission.

PHARM 5527 Analytical Methods Credits: 3
A detailed study of the methods used to detect, identify, and quantitate drugs, small molecules, enzymes, proteins, and biological molecules. The statistical foundation, core concepts, and practical implementation of analytical methods are areas of emphasis. State-of-the-art instrumentation and recent technological developments are also presented, including biotechnology based methods such as proteomics methods and quantitative PCR.

**Cross Listings:** PHARM 7362.

PHARM 5530 Pharmacology III Credits: 4
Mechanism of action; therapeutic uses; and adverse effects of drugs affecting different organ systems. **Prerequisites:** Successful completion of prior professional program coursework or course coordinator's permission.

**Cross Listings:** PHARM 7363.

PHARM 5531 Physical Pharmacy Equilibria Credits: 3
Advanced principles of aqueous solutions, acid-base equilibria, solubility and complexation. Mathematical solutions and state-of-the-art research applications. **Prerequisites:** B.S. in pharmacy.

PHARM 5533 Advanced Pharmacokinetics and Biopharmaceutics Credits: 3
This course involves the study of the rates at which drug absorption, distribution, metabolism, and excretion occur in the body following medication administration. The student will be expected to kinetically model a given physiological process associated with the disposition of a drug in any tissue, write a series of equations, and then solve those equations to produce a final set of equations that can be used to predict the concentrations of drug in the biological matrix of interest. Knowledge of derivation of equations is expected, along with real-world application of resulting equations. Offered fall semester of odd-numbered years. **Prerequisites:** A grade of "B" of better in PHARM 7303 (An Introduction to Pharmacokinetics and Biopharmaceutics) and a grade of "B" or better in a course of the student's choosing in ordinary differential equations (ODE) offered by a mathematics department, e.g., MATH 345 at UMKC.

PHARM 5550 Stability of Pharmaceuticals Credits: 3
The course provides instruction in the processes responsible for instability of pharmaceuticals. Course content includes, but is not limited to, instability due to light, oxygen, and metal ions; the effect of temperature on the rate of drug decomposition; the effect of dielectric constant and ionic strength on degradation; and physical and chemical instability of newer polypeptide drugs. In addition, practical strategies to prevent instability of the active compound and excipients used in pharmaceutical formulations is provided. **Prerequisites:** MATH 210, PHARM 7202, PHARM 7203.

PHARM 5555 Religion, Culture and Health Credits: 3
This course addresses the impact of religious beliefs on the culture practices of contemporary society, and aims at examining the relationship between these beliefs, modern sciences and health.

PHARM 5560 Discussions in Pharmacology Credit: 1
Discussions in Pharmacology (also called Pharmacology Journal Club), is a graduate course. It is designed to provide graduate student the opportunity to read, interpret and present literature to fellow peers, post-docs and faculty. The Journal Club presentations promote active and lively discussion and exchange of ideas. The class is a mandatory requirement for all graduate students in the Division of Pharmacology Toxicology. **Prerequisites:** B.S. (or equivalent) in biology, chemistry, pharmacy or related biomedical sciences.

PHARM 5580A Seminar in Pharmaceutical Sciences Credit: 1
Enrollment and participation required of all graduate students in the School of Pharmacy during each semester of graduate study.

PHARM 5580C Seminar in Pharmacology/Toxicology Credit: 1
Enrollment and participation required of all graduate students in the School of Pharmacy during each semester of graduate study.

PHARM 5588 Techniques in Biotechnology Credits: 3
In this graduate course, the principle theories, techniques and strategies to conduct experiments using common biotechnology/molecular biology techniques will be discussed. The course material has been designed to provide up to date information on techniques in biotechnology. Knowledge on these basic biotechnology/molecular biology techniques will be useful in diverse fields like biochemistry and pharmaceutical sciences to work with nucleic acid and proteins. **Prerequisites:** B.S. (or equivalent) in biology, chemistry, pharmacy or related discipline.
PHARM 5590A Special Topics Pharmacy Credits: 1-3

PHARM 5599A Research And Thesis Pharmacy Credits: 1-9

PHARM 5599C Research And Thesis Pharmacology Credits: 1-9

PHARM 5615 Methods In Pharmacology And Toxicology Credits: 3

Exposure to some of the techniques employed in research in pharmacology and toxicology. There are eight one-hour introductory lectures for the course, followed by six hours of laboratory per week.

PHARM 5630 Cytochrome P450: Drug Metabolism, Bioavailability, Interactions and Toxicity Credits: 3

This course is designed to provide students up-to-date scientific facts on drug metabolism, bioavailability interactions, and toxicity (DMBIT) in perspective of cytochrome P450 (CYP) and the factors that affect DMBIT. The course will also include prospects of CYP applications for various purposes in reference to drug metabolism. The course will include lectures, lab experience, and student seminar/report.

**Prerequisites:** B.S. (or equivalent) in chemistry, biology, pharmacy, or related subject.

PHARM 5631 Pharmaceutical Formulations I Credits: 3

Advanced theory and practice of Pharmaceutical formulations, including classical and current research. This course will introduce the principles of biomaterial based drug delivery systems and unify knowledge from the fields of biology, materials science, and pharmaceuticals.

**Prerequisites:** B.S. in Pharmacy.

PHARM 5632 Novel Drug Delivery Systems Credits: 3

The course offers up-to-date information about drug transport mechanisms and drug absorption processes across various absorptive membranes i.e., buccal, nasal, dermal, corneal, pulmonary, and oral mucosae. The course material has been designed to provide current ideas and thinking about gene delivery, drug targeting to tumor cells and lipid and carrier mediated drug delivery. It provides unique information about cell culture models as a predictor of drug delivery as well as physical chemistry of surfaces in various microparticulates and lipid emulsion systems.

PHARM 5633 Receptor Pharmacology and Signal Transduction Credits: 3

Molecular characterization of drug receptors involving quantitative description of functional studies with agonists and antagonists and binding of ligands to receptors; the molecular structure of receptors and the signaling systems that couple receptors to their pharmacologic functions.

**Prerequisites:** LS-BIOC 370, PHARM 5519, PHARM 5520, PHARM 5530.

PHARM 5634 Protein and Nucleic Acid Drug Delivery Credits: 3

In the graduate course, the principle theories, techniques and strategies in developing protein and nucleic acid drugs will be discussed. The course material has been designed to provide up to date information in protein and nuclear acid drug delivery. It offers unique information on how to combine knowledge of chemistry, molecular biology and pharmaceutical sciences to achieve successful therapeutic application of protein and nucleic acid.

**Prerequisites:** B.S. in bioengineering, biology, chemistry, pharmacy, or pharmacy.

PHARM 5640 Biochemical and Molecular Toxicology Credits: 3

This course will provide students with a comprehensive mechanistic understanding of various molecular events that lead to and/or are associated with chemically/environmentally induced degenerative of proliferative diseases. The course will include lectures student presentations of recent advances in biochemical and molecular toxicology and student report on a topic of interest as it pertains to the subject being taught. The title of the report has to be approved by the course coordinator.

**Prerequisites:** B.S. (or equivalent) in biochemistry, biology, chemistry, or molecular biology.

PHARM 5645 Cancer Biotechnology I Credits: 3

This course is designed to provide a basic understanding of tumor progression, molecular events and signaling mechanisms underlying tumor formation. Epidemiological approaches, etiology, and current methods of detection and diagnosis of cancer will be discussed. Current pharmacological management strategies of cancer and future therapeutic interventions will also be reviewed.

**Prerequisites:** BIOLOGY 202 (or equivalent).

PHARM 5690BB Special Topics Toxicology Credits: 1-3

PHARM 5690C Special Topics Pharmacology Credits: 1-3

PHARM 5690PCII Special Topics Pharmacy Credits: 1-3

Special Topics Pharmacy

PHARM 5699 Research and Dissertation Credits: 1-16

Available for Doctorate program with the following emphasis areas: (A) Pharmacy, (B) Pharmaceutical Chemistry, (C) Pharmacology, (AA) Pharmacy Administration, and (BB) Toxicology.
These courses include presentations and discussions on the profession of pharmacy including: the roles and responsibilities of the pharmacist, educational requirements to obtain the degree, career opportunities, student life, legal and ethical issues, and study skills development.

This course introduces students to the profession of pharmacy by communicating drug names, defining drug-related problems and discussing professional responsibilities and roles of a pharmacist. Students will examine and reflect on personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could enhance or limit personal and professional growth following completion of various self-assessments. This course also assists students to assume responsibility for their own learning. One 2-hour class session is held per week.

These courses include presentations and discussions on the profession of pharmacy including: the roles and responsibilities of the pharmacist, educational requirements to obtain the degree, career opportunities, student life, legal and ethical issues, and study skills development.

This course provides instruction in performing and applying the necessary calculations involved in pharmacy practice and the dispensing, manufacturing and preparation of dosage forms. Topics covered include but are not limited to: fundamentals of pharmaceutical calculations, exponents, ratios, percentages, proportions and fractions); International System of Units; pharmaceutical measurements; interpretations of medication orders and prescriptions; density, specific gravity and specific volume; patient specific parameters involved in dosing (surface area, weight and age); isotonicity and buffer solutions; milliequivalents, millimoles and milliosmoles; dilution, concentration and allegation; and reduction/enlargement of formulas. Students must have an understanding of mathematical principles to include algebra and calculus.

This course will examine the federal laws that pertain to the practice of pharmacy.

The School of Pharmacy offers Grand Rounds seminars for the student body regarding timely and important topics and issues facing the profession of the School.

Physicochemical properties of drug systems with consideration of incompatibilities and stabilization of pharmaceutical dosage forms, and physicochemical properties affecting drug action, degradation and bioavailability.

Discussion of pharmaceutical processes, equipment and material used in drug delivery systems and the preparation and evaluation of various drug delivery systems and formulations.

In this lab course, students will perform hands-on pharmaceutical processes, use manufacturing equipment, and prepare formulations in which selected dosage forms are manufactured and evaluated. This is a professional elective option for Pharm.D. students.

The course will serve as an introduction to the endogenous cannabinoid system and explore the clinical potential and the clinical, social, and legal problems associated with medicinal use of cannabis and cannabinoid medicines.

U.S. Health Care System and Marketing is a required course for the Doctor of Pharmacy degree program at The University of Missouri-Kansas City School of Pharmacy. It consists of two modules: U.S. Health Care System and Medication Safety (Module I), and Health Care Marketing (Module 2). The learning objectives of the course are to (1) characterize components of the U.S. health care system at the macro level, including public health programs; (2) discuss medication errors and management within the U.S. health care system; (3) manage patients’ health care needs using technological resources to optimize safety and efficacy of medication use systems; and (4) analyze the marketing process for health care projects and services, including business ethics in marketing activities. This course provides the context and builds the knowledge base for future required courses in economic, social, and administrative sciences.
PHARM 7244 Introduction to Drugs of Abuse Credits: 2
As a health professional in training, it is important to know the mental and behavioral effects of abusing both prescription and illicit substances. This knowledge will help the health professional to more understanding of their patients who may be suffering with a substance abuse problem. Introduction to Drugs of Abuse will focus on both the physical and psychological effects of substances such as hallucinogens, amphetamines, alcohol, and nicotine among others. The course will also be discussing important topics such as behavioral modification, the controversies of treatment, and the role of the pharmacist in the treatment of substance abuse. A substantial focus will also be placed on patient experiences and the psycho-social aspects of substance abuse.

**Prerequisites:** LS-ANATO 118, LS-ANATO 118L.

**Co-requisites:** LS-PHYS 399, LS-PHYS 400.

PHARM 7245 Top Drugs I Credit: 1
This 1.0 hour course is designed as an introduction to up to 300 of the most commonly prescribed medications. This course will provide students with the opportunity to learn basic drug knowledge including brand (trade) and generic names, narcotic class, therapeutic class, common dosage forms, and FDA approved indications, dosing, pharmacology/pharmacokinetics, drug interactions, contraindications/precautions, and adverse effects.

**Prerequisites:** Successful completion of the P1 year in the Pharm.D. Program

PHARM 7266 Medical & Medication Error Evaluation & Management Credit: 1
A course designed to discuss the current body of evidence with respect to medical quality, medication errors, and strategies used to improve quality minimize error rates. At the completion of the course, the student should be able to (1) review and synthesize evidence within the literature; (2) describe the policy framework designed to improve health care quality; (3) describe characteristics and factors that enable encourage providers to improve the quality of care; (4) describe common causes of medication errors; (5) differentiate strategies to prevent errors; (6) correlate medication errors and specific disease states.

PHARM 7275 The Pharmacists’ Role in Global Health Credits: 2
This course is designed to introduce students to the global context of public health. “Global Health” is defined as the application of principles of public health to health issues and challenges that transcend geopolitical boundaries, and to the complex array of global and local forces that affect these health issues.

PHARM 7277 Zoonotic Illnesses Credit: 1
A zoonotic illness is a disease that can be transmitted from animals to humans – over 60% of all human infections are zoonotic. The purpose of this course is to increase student knowledge relative to infectious diseases caused by zoonotic transmission/pathogens. Topic discussion will include background evolution of the disease, diagnostic considerations, management, monitoring and reporting of the infectious diseases to the local health department. This course will serve to reinforce the principles of infectious diseases pharmacotherapy and further expose students to diseases encountered in rural Missouri (i.e. tick bites, farm animals). Classes are didactic in nature.

**Prerequisites:** Microbiology course from any accredited college or university.

PHARM 7279 Introductory Pharmacy Practice Experience I Credits: 0.5
This Introductory Pharmacy Practice Experience (IPPE) provides students the opportunity to develop a health profile for a patient utilizing knowledge and skills gained in the didactic curriculum. This experience involves small group instruction and guided reflection, direct patient contact, opportunities to employ and develop essential practice skills and techniques, and assessment by active participation, guided reflection, and portfolio review. This IPPE compliments didactic instruction and allows students to apply knowledge to patient care and demonstrate readiness for the next level of curricular pharmacy practice experiences.

PHARM 7280 Introductory Pharmacy Practice Experience II Credits: 0.5
This Introductory Pharmacy Practice Experience (IPPE) provides students the opportunity to develop a health profile for a patient utilizing knowledge and skills gained in the didactic curriculum. This experience involves small group instruction and guided reflection, direct patient contact, opportunities to employ and develop essential practice skills and techniques, and assessment by active participation, guided reflection, and portfolio review. This IPPE compliments didactic instruction and allows students to apply knowledge to patient care and demonstrate readiness for the next level of curricular pharmacy practice experiences.

**Prerequisites:** PHARM 7279.

PHARM 7289 Introduction to Complementary and Alternative Medicine Credit: 1
An elective course designed to introduce a variety of the most common complementary and alternative medicine (CAM) modalities. Each modality will be defined and explained and any clinical evidence for or against will be discussed. An important emphasis will be on how patient use of these therapies may affect their needs for medication therapy management and counseling. For example, patients who see a naturopathic physician may be more likely to use herbal therapies that may interact with their prescription medications.

**Prerequisites:** Good standing in the P2 Doctor of Pharmacy year; P1 students may enroll with instructor approval.
PHARM 7303 Pharmacokinetics and Biopharmaceutics Credits: 3
This course involves the study of the rates at which drug absorption, distribution, metabolism, and excretion occur in the body following medication administration. The student will be taught to calculate pharmacokinetic parameters, and then utilize those values to optimize pharmacotherapy in his/her patient. So as to promote inter-professional healthcare dialogue, this course will demonstrate how to make informed recommendations associated with both drug administration and monitoring to medical and nursing healthcare providers. Recommendations include, but are not limited to, suggesting changes in the dose, dosing frequency, infusion rate, steady-state plasma drug concentrations, ‘peak’ and ‘trough’ plasma drug concentrations, drug/drug interactions, drug/food interactions, and dosing adjustment in the context of diminished kidney or liver function.

PHARM 7307 Advanced Pathophysiology Credits: 4
Advanced pathophysiology is the study of the alterations of normal physiological functioning in cellular, tissue, organ, and organ systems. These alterations form the basis for understanding a variety of pathophysiological conditions and the manifestations and impact of abnormal physiological functioning on patients across the life span. Advanced pathophysiology deals with both generalized disease processes and major organ system dysfunction. Students will have the opportunity to identify clinical signs and symptoms for various disease states, associate the pathophysiologic abnormality responsible for the sign or symptom, and understand how drug therapy targets disease state management and treatment.

**Prerequisites:** LS-BIOC 370, LS-PHYS 400.

Co-requisites: PHARM 7361.

PHARM 7310 Academic Service Learning I Credit: 1
Academic Service Learning is a professional elective course where students are assigned to either an area clinic in Kansas City or the MedZou program in Columbia. A minimum of 30 contact hours must be completed during the assigned semester. Health education will be the primary focus.

PHARM 7311 Pharmacy in the 21st Century Technology Credits: 2
This course allows students to develop the skills to evaluate and use Health Care Information Technology (HCIT) in contemporary pharmacy practice. The elective course is offered in the winter semester only.

**Prerequisites:** Third year status or higher in the Pharm. D. program.

PHARM 7313 Career Planning Credit: 1
This course enables students to engage in the study of career opportunities in the areas of industry, hospital/clinic practice, retail and managed care settings. Pharmacy opportunities are explored through lecture and discussion, guest speakers in the various areas and student exploration with business contacts and research. Topics include understanding career opportunities, achieving one's professional goals, compensation packages and negotiations, and designing a path to accomplish career objectives.

PHARM 7316 Introduction to Pharmaceutical Policy Analysis Credits: 2
This course addresses multiple key influential pharmaceutical policy areas shaping pharmacy practice, and will teach critical thinking skills required to measure both federal and state level policy impact in patient safety and access to medications.

**Prerequisites:** PHARM 7151, PHARM 7325.

PHARM 7317 Drug Induced Diseases Credits: 2
Drug-induced disease is an unintended effect if a drug that results in mortality or morbidity with symptoms sufficient to prompt a patient to seek medical attention and/or require hospitalization. This course will aid students in the identification, management, and prevention of drug-induced diseases.

**Prerequisites:** PHARM 5519, PHARM 7307.

PHARM 7318 Introduction to Critical Care Medicine Credits: 2
Critical Care is a multidisciplinary healthcare specialty that cares for patients with acute, life-threatening illness or injury. The management of these patients requires advanced knowledge in various disease states, pathophysiological changes as a result of the illness or injury, as well as the pharmacologic agents used in their treatment. The course will serve as an introduction to Critical Care medicine and will allow students to gain exposure to all that encompasses caring for the critically ill. It will not only focus on specific disease states, but also delve into the negative outcomes associated with such illnesses and provide an introduction to both medical and pharmacologic management of them. The course is not meant to provide students with a comprehensive review but rather provide a glimpse into the specialty of Critical Care Medicine.

**Prerequisites:** Successful completion of all pharmacy didactic and experiential courses through semester four.

PHARM 7324 Medication Management in Transitions of Care Credit: 1
Transitions of care is an important aspect of patient care in all pharmacy practice settings. The pharmacist plays a crucial role in medication management during the transitions of care process. The purpose of this course is to increase student knowledge and skills relative to the pharmacist's role in transitions of care. Students will learn strategies to effectively develop and implement pharmacy-led transitions of care services in various healthcare settings.

**Prerequisites:** Pharm 7414, Pharm 7414L.
PHARM 7325 Patient Assessment and Professional Communication Credits: 2
In this course, students will continue developing necessary skills to provide patient-centered care. Students will be introduced to health informatics and an electronic medical record. Students will be taught the four components of a SOAP note, a method of documentation used by healthcare providers. Students will learn how to physically assess patients and document findings in SOAP format in a patient’s record. Students will also learn how to effectively communicate with other healthcare professionals and document the interactions.

Prerequisites: PHARM 7101, PHARM 7414.

Co-requisites: PHARM 7325L.

PHARM 7325L Applied Skills Lab: Patient Assessment and Professional Communication Credits: 0.5
This applied skills lab is associated with the Patient Assessment and Professional Communication course. Learning activities are designed to complement didactic instruction while allowing students to apply knowledge in a simulated environment. Students are expected to perform physical assessments on each other while under supervision and document patient information accurately and periodically within the electronic medical record system. Student achievement of core abilities will be assessed through an Objective Structured Clinical Examination. One 2-hour lab session is held every other week or weekly but no more than 10 sessions per semester.

Prerequisites: PHARM 7101, PHARM 7414.

Co-requisites: PHARM 7325.

PHARM 7326 Evidence Based Medicine Credits: 5
Pharmacists, if they are to assume the role of “medication expert,” must learn how to integrate existing drug information using rigorous problem-solving tools that deliver efficient and safe decision making that benefits patients, consumers and other healthcare providers. This course provides students with an evidenced-based, disciplined approach to evaluate literature from multiple sources in a critical manner in order to make complex healthcare-related patient/population recommendations and decisions. Application of key EBM concepts incorporates lectures, interactive labs, self-study tutorials, facilitated/online retrieval of activities and traditional assessments.

Prerequisites: PHARM 7325, PHARM 7405.

Co-requisites: PHARM 7420.

PHARM 7331L Applied Skills Lab: Aseptic Technique and Sterile Product Prep Credits: 0.5
This half credit hour course introduces students to the regulations and proper practice of sterile compounding and focuses on development and assessment of aseptic technique skills used in the preparation of parenteral admixtures and injections. The course uses in-class and prerecorded video instruction, small-group demonstration and instruction, instructor-guided practice, and assessment of skills. The knowledge and skills obtained in this course prepare students for the hospital-based Introductory Pharmacy Practice Experience (IPPE).

Prerequisites: Successful completion of prior professional program coursework and OSHA Bloodborne Pathogen Safety Training.

PHARM 7334 Pharmacy Based Immunization Delivery Credit: 1
Pharmacy-based Immunization Delivery is an interactive training program that teaches pharmacists and student pharmacists the skills necessary to become a primary source for vaccine information and administration. The program teaches the basics of immunology and focuses on practice implementation, administration technique (pk) and legal/regulatory issues.

PHARM 7339 Business Plan and Entrepreneurship in Community Pharmacy Credits: 2
Business Plan and Entrepreneurship in Community Pharmacy course is designed to provide an opportunity for students enrolled in the School of Pharmacy to further explore business plan development and entrepreneurship in the community pharmacy setting. Upon course completion, the student will be able to understand and complete the necessary components of a full business plan and proposal that involves innovation and creativity in pharmacy practice. Students are expected to participate in a team approach to delegate all aspects of the business plan, as well as participate in classroom activities and discussions of innovative practice. Prerequisites: PHARM 7101, PHARM 7151, PHARM 7233, PHARM 7414, PHARM 7414L, PHARM 7279, PHARM 7465.

PHARM 7341 Medicinal Chemistry I Credits: 3
This course is the study of medicinally active substances, both natural and synthetic, which describes their chemical properties, their mode of action, their structure-activity relationships and their metabolic rate. Starting with their origin, it is shown how drugs in a series are developed by chemical modification, quantitative structure activity relationships and receptor theory. The chemical properties of a drug are described and explained. The mode of action of the drug is explained on a biochemical basis whenever possible. Once a drug has had its medicinal effect, it is excreted or metabolized. Reasons for excretion or metabolism are explained.

Prerequisites: CHEM 322R.


PHARM 7344 Medicinal Chemistry II Credits: 3
This course is a continuation of PHARM 7341. This course will focus on major drug classes, both natural and synthetic, including their chemical properties, their mode of action, their structure-activity relationships and their metabolic fate. Structure-activity relationships and the influence of organic functional groups on physicochemical properties of drugs and their pharmacological activities will be emphasized. Drug metabolism will also be covered, with a focus on organic functional group transformations.

Prerequisites: PHARM 7341.
PHARM 7345 Top Drugs II Credit: 1
This 1.0 hour course is designed as an introduction to up to 300 of the most commonly prescribed medications. This course will provide students with the opportunity to learn basic drug knowledge including brand (trade) and generic names, narcotic class, therapeutic class, common dosage forms, and FDA approved indications, dosing, pharmacology/pharmacokinetics, drug interactions, contraindications/precautions, and adverse effects.

PHARM 7353 Investigative Toxicology Credits: 2
The science of investigative toxicology is an emerging science that plays a central role in forensic toxicology and pathology regarding conditions of and for exposure of many different kinds of environmental, biological, chemical, or physical agents. Investigative toxicology may include criminal or civil legal matters. The duties of an investigative toxicologist include the qualitative and quantitative analysis of drugs or poisons in biological systems and other physical evidence collected at the scene of the investigation. This also includes the interpretation of the exposure scene evidence and findings in regard to the physiologic and behavioral effect of those exposed to the detected/suspected chemical(s) at time of exposure. The complete investigation of the cause or causes of sudden or chronic chemical exposure and its potential aftermath is an important civic responsibility. The use of toxicologic information in investigation assessment requires careful field and laboratory analysis, evaluation of data.

PHARM 7361 Pharmacology I Credits: 2
Basic pharmacological principles of drug absorption, distribution, metabolism and elimination; concept of drug-receptor interactions; dose-response relationships and mechanism of action; and signaling mechanisms.
Prerequisites: Successful completion of prior professional program coursework or course coordinator's permission.

Cross Listings: PHARM 5519.

PHARM 7362 Pharmacology II Credits: 4
Principles of and advances in chemotherapy, biology, mechanism of action; clinical applications and adverse effects of various drug groups.
Prerequisites: Successful completion of prior professional program coursework or course coordinator's permission.

Cross Listings: PHARM 5520.

PHARM 7363 Pharmacology III Credits: 4
Mechanism of action, therapeutic uses; and adverse effects of drugs affecting different organ systems.
Prerequisites: Successful completion of prior professional program coursework or course coordinator's permission.

Cross Listings: PHARM 5530

PHARM 7364 Concepts of Epidemiology and Statistics In-Research Credits: 3
This course introduces students to study design, principles, concepts, and application of epidemiological and statistical methods in research. First part of the course will cover understanding the epidemiological principle, measuring the occurrence of disease, measures of disease association, and types of study designs, interpretation and evaluation of epidemiologic research. Second part will provide hands-on experience for students on developing skills to analyze research data using appropriate statistical methods by means of statistical software to calculate the measures of disease association. This course will help students to evaluate health care studies with respect to study design, statistical analysis, interpretation, and evidences of association. During this course students will develop an epidemiologic study proposal. Students will learn to analyze and interpret the output of these analyses using the Statistical Package for the Social Science (SPSS).
Prerequisites: STAT 436 (or equivalent).

PHARM 7366 Oncology and Hematology Pharmacotherapy Credits: 3
This course provides disease-oriented and pharmacy-oriented insight into the pathophysiology, diagnosis, and rational drug treatment of malignancy. The pharmacist’s role in selecting drug products, individualizing dosages, supportive care, and monitoring patients is emphasized, with additional emphasis on safety and handling.
Prerequisites: PHARM 7361, PHARM 7420.

PHARM 7377 Principles of Nutrition Support Credits: 2
Clinical nutrition, a multidisciplinary field, has become an important practice area for the hospital pharmacist. Its growth has been the result of an awareness of the high incidence of malnutrition among hospitalized patients and its effects on morbidity and mortality. Nutrition support is an important therapy provided to patients in the acute care, homecare and long term care settings. This course will introduce the student to the fundamentals of nutrition support and prepare him/her for future involvement in this important practice area.

PHARM 7378 Introduction to Community Pharmacy Practice Credits: 2
This course is a required Introductory Pharmacy Practice Experience (IPPE) in which students will spend two weeks during the summer after their third professional year providing patient-centered care in a community pharmacy practice setting. The experience will emphasize application of knowledge gained in didactic coursework at the student’s level in the curriculum. Activities focus on the delivery of care to patients rather than relying on a product-centered model of practice. The Introductory Pharmacy Practice Experiences seek to establish a solid practice foundation on which students will continually build as they progress through the Doctor of Pharmacy curriculum. Successful completion of of prior professional program coursework and submission of required Experiential Programs documentation.
PHARM 7379 Introduction to Health Systems Pharmacy Practice Credits: 2
This course is a required Introductory Pharmacy Practice Experience (IPPE) in which students will spend two weeks during the summer after their third year providing patient-centered care in a health systems pharmacy practice setting. The experience will emphasize application of knowledge gained in didactic coursework at the student's level in the curriculum. Activities focus on understanding the medication use system and delivering care to patients in a hospital setting. The Introductory Pharmacy Practice Experiences seek to establish a solid practice foundation on which students will continually build as they progress through the Doctor of Pharmacy curriculum. Successful completion of prior professional program coursework and submission of required Experiential Programs documentation.

PHARM 7389 Advances In Drug Therapy Credits: 2
Study of the advances in drug delivery and therapy; the concepts of advanced and novel drug delivery systems, modern drug analysis tools, role of efflux protein in drug kinetics, and transporter/receptor mediated drug delivery.
Prerequisites: Pharm 7303.

PHARM 7397 Home Health Care Credits: 2
Anything a patient does in the home concerning their healthcare is considered Home Health Care. All aspects of Home Health Care are covered in this class. Diabetic Ostomy products care, Durable Medical Equipment (Wheelchair, cane, crutches, etc.), home Renal Dialysis, Wound Care, Respiratory Therapy, IV accesses, Home Infusion Therapy, Hospice Care, and Enteral Nutrition are presented and discussed. Reimbursement issues are not discussed due to constantly changing regulations. This is a "hands-on" class with participation in, for example, ostomy fitting, crutches fitting, enteral nutrition taste testing, and a tour of a Home Infusion Pharmacy.
Prerequisites: PHARM 7362, PHARM 7405.
Co-requisites: PHARM 7420.

PHARM 7398 Comprehensive Diabetes Management Credits: 4
The purpose of the course is to provide the student with a multidisciplinary foundation in the principles of diabetes management. The student will develop his/her knowledge and ability to assess, manage and monitor patients with diabetes. The faculty are comprised of a multidisciplinary team of experts for the online lectures. The in-class discussion will be led by a faculty member who specializes in diabetes management.
Prerequisites: Pharm 7303.

PHARM 7399 Required Enrollment Credit: 1
Required enrollment for international students in pharmacy training sites.

PHARM 7405 Self-Care and Nonprescription Pharmacotherapy I Credits: 3
The Self-Care and Nonprescription Pharmacotherapy course integrates the fundamentals of pathophysiology and pharmacology to help develop the student's ability to provide patient-centered care. Upon course completion, students will be able to assess and provide pharmaceutical care for patients with illnesses commonly encountered in community pharmacy practice. Students are expected to identify medical and medication-related problems, recommend nonprescription drug therapy and monitor for safe and effective drug use. Students are also expected to provide accurate medication counseling. In general, two hours per week are devoted for traditional didactic teaching and learning and two hours for laboratory experiences.
Prerequisites: PHARM 7279, PHARM 7307, PHARM 7325, PHARM 7361, PHARM 7414.
Co-requisites: PHARM 7405L.

PHARM 7405L Applied Skills Lab: Self-Care and Nonprescription Pharmacotherapy I Credits: 0.5
Students enrolled in this applied pharmacotherapy lab will gain skills necessary to provide care for patients with illnesses commonly encountered in community practice. Learning activities are designed to complement didactic instruction while allowing students to apply knowledge in a simulated environment. Students will be afforded opportunities to provide patient-centered care utilizing the QuEST/SCHOLAR MAC process. Student achievement of core abilities will be assessed through an Objective Structured Clinical Examination.
Prerequisites: PHARM 7279, PHARM 7307, PHARM 7325, PHARM 7361, PHARM 7414.

Co-requisites: PHARM 7405.

PHARM 7406P IPPE: General Medicine I Credits: 2
This course is a required Introductory Pharmacy Practice Experience (IPPE) which provides a continuum of patient care activities throughout the third professional year. The students will spend one academic year (Fall and Spring Semesters) in a patient care setting. Emphasis of study will be on the care of patients with commonly seen illnesses. Students are expected to become involved in the provision of direct patient care and improving rational drug therapy in a practice environment.
Prerequisites: PHARM 7420, PHARM 7485P.

PHARM 7407P APPE Patient Care Selective Credits: 4
The student will spend one month actively participating in the delivery of direct patient care in an interprofessional practice setting where there are ongoing clinical pharmacy services. Students will take part in rounds, conferences, consultations and other activities as directed by the faculty preceptor. Faculty preceptors may add site-specific objectives as indicated.
Prerequisites: Successful completion of all pharmacy non-credit requirements and all didactic and experiential pharmacy coursework through semester six.
PHARM 7409P APPE Health Systems Credits: 4
The student will spend one month assigned to a health system site. Emphasis of study will be on the pharmacy systems of hospital/health systems, medication safety and quality, and professional practice. Clinical applications will be maintained throughout the rotation. Students will take part in department activities to enhance understanding of the integration of all aspects of patient-centered care within the department and other services in the facility/health system. Faculty preceptors may add site-specific objectives as indicated.

Prerequisites: Successful completion of all pharmacy non-credit requirements and all didactic and experiential pharmacy coursework through semester six.

PHARM 7410P APPE Ambulatory Patient Care Credits: 4
The student will spend one month actively participating in the delivery of direct patient care in an interprofessional ambulatory patient care practice setting where there is an ongoing program of clinical pharmacy services. Students will take part in rounds, conferences, consultations and other activities as directed by the faculty preceptor. Faculty preceptors may add site-specific objectives as indicated.

Prerequisites: Successful completion of all pharmacy non-credit requirements and all didactic and experiential coursework through semester six.

PHARM 7412P APPE Advanced Community Pharmacy Credits: 4
The student will spend one month in a progressive community pharmacy setting. Emphasis of study will be on the clinical aspects of providing comprehensive patient care services to diverse patient populations in a community practice. Patient-centered care activities will be emphasized throughout the rotation. Students will take part in all aspects of patient care within the practice. Faculty preceptors may add site-specific objectives as indicated.

Prerequisites: Successful completion of all pharmacy non-credit requirements and all didactic and experiential pharmacy coursework through semester six.

PHARM 7414 Patient-Centered Care and Ethical Practice Credits: 2
Students will understand the concept as well as the pharmacist's role in providing patient-centered care. Students will learn how to build relationships through consideration of the patient's personal values, preferences and beliefs. Students will learn how to effectively communicate with patients to obtain health and medication histories and to counsel for medication adherence. Drug knowledge for the most commonly prescribed medications will be learned, assessed and applied throughout this course and the associated applied skills lab (7414L). One 2-hour class session is held per week.

Prerequisites: PHARM 7101.

Co-requisites: PHARM 7414L.

PHARM 7414L Applied Skills Lab: Patient-Centered Care and Ethical Practice Credits: 0.5
This applied skills lab is associated with the Patient-Centered Care and Ethical Practice course. Learning activities are designed to complement didactic instruction while allowing students to apply knowledge to patient care in a simulated environment. Students will be afforded opportunities to obtain accurate and comprehensive health and medication histories and provide basic medication counseling. Student achievement of core abilities will be assessed through an Objective Structured Clinical Examination. One 2-hour lab session is held every other week.

Prerequisites: PHARM 7101.

Co-requisites: PHARM 7414.

PHARM 7418P APPE Elective I Credits: 4
Elective experiences give students the opportunity to mature professionally, secure the breadth and depth of experiences needed to achieve curricular outcomes, and explore various sectors of practice. Students may repeat required rotations as electives if space is available or may approach a preceptor to tailor an elective experience to develop an area of interest. Faculty preceptors may add site-specific objectives as indicated. Electives may include a maximum of two experiences without a patient care focus.

Prerequisites: Successful completion of all pharmacy required non-credit requirements and all didactic and experiential pharmacy coursework through semester six.

PHARM 7419P APPE Acute Patient Care Credits: 4
The student will spend one month actively participating in the delivery of direct patient care in an interprofessional acute practice setting where there are ongoing clinical pharmacy services. Students will take part in rounds, conferences, consultations and other activities as directed by the faculty preceptor. Faculty preceptors may add site-specific objectives as indicated.

Prerequisites: Successful completion of all pharmacy non-credit requirements and all didactic and experiential pharmacy coursework through semester six.

PHARM 7420 Pharmacotherapy II Credits: 7
Pharmacotherapy II is designed to develop the student’s ability to assess patients and provide pharmaceutical care. The course focuses on developing and applying problem-solving strategies for complex illnesses commonly encountered in pharmacy practice. Students are expected to identify medical and medication-related problems, recommend drug therapy and monitor for safe and effective drug use. Students are also expected to provide medication counseling. Throughout the semester, students are expected to retrieve and utilize relevant patient data from an electronic medical record system to make patient care decisions. Six hours of large group and two hours of small group discussions occur weekly.

Prerequisites: PHARM 7279, PHARM 7280, PHARM 7307, PHARM 7325, PHARM 7361, PHARM 7362, PHARM 7405, PHARM 7414.

Co-requisites: PHARM 7420L, PHARM 7406P.
PHARM 7420L Applied Skills Lab: Pharmacotherapy II Credits: 0.5
Students enrolled in this applied pharmacotherapy lab will gain skills necessary to provide care for patients with illnesses commonly encountered in pharmacy practice. Learning activities are designed to complement didactic instruction while allowing students to apply knowledge in a simulated environment. Students will be afforded opportunities to utilize home diagnostic and monitoring tests, conduct brown bag reviews, provide medication reconciliation and therapeutically manage patients at a distance (telepharmacy). Student achievement of core abilities will be assessed through an Objective Structured Clinical Examination.

Prerequisites: PHARM 7279, PHARM 7280, PHARM 7307, PHARM 7325, PHARM 7361, PHARM 7362, PHARM 7405, PHARM 7414.

Co-requisites: PHARM 7420, PHARM 7406P.

PHARM 7420P APPE Elective II Credits: 4
Elective experiences give students the opportunity to mature professionally, secure the breadth and depth of experiences needed to achieve curricular outcomes, and explore various sectors of practice. Students may repeat required rotations as electives if space is available or may approach a preceptor to tailor an elective experience to develop an area of interest. Faculty preceptors may add site-specific objectives as indicated. Electives may include a maximum of two experiences without a patient care focus.

Prerequisites: Successful completion of all pharmacy non-credit requirements and all didactic and experiential pharmacy coursework through semester six.

PHARM 7421P APPE Elective III Credits: 4
Elective experiences give students the opportunity to mature professionally, secure the breadth and depth of experiences needed to achieve curricular outcomes, and explore various sectors of practice. Students may repeat required rotations as electives if space is available or may approach a preceptor to tailor an elective experience to develop an area of interest. Faculty preceptors may add site-specific objectives as indicated. Electives may include a maximum of two experiences without a patient care focus.

Prerequisites: Successful completion of all pharmacy non-credit requirements and all didactic and experiential pharmacy coursework through semester six.

PHARM 7422P APPE Elective IV Credits: 4
Elective experiences give students the opportunity to mature professionally, secure the breadth and depth of experiences needed to achieve curricular outcomes, and explore various sectors of practice. Students may repeat required rotations as electives if space is available or may approach a preceptor to tailor an elective experience to develop an area of interest. Faculty preceptors may add site-specific objectives as indicated. Electives may include a maximum of two experiences without a patient care focus.

Prerequisites: Successful completion of all pharmacy non-credit requirements and all didactic and experiential pharmacy coursework through semester six.

PHARM 7424 Introduction To Dietary Supplement Therapeutics Credits: 2
This course is intended to provide students with an awareness of important issues about dietary supplements to consider when providing pharmaceutical care to patients. Students will become familiar with regulations for dietary supplements, learn communication skills specific to discussing supplement use with patients, and the skills to retrieve and interpret reliable information to be able to make decisions about new or unfamiliar supplements.

Prerequisites: PHARM 7361.

PHARM 7427 Hospital Pharmacy Credits: 2
This course in Hospital Pharmacy is designed to expose students to the daily operation of a typical hospital pharmacy, integration of informatics and automation, and understanding of historical concepts in hospital pharmacy management. The course consists of one, two-hour lecture per week. The course will be delivered via traditional didactic lecture format and interactive group discussions.

PHARM 7434 Pharmacy Preparations: Compounding Credit: 1
In the Pharmacy Preparations: Compounding Course, students will gain knowledge and skills necessary to compound extemporary non-sterile preparations. The course will cover regulations governing pharmaceutical compounding in Missouri, ethical considerations applicable to compounds, various dosage forms including advantages and disadvantages of each, techniques used in preparing compounds, and the counseling information to be included for each type of dosage form covered in the course. Students will utilize their knowledge of pharmaceutical calculations in the preparation of the formulations such as calculating doses and ingredient quantities.

Prerequisites: PHARM 7110.

Co-requisites: PHARM 7434L.

PHARM 7434L Applied Skills Lab: Pharmacy Preparations: Compounding Credit: 1
Students enrolled in this compounding lab will apply knowledge gained in the associated course necessary to compound extemporary non-sterile preparations. Students are expected to accurately prepare, dispense, and label a variety of the most commonly prescribed extemporary formulations, including liquid, solid, semi-solid, and topical preparations.

Prerequisites: PHARM 7110.

Co-requisites: PHARM 7434.
PHARM 7439 Pediatric Pharmacotherapy Credits: 3
Pediatric Pharmacotherapy provides disease-oriented and pharmacy-oriented insight into the pathophysiology, diagnosis, and rational drug treatment of diseases primarily encountered in the pediatric population. The pharmacist’s role in selecting drug products, individualizing dosages, and monitoring patients is emphasized.

**Prerequisites:** PHARM 7361, PHARM 7362, PHARM 7420.

PHARM 7451 Pharmacy Law Credit: 1
State laws impacting pharmacy practice.

**Prerequisites:** PHARM 7151.

PHARM 7463 Toxicology Credits: 2
Fundamentals of toxicology, including discussion of the general classes of poisonous substances, their physiological effects, and methods of treatment.

**Prerequisites:** Successful completion of prior professional program coursework or course coordinator's permission.

**Cross Listings:** PHARM 5509.

PHARM 7465 Health Economics and Medicine Credits: 3
This course introduces major economic dimensions of healthcare system and public health practices. Covers concepts necessary to understand provider and consumer behavior, health care market structure, government involvement in health care, reimbursement strategy, determinants of health, distribution channels for biopharmaceuticals, pharmacovigilance, economic evaluation of healthcare services, and comparative-effectiveness research.

**Prerequisites:** PHARM 7233.

PHARM 7466 Pharmacy Practice Leadership, Management, and Innovation Credits: 3
Pharmacy Practice Leadership, Management, and Innovation is a required course for the Doctor of Pharmacy degree program. The goals of the course are to teach basic leadership and management principles and apply them to pharmacy practice in a variety of situations and settings. Leadership principles are related to broad personal and organizational missions and visions. Management principles are related to operational details of managing human resources, inventory, and finances. In order to achieve these goals, this course will review specific topics, including but not limited to, leadership and professional development, entrepreneurship, operations management, application of reimbursement mechanisms, pay-for-performance, and innovative pharmacist services. Pharmacists need to understand these principles and applications as a means of providing optimum care for patients, especially when pharmacists emerge as important contributors to the future of the U.S. health care system.

**Prerequisites:** PHARM 7465.

PHARM 7467 Religion, Culture and Health Credits: 3
This course addresses the impact of religious beliefs, education, and cultural practices on health and healthcare issues pertinent to various segments of our society.

PHARM 7484P Pharmacy Seminar Credit: 1
Pharm. D. Student Seminar course is designed to provide students with examples and reasoning behind the fundamentals of seminar preparation and delivery and opportunity to utilize their knowledge by presenting a seminar. This experience will be achieved through identification of a topic, development and presentation of a seminar. The student is expected to complete two 40-minute seminars over two semesters.

**Prerequisites:** PHARM 7485P.

PHARM 7485L Applied Skills Lab: Pharmacotherapy III Credits: 0.5
Students enrolled in this applied pharmacotherapy lab will gain skills necessary to provide care for patients with illnesses commonly encountered in pharmacy practice. Learning activities are designed to complement didactic instruction while allowing students to apply knowledge in a simulated environment. Students will be afforded opportunities to provide pharmacy services, including but not limited to, Medication Therapy Management, therapeutic Drug Utilization Review, Patient Centered Medical Home and telepharmacy. Multiple activities will incorporate concepts of interprofessional team-based care. Student achievement of core abilities will be assessed through an Objective Structured Clinical Examination.

**Prerequisites:** PHARM 7279, PHARM 7280, PHARM 7307, PHARM 7325, PHARM 7361, PHARM 7362, PHARM 7405, PHARM 7414, PHARM 7420.

**Co-requisites:** PHARM 7485P, PHARM 7406P.

PHARM 7485P Pharmacotherapy III Credits: 7
Students enrolled in the Pharmacotherapy III course will continue developing and applying problem-solving strategies to complex illnesses commonly encountered in pharmacy practice. Students are expected to identify medical and medication-related problems, recommend drug therapy and monitor for safe and effective drug use. Students are also expected to provide medication counseling. Throughout the semester, students are expected to retrieve and utilize relevant patient data from an electronic medical record system to make patient care decisions. Six hours of large group and two hours of small group discussions occur weekly.

**Prerequisites:** PHARM 7279, PHARM 7280, PHARM 7307, PHARM 7325, PHARM 7361, PHARM 7362, PHARM 7405, PHARM 7414, PHARM 7420.

**Co-requisites:** PHARM 7485L, PHARM 7406P.
PHARM 7489AB Introduction to Nuclear Pharmacy & Nuclear Medicine Credits: 2
Nuclear pharmacy employs the safe and effective use of radiopharmaceuticals and other drugs with the purpose of improving patient health. The purpose of this course is to educate students regarding the diagnostic and therapeutic roles of radiopharmaceuticals in healthcare and teach the proper procedures and techniques that go into safely compounding and handling these products. Students will visit Cardinal Health Nuclear Pharmacy where they will be able to demonstrate the techniques they have learned. Students will attend four two-hour lectures and have the opportunity to witness the utilization of a radiopharmaceutical during a diagnostic scan at Truman Medical Center.

PHARM 7489CC Special Topics-Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489CE Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489E Special Topics In Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topic, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489EB Special Topics Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489EF Special Topics Pharmacy Credits: 1-5
PHARM 7489EP Special Topics Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489EPA Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489FD Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489HN Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489ME Special Topics Pharmacy Credits: 1-5
PHARM 7489MG Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489MU Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489N Special Topics In Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489NS Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489O Special Topics In Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.
PHARM 7489OTC Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings.

PHARM 7489PE Special Topics in Pharmacy Credits: 1-5
Special Topics in Pharmacy

PHARM 7489PH Special Topics Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489PT Special Topics In Pharmacy Credits: 1-5

PHARM 7489R Special Topics Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489RB Special Topics Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489SI Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7497E Directed Individual Study-Clinical Pharmacy Credits: 1-4
Study in areas of special interest under individual faculty direction. Elective. Not to exceed five semester credits.
Academic Regulations and Requirements

Class Attendance
Students should refer to the UMKC Attendance Policy (p. 2336) under the Academic Regulations section of this catalog.

Absences from Scheduled Examinations
Students must refer to the individual course policies within the syllabus.

Policy for Examination Process
Students must refer to the individual course policies within the syllabus.

Inclement Weather Policy

Academic Loads
All coursework in the pharmacy curriculum is sequential and success depends upon the instruction and content from the previous semester and builds upon knowledge needed for subsequent semesters. Pharmacy students must enroll for the total program as outlined for each semester in the most current version of the curriculum. Therefore, all coursework and related requirements must be successfully completed in sequence, as outlined, before matriculating to the next professional year.

Grading System
Refer to the grade-point system listed in the General Undergraduate Academic Regulations and Information section of this catalog and to the individual course syllabi. Note: Letter grade changes must be made no later than four weeks from the beginning of the next semester, to include summers, unless a shorter time frame be affixed by a course coordinator. This policy applies to School of Pharmacy departmental courses only and does not apply to incomplete grades.

Doctor of Pharmacy students are not eligible for GPA Adjustment through the UMKC repeated courses policy.

Academic Standing for Doctor of Pharmacy Students
A student’s academic standing is determined by their academic performance while progressing through the University of Missouri-Kansas City School of Pharmacy (UMKC SOP) Doctor of Pharmacy curriculum.

Reasons for the Policy
The UMKC SOP recognizes that students admitted to professional studies may encounter academic difficulty or need a leave to attend to personal issues. The SOP has established policies designed to give students an opportunity to be reinstated following a leave of absence, withdrawal or poor academic performance.

Academic Standing Defined

Good Academic Standing: The student is currently enrolled in the UMKC SOP.

Academic Concern: Less than a C grade on a test or major assignment. Students meeting criteria for Academic Concern will be monitored through the Student Success Program.

Academic Probation: Less than a 2.00 term grade point average (GPA), with no grades of D, F, WF or NC, or less than a 2.00 cumulative GPA in any one semester.

Academic Dismissal:

• Receipt of a D, F, WF or a NC grade in any coursework in a single semester
• Receipt of less than a 2.00 term GPA while on academic probation
• Placement on Academic Probation two consecutive semesters
• Placement on Academic Probation more than two non-consecutive semesters

NOTES:

• Any student who is placed on academic probation is notified in writing by the Associate Dean for Student Affairs (ADSA).
• A student will be notified in writing by the ADSA following their first and second academic dismissal from the Doctor of Pharmacy program.
• A student may request reentry into the program following their first and second academic dismissal from the Doctor of Pharmacy program.

# A student is not eligible for readmission if he/she is academically dismissed for a third time. The third dismissal causes the student to be irrevocably dismissed from the UMKC SOP. A student who is academically dismissed for a third time will be notified by the Dean of the School of Pharmacy.

A student who is irrevocably dismissed from the UMKC SOP may consult with the ADSA or the Director of Student Affairs regarding options for their academic career beyond pharmacy and logistics of transferring to another major. A Faculty Advisor (FA) cannot advise students who are irrevocably dismissed from the UMKC SOP and should refer them to the ADSA or the Director of Student Affairs.

Leave of Absence:

Pharmacy students can petition the Academic Progression Committee for a leave of absence under the following stipulations:

• Student is eligible for reentry into the UMKC SOP.
• P1-P3 year: Petition must be initiated during the current term no later than the 12th week of class.
• P4 year: Petition must be initiated no later than one week before the start of the next rotation.
• Petition includes a personal statement detailing reason for leave.
• Documentation from a health care professional is provided to support reasons for a medical leave.
• Documentation from Department of Defense is provided to support reasons for a military leave.
• NOTE: Petitions for leaves resulting from catastrophic events will be given an exception to the timelines stated above.

Requesting a Leave of Absence

Students requesting a Leave of Absence must submit a completed SOP petition form (http://pharmacy.umkc.edu/pharm-d/policies) then see Program Policies and Procedures then Petition Form, the UMKC Request for Leave of Absence form (http://www.umkc.edu/registrar/forms/leave_of_absence_request.pdf) and required supporting documentation. The forms are submitted to the Office of Student Affairs (OSA) for the School of Pharmacy who forwards them to the Academic Progression Committee Chair. The Chair calls a meeting of the Academic Progression Committee who hears the petition.

Pharmacy students approved for Leave of Absence:

• Will be withdrawn from all courses as per University policy.
• Are approved for up to one year leave only. An extension may be requested if needed and well documented. The extension cannot extend more than two years beyond the original date that the leave started. Students who do not return by the date noted on their approved leave and who are not granted an approved extension will be required to reapply for admission.
• Will not be enrolled for pharmacy coursework in the subsequent semester(s).

A student on a leave of absence will not:

• Be eligible for any financial aid disbursements during the semester(s) while on a leave of absence. A student on a leave of absence will be reported to lenders and loan service agencies as “non-attending” and will need to contact his/her lenders for information on possible repayment requirements, deferments and forbearances.
• Have access to campus computing labs, Student Health and Wellness Services, or any campus or university services available only to currently enrolled students. Students on a leave will be able to maintain their UMKC exchange email account.

NOTE – Any student dismissed from the Doctor of Pharmacy program or approved for a leave of absence must notify the Missouri Board of Pharmacy and their current pharmacy employer of their change in status immediately as they are ineligible to maintain any current pharmacy intern license.

Procedures After a Change in Academic Standing

Academic Probation:

All cases of probation are reviewed by the Academic Progression Committee to discuss reasons for the unsatisfactory progress. Following review, the ADSA will notify the student of their academic probation status by letter. In order to be removed from Academic Probation status, the student must:

• Receive no less than a 2.00 term GPA in the next academic semester;
• Raise their cumulative GPA above 2.00 in the next academic semester.

Readmission After a Leave of Absence:

Petitions for readmission after a leave of absence will be reviewed by the Academic Progression Committee. Re-entry is contingent on their eligibility to continue, results of a new Criminal Background Check, and space available in the class the student seeks to re-enter. Pharmacy students returning from a leave of absence must:
• **P1-P3 year**: Submit the petition form at least two months prior to the beginning of the term applying for re-entry. Upon re-entry, will continue under the student’s same academic standing status that was in place at the time the leave of absence began.

• **P4 year**: Submit the petition form at least one month prior to the desired re-entry date. Note that students are rescheduled to rotations on a space available basis. Attempts will be made to restart the student on their desired date, but there are no guarantees of availability.

• Be held under the policies and procedures in place at the time of their re-entry.

• Complete a new Criminal Background Check.

• If applicable, supply a letter from a health professional and/or other entity verifying that the student can return to full-time, collegiate work.

• Provide any additional documentation from other entities as required by the SOP to support readiness for readmission.

• Incorporate any curricular or policy changes into modified plan of study.

**NOTE:** Program and graduation requirements may change during a student’s leave of absence. It is at the discretion of the SOP to define the program and graduation requirements once the student has been approved to return from a leave of absence.

**Readmission of Eligible Students After Academic Dismissal:**

• A student is eligible for readmission to the Doctor of Pharmacy program after their first and second academic dismissal. The student must request reentry within one year from notice of their academic dismissal. Readmission is determined on a case by case basis.

• If readmitted, the student is placed on an academic contract and must meet the conditions of their contract throughout their remaining time as a UMKC SOP student. A student cannot continue in the program until the Dean or designee has approved the students’ academic contract.

• An academic contract includes an individualized modified plan of study to complete the curriculum and other programmatic requirements and additional expectations needed to maintain enrollment in the program.

• A student **is not eligible for readmission** if they are dismissed after failing to meet the terms of their academic contract for a third time. A third academic dismissal causes the student to be irrevocably dismissed from the UMKC SOP.

The following steps must be completed for an eligible student to request reentry:

• Meet with their FA and the ADSA to discuss factors contributing to their dismissal and their proposed readmission plans (timing, coursework, additional improvement strategies)

• A written contract is developed by the FA, ADSA, ADAA (Associate Dean of Academic Affairs) and other individuals as deemed necessary by the ADSA. Readmission contracts consider, but are not limited to the following factors:

• Performance in previous course work completed by the student and other circumstances surrounding their dismissal.

• Corrective measures taken by the student to address academic readiness, financial problems, personal matters, course work deficiencies, and/or ongoing support needed to address any relevant issues.

• Availability of space in the professional class the student seeks to enter. The student may be assigned to their original campus location or to an alternative campus location based upon space availability.

• Conditions of readmission include, but are not limited to:
  - The student remains on contract and meets all terms in their contract for the duration of their tenure in the Doctor of Pharmacy program.
  - The student meets with their FA and other individuals as set forth in the contract.
  - The student does not receive any grades of NC, D, F in any course during the remainder of their tenure in the Doctor of Pharmacy program.
  - The student does not receive less than a 2.00 term GPA.
  - The student cannot withdraw from any required course unless they have a Leave of Absence approval from the Academic Progression Committee.
  - Completion of a new Criminal Background Check, when necessary.

• The student, FA, ADSA and ADAA discuss the contract. If the student agrees to the stipulations in the contract, he/she signs it and provides a signed copy to ADSA. If the student disagrees, he/she submits a written appeal using the petition form within 10 working days of receipt of the contract. The appeal is submitted to the ADSA who forwards it to the Academic Progression Committee. The Chair calls a meeting of the Academic Progression Committee who hears the appeal. The student is required to present their appeal in person to the Academic Progression Committee. The ADSA, ADAA and FA will answer any questions about the original contract at that meeting. The Academic Progression Committee determines the student’s final contract.

**Request for Modified Plan of Study for Students Not on Academic Contract**

In exceptional circumstances, a student can request a modification to their original curricular plan of study if they are not on an academic contract. Circumstances can include but are not limited to:

• Health or personal reasons not resolved by a Leave of Absence.

• Receipt of course withdrawal without assessment or course withdrawal passing.

• **NOTE:**
• The SOP follows the UMKC Undergraduate Course Withdrawals policy.
• Students should not withdraw from any coursework without first communicating in writing with their FA or the ADSA.
• Students who withdraw from required coursework are ineligible to continue in the regular curriculum, must be approved for a modified plan of study to continue in the program. They may have a delayed graduation completion date.

Students who seek a Modified Plan of Study must meet with their FA, ADSA, ADAA and other individuals as deemed appropriate to develop the plan and submit that plan for approval by the Academic Progression Committee prior to continuing in the program. All modified plans of study are approved on a case-by-case basis, must meet all UMKC and UMKC SOP prerequisites and policies and procedures and be approved by the Academic Progression Committee.

Remediation Policy for UMKC Pharm.D. Program

This remediation policy addresses didactic course-specific remediation.

Remediation Policy:

A. Remediation is a privilege. Considerations for eligibility include (but are not limited to) the following: The student must have demonstrated regular attendance, completed assigned coursework, communicated with the instructor and/or course coordinator, and utilized other available academic resources throughout the semester in an attempt to meet the course learning outcomes and avoid a failing grade. The course coordinator has the right to deny the student the option of remediation.

B. If a student earns a non-progressing grade and has been granted permission to remediate, a course grade of “Incomplete” ("I") will be given.

C. Course remediation will be determined by the course coordinator and completed within 4 weeks following the end of the semester.

D. No grade higher than a "C" can be earned in the course with remediation. If the student fails remediation, the original course grade will take the place of the "I" grade.

E. Students will be allowed to remediate no more than three (3) times during years 1 through 3 of the professional degree program with no more than 2 courses remediated in the same semester.

Appeal of Disputed Grades

Policy Statement

The School of Pharmacy affirms the principle that students are responsible for meeting the standards of academic performance established for each course. Further, the course coordinator is responsible for setting the criteria for grades, evaluation of student performance, and assignment of grades.

Students have the right to appeal for change of the grade they received in a course. Grade appeal is only available for reviewing allegedly capricious grading, and not to review the instructor’s evaluation of the student's academic performance.

Capricious grading, as that term is used here, consists only of any of the following:

1. the assignment of a grade to a particular student on some basis other than the performance in the course;

2. the assignment of a grade to a particular student by resorting to more exacting or demanding standards than were applied to other students in the course; (Note: Additional and/or different grading criteria may be applied to graduate students enrolled for graduate credit in 300 and 400 level courses.)

3. the assignment of a grade by a substantial departure from the instructor's previously announced standards.

Procedures for Appeal of a Disputed Grade

Informal Disposition

Students are encouraged to meet with the course coordinator to discuss the disputed grade prior to formally initiating a grade appeal. If the student is still not satisfied with the grade, they can then initiate the formal grade appeal process as outlined below. The student can also discuss their case with their faculty advisor* as they seek informal resolution.

Pre Appeal Meetings

The student and their faculty advisor may meet with Associate Dean for Student Affairs before entering Step 1a or 1b or at any other time throughout the process to ensure all parties understand the processes involved in a grade appeal. The Associate Dean for Student Affairs is also available to meet with the course coordinator and the relevant division chair to discuss procedural issues.

Appeal Step 1 – Appeal to Course Coordinator
**Step 1a**

- Appeals involving didactic courses

The student will first discuss any disputed grade with the course coordinator.

The student must clearly state in writing that they are enacting Step 1 of the grade appeal process and provide a written petition stating how the disputed grade meets one or more definition(s) of capricious grading. This must be done within six weeks after the beginning of the succeeding regular academic semester.

**Step 1b – Appeals involving Experiential Education**

The student will first discuss any disputed grade with the instructor responsible for the assignment of an experiential rotation grade. In the case of a grade being assigned by an adjunct faculty preceptor, the Director of Experiential Rotations will serve as arbitrator on behalf of the adjunct member. The student must clearly state in writing that they are enacting Step 1 of the grade appeal process and provide a written petition stating how the disputed grade meets one or more definition(s) of capricious grading. This must be done within six weeks after the beginning of the succeeding regular academic semester.

**Appeal Step 2 – Appeal to Division Chair **

If the matter cannot be resolved during Step 1, the student will describe their case in a written petition. The petition must be given to the Division Chair within 10 consecutive calendar days following the meeting with the course coordinator. An airing of the petition with the appropriate Division Chair and the student's faculty advisor* provides the student an opportunity to present the matter in dispute and to assist all parties to comprehend the issue germane to the situation. The Division Chair will report the outcome in writing to the student within 10 consecutive calendar days.

**Appeal Step 3 – Appeal to School of Pharmacy Executive Committee**

If the grade appeal is not resolved to the satisfaction of the student in Step 2, the student requests in writing that the Division Chair refer the matter, with all pertinent records, to the Dean** of the School of Pharmacy. The request must be made within 10 consecutive calendar days of the Chair's notification to the student. The Dean will refer the entire case to the School of Pharmacy Executive Committee (members holding academic appointments) as soon as possible, but no later than 21 consecutive calendar days.

The Executive Committee will:

- Review the Chair's decision and all documents reviewed during Step 2.
- Hear from the student.
- Hear from the course coordinator.
- Find and consider other pertinent data as indicated. The student has the right to submit additional evidence during Step 3.

By formal motion and vote, the Executive Committee will arrive at a recommendation to the Dean to either sustain the grade as assigned or to alter the grade in favor of the student. (NOTE: In this deliberation, the Dean, as Chair, may enter into the deliberation but will not vote on the recommendation, except as necessary to break a tie.) The outcome of this hearing will be reported in writing to the student within 10 consecutive calendar days.

**Appeal Step 4 – Appeal to Provost**

In the event that the student is not satisfied with the outcome of Step 3, the student can appeal to the Provost 10 consecutive calendar days after notification of the Dean's decision.

**Additional Procedural Considerations:**

- Students can request permission to take next semester courses while appealing their grade from the previous semester. The student makes their request in writing to each course coordinator who teaches in the upcoming semester. The coordinator grants or denies permission to the student, in writing, on a case by case basis. The student must have permission from all course coordinators to attend their class while a grade is under appeal in order to progress. The student provides all written permissions to the Associate Dean for Student Affairs who will facilitate registration for that semester.

- No student will be allowed to continue into APPE's until all coursework through the P3 year is complete and all grade appeals are completed.

- If a student exhausts all steps in the appeal process and the grade is upheld, permission to attend the classes is immediately rescinded. Depending upon the timing the grade appeal decision – fees for that semester may or may not be able to be recouped.

- *The student has the right to use someone other than their assigned faculty advisor to assist him/her through the appeal process.

- **The Dean, Associate Dean or Department Chair can name a designee if they are unable to fulfill their role in the appeal process.
• Witnesses or statements of support are not allowed as part of any School of Pharmacy grade appeal hearing. Students can bring their faculty advisor or another individual of their choosing to the hearing. That individual cannot directly address the school representative hearing the case at that step. The student and the individual can speak to each other during the hearing step(s).

• Step 4 procedures are determined by the Provosts office. Appeals are submitted to gradeappeals@umkc.edu.

Noncredit Requirements
All doctor of pharmacy students are expected to actively obtain certain certifications, meet specified standards, as well as participate in professional activities offered or required by the School of Pharmacy. These activities, standards, and certifications mirror those expected in professional practice and are intended to better prepare the student for professional life. The following are requirements for all Pharm.D. students that must be adhered to throughout the program. Students will be notified if additional certifications or requirements apply. Additional information regarding these requirements and other School of Pharmacy Policies and Procedures that must be followed are found on the School's web page at http://pharmacy.umkc.edu/pharm-d/policies/.

The following requirements apply to Doctor of Pharmacy students (as defined for each item), unless a waiver is obtained from the appropriate school official.

Career Fair
All students must attend and participate at the Pharmacy Career Enhancement and Professional Preparation Day during their final year of the program unless previously excused, in writing, in advance of the event by the Dean or designee.

Certifications in Basic Cardiac Life Support/Cardio Pulmonary Resuscitation (BCLS/CPR) for Health Professionals
All students must complete BCLS/CPR through the American Heart Association or the American Red Cross. Certification must be obtained and submitted to the School by December 31 of the P1 year and renewed during the P3 year. The certification must remain current and be valid through the last Advanced Pharmacy Practice Experiential [APPE] rotation.

Health Insurance Coverage
All Pharm.D. students must obtain and provide proof of health insurance coverage no later than the end of the first week of every fall semester and the coverage must remain current throughout enrollment in the program.

Criminal Background Checks (CBCs)
The University, on behalf of the School of Pharmacy, agrees to inform students that as a condition of full admission to the Doctor of Pharmacy program and for participating in any affiliated institution or site [academic service learning and/or introductory and advanced pharmacy practice experiential rotations], students must obtain and provide verification of a current, criminal background check prior to final acceptance/matriculation into the program and again prior to starting any Introductory Pharmacy Practice Experience (IPPE) and any Advanced Pharmacy Practice Experience (APPE). The affiliated hospital/institution/practice site hereby understands and agrees that the decision to permit a student to participate at that affiliated hospital/institution/practice site on the basis of the result of any criminal background check remains solely with the affiliated hospital/institution and not the University. Failure on the student's part to submit to criminal background checks will delay progression or render a student unable to complete the professional degree program. The School of Pharmacy is not responsible if a student is unable to be placed in an educational experience at any affiliation site because of findings on his/her CBC.

Drug Screens
Pharmacy students will be required to complete a urine drug screen annually prior to starting their summer Introductory Pharmacy Practice Experiences and again prior to starting Advanced Pharmacy Practice Experiences. Students may be subject to additional requirements as a condition of participation in experiential education and patient care activities at affiliated sites. The drug screen will be collected as per the Pharm.D. Student Urine Drug Screen Policy (https://pharmacy.umkc.edu/wp-content/uploads/2016/01/UDS_Policy.pdf). If the school is made aware of the results of any positive findings, they will be shared with the Associate Dean for Student Affairs for further evaluation.

Students may be required to complete random drug screens as part of compliance with the UMKC School of Pharmacy Alcohol and Drug Use Policy.

Procedures for Alcohol and Drug Use Related Issue
A. Procedure for Reporting Any History of Alcohol or Drug Related Conviction - Prior to Admission
All applicants admitted to the SOP are provisionally admitted until their Criminal Background Check (CBC) is reviewed and cleared. Failure to report prior drug or alcohol convictions that are discovered following entry into the Pharm.D. program can result in the case being submitted to the Honor Council for review. Any drug or alcohol related conviction on an applicant's preadmission CBC will be investigated by the UMKC School of Pharmacy Associate Dean for Student Affairs (ADSA). These findings can lead to a review by the Admissions Committee and result in the withdrawal of the offer of admission.

B. Procedure for Reporting Alcohol and Drug Related Offenses - Current Students
Any student arrested or charged with a drug or alcohol related offense at any time during their enrollment in the UMKC School of Pharmacy (e.g., minor in possession, driving under the influence, driving while intoxicated, public intoxication, open container, etc.) must notify, in writing, the ADSA within 7 days of the arrest or issue of a citation. The ADSA will investigate the incident and can refer the findings to the Honor Council for review and disposition.

Any student convicted upon a plea or a verdict of guilty or following a plea of nolo contendre to a drug or alcohol related charge, or who receives a suspended imposition of sentence will have their case will be reviewed by the ADSA and they may be remanded to the SOP Honor Council (http://info.umkc.edu/pharmacy/wp-content/uploads/2014/04/Honor_Council_-Procedures.pdf) for review and disposition.

C. UMKC School of Pharmacy Procedure for Working with Chemically Impaired Students

UMKC is committed to providing an environment that is safe, healthy and conducive to the academic achievement of all. Abuse of drugs and alcohol is a disruption to this environment and poses significant health and emotional problems that can jeopardize campus safety, patient safety and the personal and professional development of students.

The School of Pharmacy recognizes its obligations to be supportive of students who are chemically impaired. Students are strongly encouraged to self-report to the SOP ADSA any problems with substance abuse and to seek help voluntarily for their issues. The ADSA can offer information about resources for the student as they seek assistance. If a student is determined to be impaired while in class or during professional practice experiences, their case will be reviewed by the ADSA and they may be remanded to the SOP Honor Council (http://info.umkc.edu/pharmacy/wp-content/uploads/2014/04/Honor_Council_-Procedures.pdf) for review and disposition. In these cases, the school may require monitoring in order for the student to continue as a student in the School of Pharmacy.

D. Available Resources: Alcohol and Substance Abuse Prevention

Kansas City Location - Counseling Center

- Alcohol and other substance use services are offered to assist students, faculty and staff with concerns regarding alcohol and other substances. Specially trained staff are available to provide evaluations, support, educational and early intervention, and recovery related services. The staff can also assist students, faculty and staff in locating resources in the surrounding community for particular needs.

Columbia Location

- Student Health Center - The Student Health Center provides medical services, psychiatric and counseling services, alcohol/drug problems, and health education.

- B.A.S.I.C.S. (Brief Alcohol Screening and Intervention for College Students) - This program, which has been demonstrated by research to reduce harmful drinking behavior in college students, is administered by the Wellness Resource Center. Students referred to the BASICS attend an interactive workshop with a group of their peers, receive personalized feedback, and meet for an hour with a counselor to discuss their alcohol use and related issues.

Springfield – The Counseling and Testing Center at MSU (http://counselingcenter.missouristate.edu)

The Counseling and Testing Center provides a wide array of alcohol and other drug services to currently enrolled students at Missouri State University. Confidential alcohol and drug related assessments and services are provided at the Counseling and Testing Center. Services range from information and referral services to assessments, counseling, and educational programs. Assessments require one session and may require a second follow-up session with a clinician specializing in substance abuse counseling. The assessment will involve an interview and standardized assessment tools. Students may also be seen for brief substance abuse counseling or referred elsewhere, as appropriate.

HIPAA Training

Students must successfully complete HIPAA training annually.

- Note: completing the online HIPAA course does not relieve students from having to complete additional training as required by any individual practice site.

Intern Pharmacist Licensure and Liability Insurance

Students enrolled in the Doctor of Pharmacy curriculum at UMKC are required to obtain a valid Intern Pharmacist License issued by the Missouri Board of Pharmacy during the first semester of enrollment in order to fully participate in the curriculum. In addition students must provide proof of current professional intern pharmacist liability insurance during the first semester of enrollment. The Intern Pharmacist License and Liability Insurance must remain valid through the last Advanced Pharmacy Practice Experience (APPE).

In order to apply for and maintain a valid Missouri Intern Pharmacist License and proper liability insurance, the following rules apply - Student Intern Pharmacist License and Intern Liability Policy (http://pharmacy.umkc.edu/pharm-d/internship-and-licensure-information)

Laptop/Tablet Requirements

Pharm.D students are required to have a wireless capable mobile device for course completion. There is no required brand or model (please note that the Google Chromebook or other laptops/tablets running the Android operating system do not meet specifications). In addition Windows must
not be the "RT" version.). Laptops and tablets must support Windows, OSX, or iOS. If you are unsure regarding compatibility, contact Information Services prior to purchasing a device (http://www.umkc.edu/IS/support/). See the following for specific information regarding minimum and preferred configurations and software for Windows and Macintosh computers - https://pharmacy.umkc.edu/wp-content/uploads/2017/07/Pharmacy_Student_Laptop_Requirements.pdf

Missouri Family Care Registry List
All students must register during their Fall P2 semester. Instructions on how to complete this requirement will be provided from the Office of Experiential Education.

Immunization Requirements
Health care providers (HCP) are at risk for contracting and transmitting infectious diseases as a result of contact with their patients. All doctor of pharmacy students must provide proof of vaccination or evidence of immunity for their own protection and the protection of their patients for these diseases and conditions - Measles, Mumps, and Rubella (MMR), Varicella (Chickenpox), Hepatitis B, Tdap (Tetanus-Diphtheria-Pertussis), Tuberculosis (TB) and influenza. Students living in university sponsored residence halls must abide by the immunization requirements of their respective facilities as well as those listed below. For more information regarding the procedures for submitting documentation proofs, students must refer to the School of Pharmacy Immunization Requirements policy as follows:

• School of Pharmacy Immunization Requirements (http://pharmacy.umkc.edu/wp-content/uploads/2016/03/PharmD-_Student-Immun_Policy_2016-17.pdf)

Pharm.D. Orientation
All entering students must attend and participate in all sessions of the Doctor of Pharmacy orientation prior to full matriculation into the First Professional Year unless they are excused, in writing, in advance of the event by the Dean or designee.

Professionalism Policies and Standards
Students must adhere to all Professionalism Standards.

Standards of Professional and Ethical Conduct and Honor Council Procedures
All students entering the Doctor of Pharmacy program receive are informed about the Honor Council Procedures and Standards of Professional and Ethical Behavior. These policies and procedures provide peer and faculty review to ensure these standards are upheld by each pharmacy student. In all cases of academic dishonesty, the instructor shall make an academic assessment about the student’s grade on that work and in that course.


Standards of Professional Attire and Classroom Behavior
Upon acceptance and entry into the School of Pharmacy, students begin a process of developing the knowledge, skills and attitudes that creates the fundamental core of the profession of pharmacy. The development of these competencies to a practitioner’s level takes several years, but early initiation of these professional behaviors promotes the development of professionalism. In order to provide students direction to this end, upon entering the Doctor of Pharmacy program all students learn about the school’s Standards of Professional Attire and Classroom Etiquette and must abide by these standards.


Minimal Technical Standards for Pharm.D. Admission, Matriculation and Graduation
As a condition for admission, students must read the Minimal Technical Standards for Pharm.D. Admission, Matriculation and Graduation and certify that they are able to meet these standards.


Safety Training
All pharmacy students are required to attend and complete required safety training and receive certification beginning with the First Professional Year and maintain certifications on an annual basis to include, but not limited to, Blood Borne Pathogens, Fire Hazard, Chemical Management, and Hazard Communication.

University of Missouri Code of Conduct Online Tutorial
The tutorial is completed by all Pharm.D. students at MU annually as well as any Pharm.D. students completing a pharmacy experiential rotation within the University Healthcare System prior to enrollment in their summer IPPE and then retaken annually.
White Coat Ceremony
All students are expected to attend and participate in the School of Pharmacy Professional Dedication Ceremony during the appropriate semester, unless previously excused, in writing, in advance of the event by the Dean or designee.

Co-Curricular Requirements
All students are required to complete co-curricular requirements for graduation from the Doctor of Pharmacy program. Co-curricular activities complement and advance the learning that occurs within the formal didactic and experiential curriculum. These experiences are conducted outside the classroom and encompass learning outcomes that take time to gain multiple exposures in order to hone and attain mastery. Students are made aware of these requirements and deadlines for completion each semester of enrollment.

Note: The School of Pharmacy reserves the right to add other noncredit requirements as deemed necessary to protect the health and safety of the students or to further their education.

Directed Individual Study
The opportunity to undertake independent study is offered through Pharmacy 7497 courses. These courses may satisfy part of the pharmacy elective requirements. Generally, the student receives the individual attention of a professor in the chosen field of study, and the project may involve any topic considered appropriate to the academic needs of the student. Once the student and instructor have agreed on a project, a permission-to-enroll form that includes an outline of the proposed course of study signed by the instructor must be reviewed and approved for credit by the school's curriculum committee chair. This must be done at least one month prior to the start of the term in which the coursework is to commence. Pharmacy 7497 requests that are part of a national, regional, or local competitive proposal or any part of a student organizational initiative may not be used for Directed Individual Study proposals.

No more than five credit hours of Pharmacy 7497 courses may be counted toward the degree requirements. Pharmacy 7497 courses are offered on a credit/no credit grading basis.

Off-campus Learning Experiences
All Pharm.D. students are required to participate in experiential learning rotations. All of the experiential learning courses—Introductory Pharmacy Practice Experiences and Advanced Pharmacy Practice Experiences—are conducted in actual practice settings (e.g., community, hospitals, nursing homes, etc.) under the supervision of licensed pharmacy practitioners—instructors who serve as exemplary role models in their particular types of pharmacy practice. Students are expected to provide their own transportation to sites assigned for the experiential learning.

Students may be assigned to an experiential learning experience at a different location than where they completed their didactic coursework. During the Introductory and Advanced Pharmacy Practice Experiential rotations, living, travel, and health expenses are the responsibility of the student. Other expenses may apply.

Outside Employment
Because of the intensity of the professional curriculum, students are strongly urged to limit outside employment to no more than 10 hours per week while enrolled in the school. Students experiencing academic difficulties as a result of commitments to outside employment or over commitments to professional or other extracurricular activities may be asked by the school’s academic progression committee to stop outside work or limit extracurricular involvement until their academic difficulties are resolved.

Campus/Site Transfer
In the event that a Pharm.D. student wishes to transfer from one program site to another, the following policies and procedures are in effect:

1. A student will be allowed only one transfer between program locations during their enrollment in the School of Pharmacy.
2. Students will be allowed to transfer only at the end of an academic year; there will be no mid-year transfers.
3. Students requesting to transfer between program sites must submit a petition to the Associate Dean for Student Affairs by July 1. The Associate Dean will discuss the petition with relevant parties in order to render a final decision. Petitions will be granted on a first-come, first-served basis.
4. Petitions will be granted only if space in the class is available at the program site to which the student wishes to transfer. Transfers resulting in a class size that differs from the initial intended class size require special permission from the Dean.

Additional Policies and Stipulations
Students should refer to the UMKC School of Pharmacy website and individual course syllabi for additional policies and required forms.

Note: Program requirements and course descriptions are subject to change without notice after publication of this catalog. Pharmacy students are encouraged to remain in contact with their advisor and professional staff in the Pharmacy Office of Student Affairs to stay apprised of current program requirements in effect.
Scholarships, Special Awards and Financial Assistance

The Dean's List
At the end of each semester, the names of full-time doctor of pharmacy students whose term GPA is 3.5 or higher are placed on the dean's list. These students receive a letter of congratulations and a notation is placed on their permanent records. Students must complete a minimum full-time semester of 12 graded hours to qualify for the dean's list. The credit/no credit option may not be used as part of the 12 hours.

Degrees With Honors
Students who meet the academic standards prescribed by the faculty will be graduated "with honors." The criteria for Latin honors eligibility is as follows:

Doctor of Pharmacy (Pharm.D.) Students

Honors

Summa Cum Laude
- Pharmacy GPA greater than or equal to 3.750.
- No periods of probation.
- No incidents of unprofessional behavior.

Magna Cum Laude
- Pharmacy GPA greater than or equal to 3.600.
- No periods of probation.
- No incidents of unprofessional behavior.

Cum Laude
- Pharmacy GPA greater than or equal to 3.500.
- No periods of probation.
- No incidents of unprofessional behavior.

No more than 5% of the graduating class will be awarded Summa Cum Laude honors. If more than 5% of the class qualifies under the criteria above, the GPA criteria will be raised and students below the revised GPA will be awarded their degrees with Magna Cum Laude honors.

No more than 5% of the graduating class will be awarded Magna Cum Laude honors. If more than 5% of the class qualifies under the criteria above, the GPA criteria will be raised and students below the revised GPA will be awarded their degrees with Cum Laude honors.

No more than 10% of the graduating class will be awarded Cum Laude honors. If more than 10% of the class qualifies under the criteria above, the GPA criteria will be raised and students below the revised GPA will be awarded their degrees without Latin honors.

1 GPA for Latin honors is the Doctor of Pharmacy GPA on all courses completed at UMKC through the end of the fall semester of the last year of the program.

Graduation Awards
At the annual spring pharmacy commencement ceremony, seniors receiving graduation awards are recognized. At that time, recognition is given to graduating students for superior academic achievement, leadership, and service. Selection of the recipients, except where noted otherwise, is made by vote of the pharmacy faculty in conjunction with the scholarship and awards committee.

Achievers of Excellence Scholarship and Awards Ceremony
Each fall an awards ceremony is held to recognize those students in the School of Pharmacy who receive scholarships or awards from the school, the university or the school's constituent groups. Most of these awards are competitive and are confirmed by the School of Pharmacy scholarship and awards committee.

Student Leadership Recognition
Annually, student leaders are recognized for their efforts on behalf of the school and the university.

Doctor of Pharmacy Graduation Awards

Douglas Adcock Memorial Award
An annual cash award established in memory of Douglas Adcock, a 1977 graduate of the School of Pharmacy, is presented to a student who plans a career in the public health service or who exhibits the ability to overcome adversity with professionalism.
Pharmacy Alumni Association Award
The Alumni Association of the School of Pharmacy gives an engraved plaque to the graduate who has exhibited outstanding leadership in school affairs. Selection is made by the board of directors of the Pharmacy Alumni Association in conjunction with the scholarship and financial aid committee.

The American College of Apothecaries Award
The graduating student who intends to practice in an independent community pharmacy after graduation and who has shown outstanding scholastic achievement and participation in school activities receives an engraved silver bowl from the American College of Apothecaries.

American Pharmacists Association Service Award
A certificate is presented by the American Pharmacists Association-Academy of Student Pharmacists (APhA-ASP) to the graduating student who has done the most for the student branch of the association. Selection is made by the APhA-ASP Executive Board.

First DataBank Medical Writing Award
An Evaluations of Drug Interactions loose leaf edition is presented to a graduating doctor of pharmacy student who has demonstrated excellence in medical writing.

Merck Awards
Merck & Company Inc. of Rahway, N.J., presents a Merck Manual and Merck Index to graduating students for noteworthy academic achievement in the area of pharmaceutical chemistry.

Mylan Pharmaceutical Excellence in Pharmacy Award
Mylan Pharmaceuticals Inc. of Birmingham, Ala., presents a plaque and a limited edition lithograph to a graduate in the top 20 percent of the class who exhibits exceptional skills in the area of drug information dissemination.

The Natural Medicines Comprehensive Database Award
Recognition is presented to the senior student who has shown an interest in the use of natural medicines. The recipient also must have proven academic and extracurricular activities demonstrating outstanding promise in the assessment, evaluation and delivery of patient care related to the use of natural medicines. The recipient receives a copy of the natural medicines comprehensive database, a subscription to the Natural Medicines Continuing Education series and a certificate.

Pharmacists Mutual Award
One year of pharmacists liability insurance is presented by the Pharmacists Mutual Insurance Co. of Algona, Iowa, to a graduate, based on academic achievement and professional pharmacy outlook.

Pharmacy Student Organization Awards
Honors are presented to graduating students based on a combination of scholastic achievement, strength of character, dedication and leadership evidenced during residency in the School of Pharmacy as a member of a university recognized pharmacy student organization. Selection is made by the respective pharmacy student organization officers.

TEVA Outstanding Student Award
A personalized plaque and cash award are presented by TEVA Pharmaceuticals of Sellersville, Pa., to a graduate. The criteria are scholastic achievement, professional pharmacy outlook and participation in school activities.

United States Public Health Service Excellence in Public Health Pharmacy Practice Award
A framed certificate and book award is presented to a graduate whose public and community service efforts are recognized.

Fall Scholarships and Awards
A listing of the over 85 UMKC School of Pharmacy scholarships and awards sponsored through pharmacy donors, alumni and friends of the school and their award descriptions can be found on the School of Pharmacy website under the Scholarships section.

Other Financial Assistance and Awards
Gracia Bremer Loan Fund
An endowment through the unitrust of Gracia Bremer and Mercantile Bank was established in 1996 for pharmacy students enrolled in years one through five of the first professional program who need additional financial support while pursuing a pharmacy degree.
George H. Hargrave Pharmacy Student Loan Fund
An endowment through the unitrust of George H. and Edith L. Hargrave was established in 1994 for pharmacy students enrolled in years one through five of the first professional program who need additional financial support while pursuing a pharmacy degree.
Doctor of Pharmacy

Doctor of Pharmacy Competencies

A pharmacist is a medication expert whose obligation is to deliver pharmaceutical care. Pharmaceutical care is “the responsible provision of drug therapy for the purpose of achieving a definite outcome that improves a patient’s quality of life” (Hepler and Strand). A pharmacist’s functions include, but are not limited to:

- Identifying, preventing and/or resolving drug-related problems.
- Preventing disease and promoting good health practices through rational drug therapy.
- Providing drug information to the public.
- Educating other health care professionals about appropriate drug therapies.
- Collaborating with other health care professionals to improve health outcomes, especially as they relate to the appropriate use of medications.
- Ensuring that medications are delivered to the patient in a safe manner.

Many practice areas are covered by these responsibilities. The curriculum is designed to develop the competencies of graduates, allowing them to assume these responsibilities as well as the all of the current curricular outcomes expected of Doctor of Pharmacy graduates detailed on the School of Pharmacy website under the Curriculum and Registration section at: http://pharmacy.umkc.edu/pharm-d/curriculum-and-registration/.

Admission Requirements

The doctor of pharmacy (Pharm.D.) degree provides minimum and advanced level competencies necessary for the graduate to assume a pharmacist’s professional responsibilities and qualify for national and state pharmacist licensure examinations. The program of study emphasizes clinical sciences and training experiences. The training of doctor of pharmacy students concentrates on rational drug therapy decision-making within the interprofessional health care team.

Doctor of Pharmacy Minimum Pre-Pharmacy Course Requirements

A minimum of 54 credit hours of pre-professional, college level coursework, including the specified requirements listed below, must be successfully completed, with a grade of C or higher, prior to the fall of the entering class year of the professional pharmacy program of study. In addition, an overall cumulative college grade-point average of no less than 2.75, on a 4.0 scale and a science/math grade-point average of no less than 2.5 on a 4.0 scale must be achieved on all college-level work completed through the end of the fall term preceding the year of entry to meet minimum eligibility requirements. Repeated course grades are averaged together in applicants overall cumulative and science/math grade point average calculations. Applicants should note that admission is competitive and that meeting the minimum requirements is not a guarantee of admission. NOTE: Students in the Early Assurance Program must have earned, at time of application, a cumulative college GPA of 3.25 or higher; a collegiate science/math GPA of 3.25 or higher; and a minimum PCAT composite of 40.

Equivalent, pre-pharmacy courses must be completed at UMKC or any regionally accredited college or university. Applicants should contact the UMKC Pharmacy Office of Student Affairs to insure proper course equivalents have been met. Second year college pre-pharmacy courses, listed below, must be successfully completed within five years prior to admission entry date. Applicants with elective space during their pre-pharmacy preparation should consider courses that shape their understanding of the human condition. Courses in psychology, sociology, ethics, and anthropology, will assist a student in assuming their role in caring for people. Completion of additional communication studies courses is also encouraged.

Pre-Pharmacy Courses / Minimum Semester Hours

<table>
<thead>
<tr>
<th>Year I</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Chemistry I &amp; II with Labs</td>
<td>8</td>
</tr>
<tr>
<td>Calculus with Analytical Geometry¹</td>
<td>4</td>
</tr>
<tr>
<td>General Biology I &amp; II</td>
<td>6</td>
</tr>
<tr>
<td>Physics with Lab³</td>
<td>4</td>
</tr>
<tr>
<td>English Composition I &amp; II</td>
<td>6</td>
</tr>
<tr>
<td>Public Speaking or Communication Studies Course</td>
<td>3</td>
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<td>American History I or II or Introduction to Political Science course</td>
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<td>covering U.S. Constitution</td>
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<table>
<thead>
<tr>
<th>Year II</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Organic Chemistry I &amp; II with Labs⁴</td>
<td>8</td>
</tr>
<tr>
<td>Cell Biology⁴</td>
<td>3</td>
</tr>
</tbody>
</table>

¹ Calculus with Analytical Geometry: MATH 214 and 215.
² General Biology I & II: BIOL 102 and 104.
³ Physics with Lab: PHYS 111 or 117.
⁴ Cell Biology: BIOL 115.
Human Anatomy with Lab\(^{4,5}\) 4
Microbiology with Lab\(^{4}\) 4
Medical Terminology\(^{4}\) 1

Total Credits: 54

1. Calculus courses that are less than 4.0 credit hours or that do not include analytical geometry will not meet the minimum requirement.
2. Preparatory or introductory biology courses will not meet the minimum requirement.
3. Physics courses must be at least algebra and trigonometry based.
4. NOTE: Second year college pre-pharmacy courses must be successfully completed within five years prior to Fall admission entry date.
5. Successful completion of two semesters of Human Anatomy and Physiology with labs will meet the Human Anatomy requirement.
Comparative or Vertebrate Anatomy courses will not meet the Human Anatomy requirement.

General CLEP credits will not be accepted to fulfill the mathematics, biology, physics, or chemistry requirements. Advanced Placement Program scores through the College Board are accepted for some pre-pharmacy courses. Check acceptable scores and courses at [http://www.umkc.edu/registrar/transfer-credit/default.asp](http://www.umkc.edu/registrar/transfer-credit/default.asp). Contact an academic advisor in the School of Pharmacy regarding minimum score requirements and course transferability. Official scores from the College Board must be sent to the UMKC Records Office for evaluation.

**Early Assurance (EA) Program**

UMKC School of Pharmacy offers an Early Assurance Program for high school students with a strong interest in and aptitude for science and math and excellent communication skills. Students who meet the EA criteria for admission from high school have an assured seat in the Pharm.D. program if the minimum specified requirements from EA to the Pharm.D. program are achieved during their collegiate freshmen and sophomore years at UMKC. The minimum eligibility criteria to apply for the EA program include a non-weighted high school GPA at the end of the junior year of 3.5 or higher; ACT composite of 25 or higher or SAT equivalent; meet the UMKC core requirements through high school curricular units. Students wanting to apply for the EA Program must complete and submit the following, no later than the March 1st deadline: the on-line UMKC Application For Admission and fee; the on-line Early Assurance Application; official high school transcripts through semester six; official college transcripts as applicable; official ACT/SAT scores; and one reference letter.

Additional information regarding degree program and admission requirements is located on the UMKC School of Pharmacy Pharm.D. Admissions webpage located at [https://pharmacy.umkc.edu/pharm-d/](https://pharmacy.umkc.edu/pharm-d/). Applicants with questions regarding admission should contact

UMKC School of Pharmacy
Office of Student Affairs
2464 Charlotte Street, Suite 1219 / Kansas City, MO / 64108
(816) 235-1613/ Fax (816) 235-5562
pharmacy@umkc.edu

**Application Procedures**

Applications for the doctor of pharmacy program are accepted between July 1 through March 1 for consideration for admission to the class entering the following fall. Note that applicants applying for PharmCAS Early Decision have an earlier deadline date of September 1st. Admission to the Doctor of Pharmacy program is competitive and meeting minimum requirements for admission does not guarantee admission. New students are admitted to the doctor of pharmacy program only in the fall of each year.

As part of the process for application to the Doctor of Pharmacy program, all of the application steps and instructions located within the applications must be adhered to carefully and all required documents must be submitted no later than the March 1st deadline, unless otherwise stated. Applicants must:

1. Complete and submit the PharmCAS application with all supporting and required documentation and fee. The PharmCAS application is located at [http://www.pharmcas.org/](http://www.pharmcas.org/). Official transcripts(s) from each college and/or university attended showing all coursework attempted and completed through the Fall term prior to admission entry date must be submitted to PharmCAS;
2. Submit recent, official scores from the Pharmacy College Admission Test (PCAT) to PharmCAS;
3. Submit an electronic PharmCAS reference from specified categories only as noted on the UMKC Doctor of Pharmacy application; references from relatives, friends, or co-workers will not be accepted.
4. Complete and submit a UMKC Doctor of Pharmacy Application for Admission, to include supplemental materials and application fee. The UMKC Pharm.D. Application for Admission is located at [https://pharmacy.umkc.edu/pharm-d/](https://pharmacy.umkc.edu/pharm-d/);
5. Meet and adhere to the [UMKC School of Pharmacy Minimal Technical Standards for Admission, Matriculation and Graduation](https://pharmacy.umkc.edu/pharm-d/policies/) as part of the Pharm.D. Application. The Standards are listed on the application, as well as at [http://pharmacy.umkc.edu/pharm-d/policies/](http://pharmacy.umkc.edu/pharm-d/policies/) on the School of Pharmacy website under the Policies and Procedures section. Students admitted to the Pharm.D. program must continue to meet and adhere to these standards throughout their tenure in the Pharm.D. program;
6. International applicants must complete the UMKC International Undergraduate Application for Admission (http://www.umkc.edu/isao/) in addition to the PharmCAS Application and the UMKC Doctor of Pharmacy Application. Copies of all materials submitted to the International Student Affairs Office must be sent to the Pharmacy Office of Student Affairs. The minimum TOEFL [Test of English as a Foreign Language] score required for Pharm.D. applicants is 560 [paper-based]; 220 [computer-based]; 83 [internet-based]. International applicants whose native language is not English or who received their education in a country where the first language is not English must

   a. Meet the UMKC English Proficiency requirements
   b. Complete the English Evaluation Examination prior to the first semester of enrollment
   c. Follow recommendations from the UMKC Applied Language Institute.

7. Complete a formal, structured interview, if selected, at the School of Pharmacy on the UMKC campus as a factor for admission. Applicants are notified by e-mail before their scheduled interview. Applicants should note that meeting minimum eligibility requirements does not automatically qualify an applicant for an interview. Based on the academic and application credentials of the applicant and the applicant pool, the school will select candidates for an interview. Students who do not qualify for the interview will also receive written notice.

**Notification of Acceptance**

Admission to the Pharm.D. program is competitive. Applicants will receive written notification of the school’s decision concerning their applications.

Official supplementary college transcripts must be submitted to the Pharmacy Office of Student Affairs upon completion of winter/spring and summer coursework. Final acceptance is contingent on submission and clearance of a criminal background check, good academic and behavioral standing, successful completion (grade of C or higher) of the specified minimum hours of required pre-pharmacy courses and any other coursework completed during the winter/spring and/or summer term prior to admission. Those applicants approved for admission will be required to confirm their acceptance and submit an advance deposit to guarantee their place in the entering class. This deposit is applied to the first term’s educational fees and is not refundable.

**Curricular Requirements**

The doctor of pharmacy degree program provides broad and general preparation in professional areas of practice with the intent that, on completion, graduates will be able to practice at a level sufficient to perform the established functions of a pharmacist. In addition, the Pharm.D. program prepares the student for advanced levels of professional practice. The major emphasis is on the clinical sciences and drug-related patient care.

This program is designed to provide advanced education and training in clinical pharmacy and drug information with particular emphasis on interprofessional team participation in the delivery of health care. To enable students to concentrate solely on this advanced professional coursework, those entering the doctor of pharmacy program are strongly encouraged to limit their work and/or intern hours during the academic year.

Because pharmacy is a profession undergoing rapid change, the curriculum is subject to continual review and modification. As society’s needs for specific types of pharmaceutical service change, the curriculum will change as well. To assure the best pharmacy education for its students, the School of Pharmacy reserves the right of making judicious changes and improvements in course sequence, course content, or other program requirements at any time that must be completed and adhered to in order to meet graduation degree requirements.

**Pharm.D. Graduation Requirements**

To graduate, Pharm.D. candidates must successfully, grade of C or higher, complete the 4 year curricular course requirements as listed in addition to the prerequisite course requirements.

To graduate, students must successfully complete all credit and non-credit requirements as listed and in effect at the time of completion. Within these hours, the following credit hour minimums must be met:

**Pharm.D. Admission Prerequisites**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Semester 1 Prerequisites</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 211 &amp; 211L</td>
<td>General Chemistry I and Experimental General Chemistry I</td>
<td>5</td>
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<tr>
<td>MATH 210</td>
<td>Calculus I</td>
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<tr>
<td>BIOLOGY 108</td>
<td>General Biology I</td>
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<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
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<tr>
<td>Anchor I course which corresponds with Discourse 1</td>
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<td>3</td>
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<td>Total Credits</td>
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<tr>
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<tbody>
<tr>
<td>Semester 2 Prerequisites</td>
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</tbody>
</table>
CHEM 212R  General Chemistry II
& CHEM 212LR  and Experimental General Chemistry II
PHYSICS 210  General Physics I
BIOLOGY 109  General Biology II
DISC 200  Discourse II: Culture and Diversity (Writing and Speech)
Anchor II course which corresponds with Discourse II.

Total Credits 18

<table>
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<tr>
<th>Code</th>
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<tr>
<td>LS-ANATO 218</td>
<td>Introductory Anatomy and Introductory Anatomy Laboratory</td>
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<tr>
<td>CHEM 321</td>
<td>Organic Chemistry I and Organic Chemistry Laboratory I</td>
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</tr>
<tr>
<td>BIOLOGY 202</td>
<td>Cell Biology</td>
<td>3</td>
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<td>Select a Communication Studies course.</td>
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Total Credits 15

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<tr>
<td>NURSE 125</td>
<td>Medical Terminology</td>
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<tr>
<td>CHEM 322R</td>
<td>Organic Chemistry II</td>
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<tr>
<td>CHEM 322L</td>
<td>Organic Chemistry Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>LS-MCRB 121</td>
<td>Human Biology III (Microbiology) and Human Biology III (Microbiology) Lab</td>
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<td>Select any one of the following courses:</td>
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<td>HISTORY 101</td>
<td>U.S. History to 1877</td>
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<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877</td>
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<tr>
<td>POL-SCI 210</td>
<td>American Government</td>
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Total Credits 12

Marked Science courses must be completed within five years of Pharm.D. program start date.

**Student Learning Outcomes**

**Curricular Outcomes Expected of Doctor of Pharmacy Graduates**

Doctor of Pharmacy graduates must possess the basic knowledge, skills, attitudes, and values to independently practice pharmacy at the time of graduation. These Curricular Outcomes expectations are outlined in full on the UMKC School of Pharmacy website under the Curriculum and Registration section at: http://pharmacy.umkc.edu/pharm-d/curriculum-and-registration/#main-content.

**First Year**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credits</th>
<th>Spring</th>
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<tr>
<td>PHARM 7341</td>
<td>3</td>
<td>PHARM 7344</td>
<td>3</td>
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<tr>
<td>LS-PHYS 399</td>
<td>3</td>
<td>LS-PHYS 400</td>
<td>3</td>
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<tr>
<td>LS-BIOC 370</td>
<td>4</td>
<td>PHARM 7414</td>
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<td>PHARM 7101</td>
<td>2</td>
<td>PHARM 7414L</td>
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<tr>
<td>PHARM 7110</td>
<td>2</td>
<td>PHARM 7202</td>
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<tr>
<td>PHARM 7151</td>
<td>1</td>
<td>PHARM 7233</td>
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<td>PHARM 7279</td>
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<td>PHARM 7361</td>
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Professional Electives 1.0 - 8.0
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<th></th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
<th>Summer</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>Second Year</strong></td>
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<tr>
<td>Fall</td>
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<tr>
<td>PHARM 7245</td>
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<td>PHARM 7303</td>
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<td>PHARM 7378</td>
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<td>PHARM 7465</td>
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<td>PHARM 7325</td>
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<td>PHARM 7325L</td>
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<td>PHARM 7280</td>
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<td>PHARM 7434</td>
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<td>Professional Electives 1.0 - 8.0¹</td>
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<td><strong>Total Credits</strong></td>
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<th>Summer</th>
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<td><strong>Third Year</strong></td>
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<tr>
<td>Fall</td>
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<tr>
<td>PHARM 7420</td>
<td>7</td>
<td>PHARM 7485P</td>
<td>7</td>
<td>Advanced Pharmacy Practice Experiences (APPE hours vary)³</td>
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<td>PHARM 7420L</td>
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<td>PHARM 7485L</td>
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<td>PHARM 7326</td>
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<td>PHARM 7406P²</td>
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<td>PHARM 7389</td>
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<td>Professional Electives 1.0 - 8.0¹</td>
<td>Professional Electives 1.0 - 8.0¹</td>
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<td><strong>Fourth Year</strong></td>
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<td>Fall</td>
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<td></td>
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<tr>
<td>Advanced Pharmacy Practice Experiences (hours vary)³</td>
<td>16</td>
<td>Advanced Pharmacy Practice Experiences (hours vary)³</td>
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<tr>
<td><strong>Total Credits</strong></td>
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<td>16</td>
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Total Credits: 135.5

¹ A minimum of eight credit hours of professional elective course work must be successfully completed prior to enrollment in Advanced Pharmacy Practice Experiences (APPE). Visit [http://pharmacy.umkc.edu/pharm-d/curriculum-and-registration/#main-content](http://pharmacy.umkc.edu/pharm-d/curriculum-and-registration/#main-content) under the Curriculum and Registration section and review the Guidelines for Electives and the list of potential professional elective offerings. Students should choose electives and semester placement after consultation with a pharmacy academic advisor in the Office of Student Affairs and/or their faculty advisor.

² PHARM 7406P IPPE: General Medicine I is a continuous introductory pharmacy practice experience completed over both fall and spring semesters.

³ Students must complete 36 credit hours of Advanced Pharmacy Practice Experiences [APPE] over Semesters 6a-8. APPE prerequisites include satisfactory completion of all credit and non-credit degree and course requirements prior to Semester 6a of the professional curriculum.

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Prospective Applicants are encouraged to:

- Visit [http://pharmacy.umkc.edu](http://pharmacy.umkc.edu) to see equivalencies for schools in Missouri and Kansas to see how prerequisites will transfer to UMKC.
- Visit [http://www.umkc.edu/registrar/transfer-credit/default.asp](http://www.umkc.edu/registrar/transfer-credit/default.asp) to review UMKC AP & IB course work minimums.
**Doctor of Pharmacy Professional Program**

A pharmacist is a medication expert whose obligation is to deliver pharmaceutical care. Pharmaceutical care is "the responsible provision of drug therapy for the purpose of achieving a definite outcome that improves a patient’s quality of life" (Hepler and Strand). A pharmacist’s functions include but are not limited to:

- Identifying, preventing and/or resolving drug-related problems.
- Preventing disease and promoting good health practices through rational drug therapy.
- Providing drug information to the public.
- Educating other health care professionals about appropriate drug therapies.
- Collaborating with other health care professionals to improve health outcomes, especially as they relate to the appropriate use of medications.
- Ensuring that medications are delivered to the patient in a safe manner.

Many practice areas are covered by these responsibilities. The curriculum is designed to develop the competencies of graduates, allowing them to assume these responsibilities as well as the all of the current curricular outcomes expected of Doctor of Pharmacy graduates detailed on the School of Pharmacy website http://pharmacy.umkc.edu/pharm-d/curriculum-and-registration/#main-content under the *Curriculum and Registration* section.
Interdisciplinary Ph.D. Degree Requirements in Pharmaceutical Sciences and Pharmacology

Interdisciplinary Ph.D. Program Requirements

See discipline-specific requirements for the Interdisciplinary Ph.D. program in Pharmaceutical Sciences and Pharmacology and Toxicology in the School of Graduate Studies section of this catalog.
University College

Located in the UMKC Student Success Center
UMKCUCollege@umkc.edu

Mailing Address
University of Missouri-Kansas City
5100 Rockhill Road
Kansas City, MO 64110-2499

Associate Vice Provost-University College:
Kim McNeley, Ph.D.

Retention Coordinator/Academic Advisors:
Susi Krulewich and Kim Liebold

General Information

What is a University College?
University College is an administrative structure that coordinates the overall academic experience of incoming undeclared/exploratory students and continuing students in transition between majors. University College is a portal to the ultimate academic unit in which the student will be granted a degree.

Exploratory or Transitioning Student
Exploratory students are students that are simply not ready to select a major, whether at the time that they enter UMKC or after realizing their initial decisions regarding a major are not what they want. Nationally, a large percentage of students entering colleges and universities are unsure of their academic plans. Estimates indicate that as high as 70% of students change their major at least one time during their academic careers.

Mission
Our mission is to offer every exploratory or transitioning student the opportunity for success through the engagement with faculty and staff, the development of educational plans, the clarification of career and life goals, and the appreciation of the value of the core skills developed through UMKC’s general education.

The University College will contribute to the University’s mission of providing a “vibrant learning and campus life experience” through the development of a focused community of faculty, students, and staff with a shared responsibility for each student’s achievement of advising goals and progress toward degree completion.

Explore, Network, and Decide
Exploratory students are expected to take an active role in their education through systematic exploration, networking, and active decision making. UCollege student success teams will provide a supportive environment for this approach. UCollege student success teams will be made up of: the Associate Vice Provost for University College and Undergraduate Advising, University College Retention Coordinators/Academic Advisors, seminar series faculty, librarians, peer mentors, and Student Success Center staff.

Cross-Campus Collaboration
The mission of University College is impossible without a multidisciplinary participation and collaboration among all undergraduate academic units. Students in University College explore academic options across the University. Faculty selected to mentor students through the UCollege seminar series are purposely drawn from a breadth of disciplines. Close collaboration between UCollege and all academic units is critical to the successful exploration and ultimate transition of students to their most appropriate academic homes in the College of Arts and Sciences or one of UMKC’s schools.

Academic Advising
University College Retention Coordinators will partner with each student in the development and completion of educational goals. Retention Coordinators will provide cross-college academic advising and connections with potential academic units, and facilitate ongoing support and evaluation of each student’s progress.

Advising Expectations
• Fostering Academic Success
  University College Retention Coordinators will partner with each student in the development and completion of educational goals. Retention Coordinators will provide cross-college academic advising and connections with potential academic units, and facilitate ongoing support and evaluation of each student’s progress. Students are required to meet with their UCollege Retention Coordinator for a minimum of Goal Setting, mid-term check, & enrollment planning sessions during each term.
• Registration Approvals
All University College students are required to secure an UCollege Retention Coordinator’s approval to register for classes. To gain this approval, students must fully participate in enrollment advising expectations set by their UCollege Retention Coordinator prior to enrollment. This advising may include contact with other academic units and/or the completion of additional assessment so that course selection may be optimized. Students’ registration must include enrollment in at least one University College seminar each semester. The appropriate University College seminar and core curriculum may be administratively added to students’ enrollment to ensure that students are making purposeful progress toward major selection.

• Declaration of Major

All UCollege students are required to complete processes of Change of School and Declaration of Major with the appropriate academic unit and the University Registrar.

All UCollege students will be advised of the advising process of the academic unit to which they are transitioning.

**Enrollment**

• Enrollment for Term

Students must enroll in all required courses and make appropriate selections from optional courses as discussed and documented in their enrollment advising meeting.

All UCollege students should complete enrollment, prior to the first day of classes. All changes to courses indicated as required by the UCollege Retention Coordinator during enrollment advising should be approved by the UCollege Retention Coordinator.

All UCollege students on academic probation are required to complete enrollment prior to the first day of classes. After this day enrollment holds will not be lifted, and therefore no enrollment will be permitted for the term.

• Adding/Dropping a Class

Additions of courses after the first week of classes are deemed unusual and typically negatively impact students’ ability to succeed. Students wishing to add/drop after the published deadlines must petition UCollege for an exception to normal academic policy. Forms submitted after the published deadlines must be accompanied by an appropriate, approved petition.

All UCollege students on academic probation are required to complete all courses required by their UCollege Retention Coordinator and documented in their enrollment advising.

**Academic Status Related To Grade Point Average**

Undergraduate degree-seeking students’ academic status is assessed at the end of every term, whether the student is full-time or part-time for that term. A summer session is considered the same as a semester for the purpose of the following regulations:

• In general, students will be placed on academic probation whenever their official UM grade-point average falls below 2.0 (C average). First time college freshman admitted to UMKC on the basis of high school records, who have grade-point averages between 1.50 and 1.99 at the end of the first semester of either full- or part-time study will be placed on academic warning. Students on academic warning must achieve an overall 2.0 average by the end of their second semester or be placed on regular probation.

• Students on academic probation will be restored to good standing whenever the UM grade-point average reaches 2.0 or the GPA level established by their academic units.

• Students on academic probation must remove themselves from probation within three successive semesters (including the semester in which they originally were placed on probation). Otherwise they are ineligible to re-enroll without the approval of the academic units.

• Students are responsible for knowing their academic status by referring to Pathway and their permanent transcript.

• UMKC students transitioning from an academic unit into University College will be reviewed under the above stipulations. Students on probation or dismissed (ineligible to re-enroll) from another UMKC academic unit may be admitted into University College under contracts. In order to be admitted into University College, the student must submit a Petition for Exception including an Academic Recovery plan. This petition must be approved prior to the first day of the term.

**Dean’s List – Term Performance**

The Dean’s List is a recognition of excellent academic performance. Students must complete a minimum full-time program of 12 graded hours to qualify for the dean’s list with a minimum of a 3.5 grade.

**University Requirements**

**General Education**

The UMKC General Education Core (p. 2250) is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus and is detailed in the General Education (p. 2250) section of the catalog.

**Constitution Course**

Every undergraduate student must take a course covering the United States Constitution and the Missouri State Constitution before graduation. Course options are included in the program requirements section below.
RooWriter Assessment
Candidates for all baccalaureate degrees must complete the online UMKC RooWriter Writing Assessment after they have passed Discourse 200 (or its equivalent) but before they have attained 90 credit hours. Incoming transfer students with more than 90 credit hours must complete the RooWriter by the end of their first semester of enrollment or within one semester after passing Discourse 200 (or its equivalent). Students who have not completed the RooWriter Writing Assessment within two semesters after passing Discourse 200 (or its equivalent) will be blocked from enrollment until they successfully complete the RooWriter. Additional information is available in the Undergraduate Academic Regulations and Information (p. 2349) section of the catalog.

Exit Examinations
Information on exit examinations and/or major field exams is available in the Undergraduate Academic Regulations and Information (p. 2341) section of the catalog.

Student Learning Outcomes
Students participating in the program will:

1. Identify and engage with relevant faculty, staff, and community contacts to further career and major exploration;
2. Demonstrate an understanding of the value of UMKC's General Education requirements and the relevance of this knowledge and skills to his/her academic and career goals: Communication Skills, Technology and Information Literacy, Scientific Reasoning and Quantitative Analysis, Arts and Humanities, Interdisciplinary and Innovative Thinking, Culture and Diversity, Human Values and Ethical Reasoning, Civic and Community Engagement;
3. Demonstrate how to effectively access and interact with academic information sources (Undergraduate Catalog, Major Maps, Pathway, DARS – Degree Audit Record System); Identify and utilize appropriate campus resources and opportunities that can contribute to his/her educational experience, goals, and campus engagement (i.e. Writing Studio, Math and Science Resource Room, and Career Services);
4. Identify broad areas of his/her academic interests, aptitudes, and abilities as a step toward major & career selection;
5. Develop short- and long-term academic plans and initiate proactive steps toward completion; Identify and comply with relevant academic policies, processes, and procedures related to advising, course planning, and major exploration;
6. Demonstrate an understanding of the value of workplace and community diversity;
7. Demonstrate an understanding of the value of thorough and ongoing personal assessment, balanced with timely decision-making as components to career planning;
8. Demonstrate factual knowledge (terminology, classifications, methods, trends) gained about career decision-making and development;
9. Develop knowledge of specific skills, competencies, and points of view needed by professionals in the fields in which he/she is interested; Demonstrate how to effectively utilize information sources related to possible career options (i.e. Handshake Career Network, O*Net, Occupational Outlook Handbook U.S. Bureau of Labor Statistics, Faculty and field informational interviews);
10. Use written and oral communication to discover, develop, and articulate plans, ideas and viewpoints regarding career and major choice;
11. Address and interpret evidence gained from multiple sources including self-assessments (strengths, interest, personality, values), course experiences/grades work volunteer experiences, extracurricular activities, and other experiences;
12. Define roadblocks and develop solutions in choosing a major/career path;
13. Develop a personal portfolio which includes a realistic plan to reach career and major goals.

University College Requirements and Regulations
Progress Toward Decision: Admission/Declaration

- Exposure to Academic Disciplines: Hours Completed
- During the term in which the completion of 45 hours credit hours of acceptable college work occurs and admission requirements have been met, students will complete the administrative process of transitioning to the ultimate academic unit in which their degree will be granted.
- Students transferring into UMKC with greater than 45 hours of acceptable college work will be required to meet all admission requirements during their initial Fall or Spring term at UMKC. Declaration of major and/or admission processing must be completed by 20th day of the following term.
- Students unable to make a decision regarding their major by the guidelines noted above must provide a plan for the upcoming academic semester and/or requirements and petition University College for permission to continue.

- Purposeful/Required Course Enrollment to Support Decision-making
  - All University College students will enroll in the appropriate level University College seminar course(s) during both Fall and Spring semesters. These courses are: ANCH 101, UNIV 100, UNIV 102, UNIV 202.
  - Early and continuous enrollment in the appropriate Discourse and Anchor course pair, as well as, mathematics and/or foreign languages courses are required depending upon the student’s selected exploratory track.
  - A grade of C- or higher is required in UNIV 100, ANCH 101, UNIV 102, UNIV 202, DISC 100, DISC 200, and/or MATH (100 or 200 level) courses.
Critical courses will be designated for each plan of study based on academic unit recommendations. Required courses for each enrollment term will be determined by the student’s UCollege Retention Coordinator based on the student expressed academic interests.

University College Requirements focus on the completion of the UMKC General Education Core that build foundational skills required for all fields. Students select one of four exploratory tracks and utilize both UMKC General Education Core Requirements and specified Major Critical Courses to explore and identify their optimal academic plans (degrees, majors, and minors). Options below highlight these exploratory course options by track.

### Arts, Culture, and Human Expression Mega-Major

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td><strong>Written and Oral Communication</strong></td>
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<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
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<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
<td>3</td>
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<tr>
<td><strong>Foreign Language</strong></td>
<td>9</td>
<td></td>
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<tr>
<td><strong>Complex Problem Solving</strong></td>
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<tr>
<td>ANCH 101</td>
<td>University College Seminar</td>
<td>3</td>
</tr>
<tr>
<td>Anchor II</td>
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<tr>
<td>UNIV 100</td>
<td>Academic Development (may be required)</td>
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<tr>
<td><strong>Quantitative Reasoning</strong></td>
<td></td>
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<tr>
<td>MATH 110</td>
<td>Precalculus Algebra (Focus B)</td>
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</tr>
<tr>
<td>or MATH 116</td>
<td>Mathematics For Liberal Arts</td>
<td></td>
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<tr>
<td>MATH 100</td>
<td>Intermediate Algebra (may be required; depending on ALEKS Placement)</td>
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<tr>
<td><strong>Interest Exploration Through UMKC General Education Focus and Critical Courses</strong></td>
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<tr>
<td><strong>Historical Perspective</strong></td>
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<tr>
<td>ART-HIST 201</td>
<td>From Cave Paintings to Cathedrals</td>
<td>3</td>
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<tr>
<td>ART-HIST 202</td>
<td>From Michelangelo to Modernism</td>
<td>3</td>
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<tr>
<td>HISTORY 201</td>
<td>European History to 1600</td>
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<tr>
<td>HISTORY 202</td>
<td>European History since 1600</td>
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<tr>
<td>HISTORY 206</td>
<td>World History To 1450</td>
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<tr>
<td>HISTORY 208</td>
<td>World History since 1450</td>
<td>3</td>
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<tr>
<td><strong>Mode of Expression</strong></td>
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<tr>
<td>ART 105</td>
<td>Introduction To Photography</td>
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<tr>
<td>ART 112</td>
<td>Foundation Drawing</td>
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<tr>
<td>ART 114</td>
<td>Foundation Digital Design</td>
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<tr>
<td>ART 121</td>
<td>Foundation 2D Design</td>
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<tr>
<td>ART 131</td>
<td>Foundation 3D Design</td>
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<tr>
<td>ART 235</td>
<td>Digital Imaging I</td>
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<tr>
<td>COMM-ST 220</td>
<td>Introduction: Modern Communications Media</td>
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<td>COMM-ST 250</td>
<td>Introduction to Film and Video Production</td>
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<td>COMM-ST 260P</td>
<td>Introduction To Web Communications</td>
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<td>COMM-ST 265</td>
<td>Visual Communication</td>
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<td>CONSVTY 118</td>
<td>Electronica (Focus A)</td>
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<td>CONSVTY 125</td>
<td>History and Development of Rock and Roll (Focus A)</td>
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<td>CONSVTY 126</td>
<td>Introduction to World Music (Focus A)</td>
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<tr>
<td>CONSVTY 103N</td>
<td>Fundamentals of Music (Focus A)</td>
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<tr>
<td>CONSVTY 120N</td>
<td>Music Appreciation (Focus A)</td>
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<tr>
<td>THEATRE 101</td>
<td>Introduction To Acting</td>
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<td>THEATRE 130</td>
<td>Foundations Of Fine Arts Theatre</td>
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<td>THEATRE 210</td>
<td>Introduction To Design For The Theater</td>
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<tr>
<td><strong>Culture</strong></td>
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<tr>
<td>ANTHRO 103</td>
<td>Introduction To Cultural Anthropology</td>
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<tr>
<td>BLKS 201</td>
<td>Global Systems and the Origins of Black American Culture and Institutions</td>
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<tr>
<td>LLS 201</td>
<td>Introduction to Latina/o Studies</td>
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<tr>
<td>PHILOS 210</td>
<td>Introduction to Philosophy (Focus A)</td>
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</table>
PHILOS 221  Contemporary Moral Issues  3
ENGLISH 141  Women and Literary Culture/The Heroine in Literature (Focus A)  3
WGS 201  Introduction To Women's, Gender, and Sexuality Studies  3

Written Text
CLASSICS 119  Myth and Literature  3
CLASSICS 131  Seven Wonders and Beyond: Archaeological Wonders of the Ancient World  3
ENGLISH 119  Myth and Literature  3
ENGLISH 120  Literary Monstrosities  3
ENGLISH 123  True Lives: Autobiographical Arts and Acts  3
ENGLISH 124  Writing About Literature  3
ENGLISH 126  Popular Literature  3
ENGLISH 130  Introduction to Human Language  3
ENGLISH 200  Introduction To Undergraduate Study In English  3
ENGLISH 207  World Literature in English  3
ENGLISH 213  Introduction To Drama  2-3
ENGLISH 214  Introduction To Fiction  3
ENGLISH 215  Introduction To Poetry  3
ENGLISH 216  The Craft of Creative Writing  3
ENGLISH 242  Women Writing/Women Reading  3
ENGLISH 270  Writing Tutor Training Seminar  3
ENGLISH 273  Science Fiction  3
ENGLISH 278  Asian American Literature  3
TCH-ED 201  Children's Literature  3

Major and Career Decision Making
UNIV 102  Career and Major Planning  2
UNIV 202  Next Steps in Career & Major Exploration  1

Numbers, Functions and Technology Mega-Major

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>DISC 100</td>
<td>Discourse I: Reasoning and Values (Speech and Writing)</td>
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<tr>
<td>DISC 200</td>
<td>Discourse II: Culture and Diversity (Writing and Speech)</td>
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</tr>
</tbody>
</table>

Foreign Language 9

Complex Problem Solving
ANCH 101  University College Seminar  3
Anchor II  3
UNIV 100  Academic Development (may be required)  1

Quantitative Reasoning
MATH 100  Intermediate Algebra (may be required depending on ALEKS Placement)  3
MATH 110  Precalculus Algebra (Focus B)  3

One of the following courses:
MATH 120  Precalculus (Focus B)  5
MATH 206  Brief Calculus And Matrix Algebra  3
MATH 210  Calculus I (Focus B)  4
or MATH 266  Accelerated Calculus I

STAT 235  Elementary Statistics (Focus B)  3

Interest Exploration Through UMKC General Education Focus and Critical Courses
ACCTNG 210  Introduction To Financial Accounting  3
ASTR 150  Astronomy: Motions of the Cosmos (Focus B)  3
ASTR 153L  Introductory Astronomy Laboratory  2
ASTR 155  Astronomy: Starlight and Star Stuff (Focus B)  3
CHEM 211 & 211L  General Chemistry I and Experimental General Chemistry I (Focus B)  5
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<tr>
<td>CHEM 212R</td>
<td>General Chemistry II and Experimental General Chemistry II (Focus B)</td>
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<tr>
<td>COMP-SCI 101</td>
<td>Problem Solving and Programming</td>
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<td>E&amp;C-ENGR 130</td>
<td>Engineering Graphics</td>
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<td>ECON 201</td>
<td>Introduction To Economics I (Focus B)</td>
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<td>ECON 202</td>
<td>Introduction To Economics II (Focus B)</td>
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<tr>
<td>GEOG 203</td>
<td>Introduction to Geographic Information Systems</td>
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<tr>
<td>or UPD 203</td>
<td>GIS For Urban Planning</td>
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<td>GEOLOGY 220</td>
<td>General Geology (Focus B)</td>
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<td>MIS 202</td>
<td>Computer Applications In Management</td>
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<tr>
<td>PHILOS 222</td>
<td>Foundations Of Logic and Scientific Reasoning (Focus B)</td>
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<tr>
<td>PHY-SCI 110</td>
<td>Foundations Of Physical Sciences I</td>
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<tr>
<td>&amp; 110L</td>
<td>and Foundations Of Physical Sciences, Laboratory I</td>
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<td>PHYSICS 210</td>
<td>General Physics I (Focus B)</td>
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<tr>
<td>PHYSICS 240</td>
<td>Physics For Scientists and Engineers I (Focus B)</td>
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**Major and Career Decision Making**

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<thead>
<tr>
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<tr>
<td>UNIV 102</td>
<td>Career and Major Planning</td>
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<tr>
<td>UNIV 202</td>
<td>Next Steps in Career &amp; Major Exploration</td>
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**Individual and Group Behavior Mega-Major**

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<tr>
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<tr>
<td>Foreign Language</td>
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**Complex Problem Solving**

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<tr>
<td>ANCH 101</td>
<td>University College Seminar</td>
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<td>Anchor II</td>
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<tr>
<td>UNIV 100</td>
<td>Academic Development</td>
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**Quantitative Reasoning**

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<tr>
<td>MATH 100</td>
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<td>MATH 110</td>
<td>Precalculus Algebra</td>
<td>3</td>
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<tr>
<td>or STAT 235</td>
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<td>Elementary Statistics</td>
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**Interest Exploration Through UMKC General Education Focus and Critical Courses**

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<tbody>
<tr>
<td>ANTHRO 103</td>
<td>Introduction To Cultural Anthropology (Focus C)</td>
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<tr>
<td>CJC 101</td>
<td>Introduction To Criminal Justice</td>
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<tr>
<td>CJC 215</td>
<td>Methods Of Criminological Research (Focus C)</td>
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<td>CJC 220</td>
<td>Theoretical Criminology</td>
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<td>CJC 240</td>
<td>Delinquency And Juvenile Justice (Focus C)</td>
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<td>CJC 280</td>
<td>Gangs and Crime (Focus C)</td>
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<td>CJC 282</td>
<td>Criminal Justice &amp; Criminology in Popular Media (Focus C)</td>
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<td>COMM-ST 140</td>
<td>Principles Of Communication</td>
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<td>ECON 150</td>
<td>Introduction To Labor Studies</td>
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<td>ECON 201</td>
<td>Introduction To Economics I</td>
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<td>ECON 202</td>
<td>Introduction To Economics II</td>
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<td>GEOG 200</td>
<td>World Geography I</td>
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<td>GEOG 202</td>
<td>World Geography II</td>
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<td>GEOG 210</td>
<td>Human Geography</td>
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<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
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<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
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<td>HISTORY 201</td>
<td>European History to 1600 (Focus A)</td>
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<tr>
<td>HISTORY 202</td>
<td>European History since 1600 (Focus A)</td>
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<tr>
<td>HISTORY 206</td>
<td>World History To 1450 (Focus A)</td>
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HISTORY 208  World History since 1450 (Focus A)  3
HLS 110  Personal Wellness (Focus A)  3
NURSE 252  Human Growth and Development  3
PHILOS 210  Introduction to Philosophy  3
POL-SCI 220  Introduction To Comparative Politics (Focus C)  3
POL-SCI 221  Introduction to Comparative Politics and Research (Focus C)  3
POL-SCI 230  International Relations (Focus C)  3
PSYCH 210  General Psychology (Focus C)  3
SOCIOL 101  Sociology: An Introduction (Focus C)  3
SOCIOL 201  Introduction To Social Psychology  3
SOCIOL 203  Social Problems (Focus C)  3
SOCIOL 211  Social And Psychological Development Through The Life Cycle  3
TCH-ED 151  Introduction to Urban Education Field Experience  2
UPD 260  History Of Planning And Urban Design  3
WGS 201  Introduction To Women’s, Gender, and Sexuality Studies (Focus C)  3

Health, Life Science and Our World Mega-Major

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
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<tr>
<td>ANCH 101</td>
<td>University College Seminar</td>
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<tr>
<td>UNIV 100</td>
<td>Academic Development (may be required)</td>
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Constitution
Choose one of the following:

<table>
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<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
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<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
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<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
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<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
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Quantitative Reasoning

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<tr>
<td>MATH 100</td>
<td>Intermediate Algebra (may be required depending on ALEKS Placement)</td>
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<tr>
<td>MATH 120</td>
<td>Precalculus</td>
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<tr>
<td>MATH 210</td>
<td>Calculus I (Focus B)</td>
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<tr>
<td>or MATH 216</td>
<td>Calculus for Biological Sciences</td>
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Interest Exploration Through UMKC General Education Focus and Critical Courses

Continuous enrollment in one or more of the following:

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>BIOLOGY 102</td>
<td>Biology and Living</td>
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<tr>
<td>&amp; 102L</td>
<td>and Biology and Living Laboratory (Focus B)</td>
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<tr>
<td>CHEM 115</td>
<td>Elements Of Chemistry I</td>
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<tr>
<td>&amp; 115L</td>
<td>and Elements Of Chemistry, Laboratory I (Focus B)</td>
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<tr>
<td>CHEM 211</td>
<td>General Chemistry I</td>
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<tr>
<td>&amp; 211L</td>
<td>and Experimental General Chemistry I (Focus B)</td>
</tr>
<tr>
<td>CHEM 212R</td>
<td>General Chemistry II</td>
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<tr>
<td>&amp; CHEM 212LR</td>
<td>and Experimental General Chemistry II (Focus B)</td>
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Health

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<td>and General Biology I Laboratory (Focus B)</td>
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<td>BIOLOGY 109</td>
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<td>&amp; 109L</td>
<td>and General Biology II Laboratory (Focus B)</td>
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<td>Course Code</td>
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<td>BIOLOGY 202</td>
<td>Cell Biology</td>
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<td>BIOLOGY 206</td>
<td>Genetics</td>
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<td>CHEM 206</td>
<td>Human Nutrition (Focus B)</td>
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<td>HLSC 110</td>
<td>Personal Wellness</td>
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<td>HLSC 120</td>
<td>Anatomy &amp; Physiology I</td>
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<tr>
<td>HLSC 160</td>
<td>Anatomy and Physiology II</td>
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<tr>
<td>LS-PHYS 217</td>
<td>Human Physiology</td>
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<tr>
<td>LS-MCRB 112</td>
<td>Microbiology and Living</td>
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**Our Environment**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>CHEM 160</td>
<td>Chemistry, Society, And The Environment and Laboratory For Chemistry, Society, And The Environment</td>
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<tr>
<td>&amp; 160L</td>
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<tr>
<td>ENV-DSN 110</td>
<td>The Meaning Of Architecture (Focus A)</td>
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<td>ENV-SCI 110R</td>
<td>Understanding the Earth: Introduction to Environmental Science and Laboratory</td>
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<tr>
<td>&amp; ENV-SCI 110L</td>
<td>Understanding the Earth Laboratory (Focus B)</td>
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<tr>
<td>ENV-SCI 210</td>
<td>Issues in Environmental Science (Focus B)</td>
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<tr>
<td>ENV-SCI 220</td>
<td>Ecosystem Science for Decision Makers</td>
<td>3</td>
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<td>GEOLOGY 220</td>
<td>General Geology (Focus B)</td>
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<tr>
<td>GEOLOGY 250L</td>
<td>Field Methods in Earth and Environmental Science (Focus B)</td>
<td>3</td>
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<tr>
<td>PBHL 158</td>
<td>Public Health Principles</td>
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<td>UPD 260</td>
<td>History Of Planning And Urban Design</td>
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<tr>
<td>URBAN ST 100</td>
<td>Neighborhood And Community Development</td>
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COURSE OFFERINGS

Undergraduate Course Offerings

Accounting (ACCTNG)

Courses

ACCTNG 210 Introduction To Financial Accounting Credits: 3
An overview of basic concepts and terminology associated with reporting financial information to parties outside of an organization. This course requires students to take an accompanying lab that meets one day a week.
Prerequisites: MATH 110 (or ALEKS score of 61 or higher) and sophomore standing.

ACCTNG 211 Introduction To Managerial Accounting Credits: 3
An introduction to the use of cost accounting concepts and information in managing the activities of a business.
Prerequisites: ACCTNG 210 and sophomore standing.

ACCTNG 306 Introduction to the Accounting Profession and Procedures Credits: 3
A study of the profession of accounting, the accounting process, and tools used in implementing that process.
Prerequisites: ACCTNG 210 and sophomore standing.

ACCTNG 307 Cost Management Credits: 3
A study of the principles and techniques of cost accounting with emphasis on the structure of cost accounting systems and the processing, summarizing and reporting of cost information. Topics include various issues relevant for manufacturing and service organizations, and introduction of situations that require the application of cost information to managerial settings.
Prerequisites: ACCTNG 211 and junior standing.

ACCTNG 310 Intermediate Accounting I Credits: 3
A study of theory and application of external corporate reporting. The course covers a variety of financial accounting issues including assets, liabilities, revenue recognition, and accounting change analysis. Publications and pronouncements of the accounting professions are emphasized where applicable.
Prerequisites: ACCTNG 306 and Bloch student.

ACCTNG 311 Intermediate Accounting II Credits: 3
Continued study of intermediate accounting. The course covers a variety of financial accounting issues including corporate equities, income taxes, pensions, other post-employment benefits, leases, and the statement of cash flows. Publications and pronouncements of the accounting profession are emphasized where applicable.
Prerequisites: ACCTNG 310.

ACCTNG 350 Accounting Systems And Controls Credits: 3
This course examines a number of systems employed to process accounting information, the internal control activities typically used in each system and associated documentation techniques.
Prerequisites: ACCTNG 310.

ACCTNG 360 Accounting Research and Communications Credits: 3
A study of solving accounting issues by conducting research in the professional literature and communicating the results of that research to users.
Prerequisites: ACCTNG 310 and MGT 301 or MGT 301A.

ACCTNG 405 Auditing Credits: 3
A study of how the auditor determines the nature and amount of evidence that should be accumulated considering the unique aspects of an engagement, as well as some idea of how that evidence is evaluated in the context of a financial audit.
Prerequisites: ACCTNG 311 and ACCTNG 350.

ACCTNG 411 Becker CPA Review Credit: 1
Structured review of materials for the financial, auditing, business environment, and regulatory sections of the CPA examination.

ACCTNG 412 Introduction to Income Taxation Credits: 3
An examination of the theory, practice, and research methodology of taxation as applied to individuals and business entities.
Prerequisites: ACCTNG 211.

ACCTNG 418 Data Analytics for Accounting Credits: 3
Data Analytics is an investigation of the stories that large data stores can tell if only we know how to unravel them. As such, this course will examine big data sources from both a data-mining and a hypothesis-testing approach.
Prerequisites: ACCTNG 405.
ACCTNG 420 Advanced Accounting Credits: 3
A study of the accounting for business combinations and the preparation of consolidated financial statements.
Prerequisites: ACCTNG 311.

ACCTNG 421 Governmental/Not-For-Profit Accounting Credits: 3
An overview of accounting for state and local governments and not-for-profit entities. Pronouncements of the accounting profession are emphasized where applicable.
Prerequisites: ACCTNG 311.

ACCTNG 464 Principles of Internal Auditing Credits: 3
A study of how the internal auditor determines the nature and amount of evidence that should be accumulated considering the unique aspects of an engagement, as well as some idea of how that evidence is evaluated in the context of a financial audit.
Prerequisites: ACCTNG 311 and ACCTNG 350.

ACCTNG 465 Advanced Accounting Systems Credits: 3
An in-depth analysis of various contemporary issues in accounting information systems.
Prerequisites: ACCTNG 311.

ACCTNG 470 Fraud Auditing Credits: 3
An examination of the elements of fraud and the fraud auditing process.
Prerequisites: ACCTNG 405 or equivalent.

ACCTNG 482 Global Accounting Challenge Credits: 3
An international simulation of the challenges that exist when global teams address international accounting issues. Requires International travel.

ACCTNG 487 Special Topics Credits: 3
Special topics in accounting.

ACCTNG 490 Becker CPA Review Funded Credit: 1
Structured review of materials for the Financial, Auditing, Business Environment and Regulatory sections of the CPA examination.
Prerequisites: Students must be within one year of exam eligibility.

ACCTNG 491 Becker CPA Review Partial Funding Credit: 1
Structured review of materials for the Financial, Auditing, Business Environment and Regulatory sections of the CPA examination.
Prerequisites: Student must be within one year of exam eligibility.

ACCTNG 492 Becker CPA Review Self Funded Credit: 1
Structured review of materials for the Financial, Auditing, Business Environment and Regulatory sections of the CPA examination.
Prerequisites: Student must be within one year of exam eligibility.

ACCTNG 496 Internship: Accounting Credit: 1
An opportunity for students to integrate their academic studies via employment with a business/organization in the community. Internship coursework is evaluated on a credit/no credit basis.

ACCTNG 497 Special Topics In Accounting Credits: 1-3
Study and research in accounting areas of special student interest, under individual faculty supervision and guidance.
Prerequisites: Departmental consent.

Anchor (ANCH)

Courses
ANCH 101 University College Seminar Credits: 3
The purpose of ANCH 101 is to help new students make a successful transition to the University of Missouri-Kansas City, both academically and personally. This course aims to help students develop and apply critical thinking skills (Interdisciplinary and Innovative Thinking and Valuing and Reasoning), engage in the curricular and co-curricular life of the university, articulate to students the expectations of the University and its faculty, understand the value of a liberal education in the 21st century, and continue to clarify their purpose, meaning, and direction. First-time, year-one students admitted into the University College will enroll in ANCH 101.
Co-requisites: DISC 100.

ANCH 102 Introduction to Urban Studies Credits: 3
Introduction to Urban Studies is a lecture and discussion course that provides the undergraduate student with an overview of the interdisciplinary field of urban social science. The student who successfully completes this course will have a broad understanding of the major issues, vocabulary, basic methods, and prominent scholars in urban studies. We will explore current events of relevance, including the opportunities and problems facing major cities in the United States including Kansas City.
Co-requisites: DISC 100.
ANCH 103 Muse Credits: 3
This course merges a variety of academic platforms and student activities so that collaboration among disciplines becomes a natural, logical solution to academic, professional, and performing arts challenges. Course content is derived from music history as it relates to Kansas City in the 21st century through examining the ethics of creating the canon. Activities are drawn directly from music history to achieve understanding in Human Values and Ethical Reasoning as they relate to our community.
Co-requisites: DISC 100.

ANCH 104 The Countercultural Experience Credits: 3
This interdisciplinary course examines countercultures, groups whose shared values and practices set them apart from mainstream culture. Students will explore how and why countercultures form, transform and decline; how they reason out, articulate and practice their shared cultural values; their function as distinctive discourse communities; and how individual members negotiate their identities and values within and between cultural groups.
Co-requisites: DISC 100.

ANCH 105 The Value of Beauty Credits: 3
This class surveys European aesthetics, defining what counts as beautiful and the roles art plays in society.
Co-requisites: DISC 100.

ANCH 106 Money, Medicine and Morals Credits: 3
This course will improve the student’s understanding of and ability to critically evaluate complex moral dilemmas in medicine, business, law and other professions. Students will learn critical thinking, arguing, writing and presentation skills through examining moral issues for professionals. Guest speakers will introduce students to practical aspects of professional life.
Co-requisites: DISC 100.

ANCH 107 Global Inequality: Slavery in Historical and Archaeological Perspective Credits: 3
Using archaeological and historical evidence from around the world, including the state of Missouri and the Kansas City region, students will explore the conditions which gave rise to inequality. By exploring slavery in various forms, students will understand its historical development, as well as its continued impact on society today.
Co-requisites: DISC 100.

ANCH 108 Surfing the Matrix: Keeping Your Head Above Water in a Sea of Information Credits: 3
Students will analyze, interpret and/or reconstruct human events, experiences, actions and interactions, through case studies that will help them to understand the principles of value and civic duty in a wide range of settings. Students will be able to identify ethical problems in business, apply critical thinking concepts to better synthesize their understanding of ethical issues and moral reasoning, and be able to articulate implications and consequences that emerge from critical thinking constructs when filtering, analyzing and synthesizing multiple variables.
Co-requisites: DISC 100.

ANCH 109 Education and Urban Society Credits: 3
This course is designed to introduce students to the social and philosophical issues in urban education and will include an emphasis on culture, race, class, and ethnicity as they relate to schooling in urban America. Students will engage in thinking and rethinking problems, issues and solutions that complicate our collective understanding of the intersection of urban society and education.
Co-requisites: DISC 100.

ANCH 150 Computing and Engineering in Society Credits: 3
This course provides a broad and general introduction to the practice and history of engineering and computing fields; their impact on humanity and society and their relationship to the ecosystem, professionalism and ethics. The course introduces important concepts relevant to the fields of engineering and computing, including the engineering approach to solving problems, communications and computations, ethics, environmental responsibility and teamwork. Particular attention will be paid to how technology, engineering and pervasive computing impacts society. The course also introduces academic skills and strategies for success as a student and in a professional career.
Co-requisites: DISC 100.

ANCH 199 Anchor I Special Topics Credits: 3
Anchor I Special Topics

ANCH 201 Race in American Film Credits: 3
This course examines representations of race and ethnicity in American film from the silent era onward in mainstream and countercultural traditions. It explores how social, political, and economic conditions contribute to constructions of race and ethnicity.
Prerequisites: Anchor I, DISC 100.
Co-requisites: DISC 200.
ANCH 202 Crossing Boundaries Credits: 3
This course examines the Latina/o immigrant experience from the immigrants’ diverse origins in the Americas to the communities they shape. Students will examine how empire, war, and economic integration have pushed people to migrate and how work, family, and immigration policy have shaped patterns of migration and settlement as well as integration and exclusion.
**Prerequisites:** DISC 100 and Anchor I.

**Co-requisites:** DISC 200.

ANCH 204 Women in the Ancient World Credits: 3
This course focuses on the history, representation, literature, social lives, and political roles of women in ancient civilization including Egypt, Mesopotamia, the Biblical World, Greece, and Rome. It integrates methodologies from history, art history and archaeology, literary studies, and women's studies.

ANCH 205 Self in a Multicultural Society Credits: 3
This course will focus on what it means for the individual to live in a multicultural, urban, and increasingly global society. Students will examine their own cultural identity, including values and worldviews as well as assumptions and biases regarding others' diversity. In addition, the course will focus on learning about different cultures and issues associated with urbanism, globalization, cultural conflicts and social advocacy.

ANCH 206 Queer in the City/An Introduction to LGBT Studies Credits: 3
This course introduces queer theory within the context of gender studies and urban studies. We will read, discuss, and react to classic text in queer theory, lesbian and gay studies, and sexuality and space studies. There will be an emphasis on finding "otherness" within everyday spaces, places, texts, and discourses.
**Prerequisites:** Anchor I and DISC 100.

**Co-requisites:** DISC 200.

ANCH 207 The Classical Mediterranean World Credits: 3
This course examines the history, literature, and culture of Ancient Greece and Rome in the context of the Mediterranean world, from its origin until the Barbarian invasion. Students will read poetry, philosophy, history, rhetoric, and letters from primary text sources and they will study material evidence such as architecture, graffiti, and physical objects as representative survivals of these cultures.
**Prerequisites:** Anchor I, DISC 100.

**Co-requisites:** DISC 200.

ANCH 208 Women in the Medieval World Credits: 3
This course offers an interdisciplinary approach to the study of women during the Middle ages (ca. 600-1500), focusing on the different cultures of Europe. Arranged around a series of themes, the cluster will read a variety of documentary and literary texts to investigate the ways in which women experienced agency, were depicted and imagined, and acted within the social and cultural contexts of the era.
**Prerequisites:** Anchor I, DISC 100.

**Co-requisites:** DISC 200.

ANCH 209 World Cultures, Histories and Ideas Credits: 3
This interdisciplinary course will explore the cultures, histories, and ideas of one or more regions of the world as well as dynamics of interaction between them. Students will be exposed to a very wide range of disciplinary approaches to this topic and learn how to engage critically in an interdisciplinary dialogue within this field. Topics will vary depending on the instructors.
**Prerequisites:** Anchor I, DISC 100.

**Co-requisites:** DISC 200.

ANCH 210 American Cultures, Histories & Ideas Credits: 3
This interdisciplinary course will explore the cultures, histories, and ideas of the United States. Students will be exposed to a very wide range of disciplinary approaches to this topic and learn how to engage critically in an interdisciplinary dialogue within this field. Topics will vary depending on the instructors.
**Prerequisites:** Anchor I, DISC 100.

**Co-requisites:** DISC 200.

ANCH 211 Cities of the World Credits: 3
This course will focus on urban issues to help students develop global perspectives. Urbanization has been a global phenomenon, and more than half of the world population lives in urban areas. Students will learn past, present and future urban issues and challenges on the global scale and about how cities of the world have coped and will cope with these issues and challenges.
**Prerequisites:** Anchor I, DISC 100.

**Co-requisites:** DISC 200.
ANCH 212 Critical Issues in Women's, Gender, and Sexuality Studies Credits: 3
This class is an interdisciplinary course that will examine critical issues in women's, gender and sexuality studies by focusing on the intersections of gender, race, class, sexuality, and social context. Through their study of these intersections, students will become more sensitive to the impact of social structures on gender and the experiences of women and men.

Prerequisites: Anchor I, DISC 100.

Co-requisites: DISC 200.

ANCH 213 Empire Credits: 3
This is an interdisciplinary, team-taught course designed to teach students ways to think about the complexities of human cultures, past and present, helping them examine how imperialism continues to shape contemporary understandings of personal, institutional, and cultural identities (both of selves and others). The course analyzes global cultures with a focus on the economic, environmental, political and social consequences of specific imperial regimes and the ongoing impact of these regimes on particular groups that continue to live with the legacies of empire.

Prerequisites: Anchor I, DISC 100.

Co-requisites: DISC 200.

ANCH 214 European Cultures, Histories & Ideas Credits: 3
This interdisciplinary course will explore the cultures, histories, and ideas of a particular region of Europe. Students will be exposed to a wide range of disciplinary approaches to this topic and learn how to engage critically in an interdisciplinary dialogue within this field. Topics will vary depending on the instructors.

Prerequisites: Anchor I, DISC 100.

Co-requisites: DISC 200.

ANCH 215 Crossing Boundaries: The Latina/o Immigrant Experience Credits: 3
This course examines the Latina/o immigrant experience from the immigrants' diverse origins in the Americas to the communities they shape. Students will examine how empire, war, and economic integration have pushed people to migrate and how work, family, and immigration policy have shaped patterns of migration and settlement as well as integration and exclusion.

Prerequisites: DISC 100 and Anchor I.

Co-requisites: DISC 200.

ANCH 216 Intersections of Race, Class, Gender, and Sexuality Credits: 3
This course explores the complex, interconnected dynamics of and between race, (social) class, gender and human sexuality. As an interdisciplinary course, it explores how these concepts are understood holistically and how they are constructed and positioned within US society. This class emphasizes investigations, via critical thinking, about how these different systems of inequality interact with and through each other, while also being sensitive to different theoretical and methodological frameworks from several disciplines employed to analyze those systems.

Prerequisites: Anchor I, DISC 100.

Co-requisites: DISC 200.

ANCH 218 Introduction to Ethnic Studies Credits: 3
An interdisciplinary course that uses a comparative perspective to examine the history, social issues, and cultural productions of African Americans, Arab Americans, Asian Americans, Latina/os, and Native Americans. Students will be introduced to key concepts and methods used in the study of race in an American context.

Prerequisites: Anchor I, DISC 100.

Co-requisites: DISC 200.

ANCH 218 - MOTR LITR 105: Multicultural Literature

ANCH 220 We Shall (All) Overcome: Civil Rights Movements in Contemporary America Credits: 3
This course examines the fight for civil rights in America in the 20th and 21st centuries in order to emphasize the importance of culture and diversity in American society. Using interdisciplinary methods, the course addresses various local and national movements among the African American, Latino/a, LGBT, and Native American communities, as well as the women's rights movement.

Prerequisites: Anchor I, DISC 100.

Co-Requisites: DISC 200 (or satisfy DISC 200 with credit from two of ENGL 110, ENGL 225, or COMM-ST 110).

ANCH 299 Anchor II Special Topics Credits: 3
Anchor II Special Topics.

Prerequisites: Anchor I and DISC I.
ANCH 301 Environmental Sustainability Credits: 3
This course will introduce the concept of environmental sustainability and review examines how sustainability might work at the individual, neighborhood, state, nation and global scales. Students will participate in some form of community engagement on sustainability as well as reflect upon how their own practices impact the environment.
**Co-requisites:** DISC 300.

ANCH 302 Archaeology of Ancient Disasters Credits: 3
Remarkable human achievements are revealed by archaeological research, but the human past was frequently shaped as well by disasters of natural and human origin. Drawing on case studies that include data from the geosciences, archaeological excavations, and historical sources, this class examines how earth processes, the biosphere, and human cultural behavior were all sources of catastrophe.
**Co-requisites:** DISC 300.

ANCH 303 Film Adaptation Credits: 3
The class will explore the process of adapting both fiction and non-fiction literary works into motion pictures. Students will examine the original literary source, then the interim screenplay and finally the completed motion picture. This class will also explore the practical aspects of creating a film adaptation in Kansas City. Students will interact with Kansas City area film professionals and learn about the practical aspects of filming and exhibiting films in Kansas City.
**Prerequisites:** Anchor II, DISC 200.
**Co-requisites:** DISC 300.

ANCH 304 Telling Stories: History, Memory, and American Life Credits: 3
How we remember the past is shaped not only by academic historians but also by collectors, curators, librarians, archivists, artists, architects, urban planners and ordinary people. This course will invite students to participate in the shaping of history and memory through civic engagement in their community. Students will use resources available in local institutions to raise critical awareness about historical issues relevant to the present.
**Prerequisites:** Anchor II, DISC 200.
**Co-requisites:** DISC 300.

ANCH 305 The Artist in Society Credits: 3
This interdisciplinary anchor III course explores the various roles of artists in society. Using historical examples and building on current best practices, students will engage critically with the interplay between artistic pursuits, social justice, and community engagement.
**Prerequisites:** Anchor II, DISC 200.

ANCH 306 From Bench to Bedside: Translational Research Credits: 3
This course explores the spectrum between basic biological research and bedside clinical practice, delving into the topics “what is translational research?” and “how does a drug get to the market”. By engaging with people from the community involved at all levels of translational research, students will gain an appreciation for the civic issues behind medical research, the interdisciplinary nature of research, and the part that Kansas City institutions play in regional life and health sciences.
**Prerequisites:** Anchor I, Anchor II.
**Co-Requisites:** DISC 300.

ANCH 307 Frauds, Myths and Mysteries in Archaeology Credits: 3
Using archaeological hoaxes, myths, and mysteries from around the world – including local and regional examples - students will use science to make good judgments about information they receive in today's world. This course will demonstrate how science approaches questions about human antiquity and will show where pseudoscience falls short.
**Co-requisites:** DISC 300.

ANCH 308 Ethical Issues in Computing & Engineering Credits: 3
Societal and ethical obligations of computer science, IT, and electrical/computer engineering practice. Topics include ethical obligations of professional practice, electronic privacy, intellectual property, software and system security and reliability, and whistle-blowing. This course teaches the principles of ethical analysis and how technology, law, and ethics interact in society, to help the graduate confront and deal with the ethical challenges that arise in professional practice.
**Co-requisites:** DISC 300.
ANCH 309 Mechanical Design Synthesis I Credits: 3
Introduction to and application of the Engineering Design Process including: product development, needs identification, benchmarking, information gathering, intellectual property, concept generation, creativity methods, concept selection, professional, ethical and legal responsibilities, and computer-aided design and rapid prototyping applications. A comprehensive design project requiring community engagement and an interdisciplinary design approach is required for each student. Recommended preparation: MEC-ENGR 130 or MEC-ENGR 131 or comparable non-engineering 3D CAD course.
Prerequisites: Anchor II.
Co-Requisites: DISC 300.

ANCH 310 Innovation and the Aging Population Credits: 3
Students in this course will explore the problems, challenges, and opportunities of an aging urban population and the role of the University in that context.
Prerequisites: ANCH I (Reasoning and Values) or equivalent, ANCH II (Culture and Diversity) or equivalent.
Co-requisites: DISC 300 (Civic and Community Engagement).

ANCH 311 Civil Engineering Capstone Design II Credits: 3
Comprehensive and realistic design project for area municipalities. Design choices and their effect upon the environment. Design constraints include constructability, minimization of environmental impact and cost-effectiveness. Managerial and professional aspects of design practice. Demonstrate understanding of engineering ethics. Includes interdisciplinary, community engagement within the context of civil engineering practice. Recommended preparation: CIV-ENGR 411.
Prerequisites: ANCH II.
Co-requirements: DISC 300.

ANCH 314 Interdisciplinary Community Oral Health Field Experiences Credits: 3
Students will practice skills/principles learned in Anchor I-II by participating in interdisciplinary community projects and clinical activities targeting Kansas City's urban and surrounding rural environments. Students will use strategies of assessment, program planning, implementation and evaluation to improve existing, develop new, and reflect on service projects' purposes, methods, and consequences. Major emphases include team collaboration/leadership of civic action, community programming to enact measurable and meaningful change, respectful communication considering health literacy and associated disparities among patients and health care providers, to express ideas supporting wellness through improved oral health.
Prerequisites: Anchor I, Anchor II.

ANCH 317 Science, Technology, and Society Credits: 3
This course examines how practitioners of science and innovators of technology have engaged with society throughout the past and up to the present. The central question that will frame our examination of their activities is, “What is civic engagement?” Through readings and research, we will examine how science and technology have influenced public policy and thus democracy itself. Students will take advantage of the close proximity of the Linda Hall Library to work with professionals at this unique repository of scientific and technological source material.
Prerequisites: ANCHOR I, ANCHOR II.
Co-requisites: DISC 300.

ANCH 318 From Oil Gushers to Fracking: A History of American Petroleum Credits: 3
This course asks students to consider civic engagement by studying how the history of oil production and consumption has influenced people's relationships to their communities and environments at the local, regional, and global scale. Bringing together the fields of geology and history, this interdisciplinary course explores how carbon fuels shapes life on the planet. Students will use civic engagement as a lens to examine how the use of fossil fuels has impacted societies and to learn how their actions as individuals and community members presently leave carbon footprints.
Prerequisites: ANCHOR I, ANCHOR II.
Co-requisites: DISC 300.
ANCH 319 Immersion in Urban Communities Credits: 3
This course is an experiential course where in much of the learning occurs through the student’s interaction with their community and the student’s thoughtful reflection on those activities. This course provides an in-depth examination into both the evolution of marginalized communities and dynamics of community building in inner cities, with special emphasis on Kansas City, Missouri. Students will be expected to explore their own role as an active citizen of their community through volunteerism and participation at civic events.
Prerequisites: ANCHOR II.

Co-requisites: DISC 300.

ANCH 320 Visual Culture and Civic Engagement Credits: 3
In this course students explore civic engagement through visual culture as both consumers and producers of information, and through both historical and contemporary examples. Areas of study include political communication and propaganda, public art, infographics and data visualization, performance, signage, monuments and mass media.
Prerequisites: Anchor II.

ANCH 399 Anchor III Special Topics Credits: 3
Anchor III Special Topics

ANCH H199 Anchor I Special Topics Credits: 3
Anchor I Special Topics

ANCH H214 European Cultures, Histories & Ideas Credits: 3
This interdisciplinary course will explore the cultures, histories, and ideas of a particular region of Europe. Students will be exposed to a wide range of disciplinary approaches to this topic and learn how to engage critically in an interdisciplinary dialogue within this field. Topics will vary depending on the instructors.
Prerequisites: Anchor I, DISC 100.

Co-requisites: DISC 200.

ANCH H298 Great Ideas: The Idea of Culture Credits: 3
Course will follow the evolution of ideas of culture from Classical Antiquity to the present, discussing different notions of culture across the world, whether anthropological, political or otherwise. We will begin by considering how culture is opposed to nature, and then move to the idea of comparative cultural anthropology in the Enlightenment, and finish with discussing current ideas of “cultural technologies.” Culture has also been opposed to technology (particularly in old European ideas of high culture), yet it increasingly depends on material mediation, whether through book-printing, the public institutions of newspaper and symphony orchestra, or radio, film and TV.
Co-requisites: DISC 200.

ANCH H299 Anchor II Special Topics Credits: 3
Anchor II Special Topics

ANCH H397 Public Urban Education Credits: 3
Is public urban education a “wicked problem,” an unparalleled opportunity, or a complex challenge that can be met during the twenty-first century in the United States? This interdisciplinary course will interrogate that question by surveying the history of public urban education, by considering contemporary educational issues, and by sending students into public urban schools to make their own observations and recommendations. Students will volunteer at least twelve hours during the semester at designated Kansas City schools.
Co-requisites: DISC H300.

ANCH H398 CITYLAB: ADDRESSING URBAN POLICY AND PUBLIC HEALTH THROUGH COMMUNITY ENGAGEMENT Credits: 3
This CITYLAB course engages the undergraduate student as an active participant in the life of an Urban-Serving University through the research and community partnerships developed through a collaborative, community-based process. The purpose of the course is to familiarize students with community-based participatory research (CBPR), to develop a community-based project, and to experience the ethics of civic and community engagement firsthand. The purpose of the CITYLAB approach is to: a) Identify and tackle a complex urban challenge that impacts people’s everyday lives and b) Look at urban problems in new ways through a university-community partnership.
Prerequisites: Anchor 1 and Anchor 2 or equivalent.

Co-requisites: DISC 300.

ANCH H399 Anchor III Special Topics Credits: 3
Anchor III Special Topics

Anthropology (ANTHRO)
Courses

ANTHRO 103 Introduction To Cultural Anthropology Credits: 3
An introduction to culture and the basic concepts of anthropology. Topics include kinship, language, and cultural change.
ANTHRO 103 - MOTR ANTH 201: Cultural Anthropology

ANTHRO 300 Special Topics in Anthropology Credits: 1-3
Each time this course is offered, a different area of anthropology, to be announced, will be examined. Prerequisite(s); None.

ANTHRO 302 Social Stratification Credits: 3
The distribution of power, privileges and prestige are examined in a historical and comparative perspective. The process whereby distribution systems develop, become institutionalized, and become transformed are analyzed.

ANTHRO 303CN Cluster Course: Terrorism, Civil War and Trauma Credits: 3
This interdisciplinary course examines the modern experience of terrorism and civil war in the light of art, film, history, literature, and philosophy. It explores a number of traumatic events, historic and contemporary, challenging us to think about such contemporary issues as violence and identity formation, civil rights and state-sponsored terrorism, pacifism and patriotism, resistance and collaboration, fundamentalism and fascism, neo-colonialism and anti-imperialism.
Cross Listings: ENGLISH 300CN.

ANTHRO 305 Language and Culture Credits: 3
This course is designed to familiarize students with the basic objects, aims, and methods of linguistic anthropology. Students will acquire this familiarity by studying both theoretical and ethnographic articles that focus on some of the major areas of concern within the field including: the evolution of human language, linguistic particularity and universality, the relationship of language to thought, structuralism and semiotics, trope theory, language and emotion, sociolinguistics, the development of writing systems, and language conservation and change.

ANTHRO 306 Culture, Emotion, and Identity Credits: 3
This course introduces students to some of the key theoretical perspectives and debates within the field of psychological anthropology. By drawing upon cross-cultural studies of emotion, personhood, sexuality, illness, and consciousness it seeks to understand some of the ways that culture and society influence human psychology and experience.

ANTHRO 308 The Social Life of Things Credits: 3
This course examines the connections between people and things. It explores how social relationships are created and changed through the use and exchange of objects, and how objects themselves take on particular meanings and values in these processes.

ANTHRO 322 Race And Ethnic Relations Credits: 3
The nature, origin and dynamics of ethnic and race relations in the U. S. and other societies. Specific attention will be given to the historical and contemporary contexts of prejudice, discrimination and confrontation.

ANTHRO 324 Diversity And You Credits: 3
This course will examine diversity from the perspectives of race, ethnicity, class and gender. Emphasis will be placed on the impact of racism, classism and sexism on interpersonal relationships and strategies to encourage diversity in schools, neighborhoods, and the work place. Students may also enroll in "directed research" in conjunction with his course.

ANTHRO 326 Consumer Society Credits: 3
This course explores the emergence of Consumer Society as both a sociohistorical development and as an object of social scientific inquiry. Students will explore how the study of Consumer Society has been animated by different scholarly questions, debates, and analytic approaches.
Cross Listings: SOCIOL 326.

ANTHRO 327 US Government's Indian Policies: Practices Of A Colonizing Nation Credit: 1
This class will convey information about the implementation of US Government policies, from treaty making, establishing reservations, removing, confronting tribes militarily, and abolishing reservations through allotment resulted in consequences detrimental to tribal welfare. The colonization process created ramifications and consequences that Indian people contend with to this day. This class will provide a historical overview of the consequences associated with political, social, and economic processes that divested Indian people of control over their lives and land they originally lived on.
Cross Listings: SOCIOL 327.

ANTHRO 328 Body and Society Credits: 3
Body and Society is an interdisciplinary and comparative approach to the study of the body as the subject and object of social processes. Interdisciplinary approaches to topics such as meaning, ritual, performance, and practice will provide a framework for classical as well as contemporary explorations of bodily representation and experiences across a variety of cultural contexts.
Prerequisites: ANTHRO 103.
ANTHRO 329 The Imagery Of The American Indian In Film Credit: 1
This course will trace the imagery of the American Indian used by film makers through the years and how this has played a role in reinforcing certain inaccurate perceptions of American Indian cultural, social, and economic life. The course examines the sociological implications created by persistently showing misrepresented images of American Indians. The goal is to measure and compare the reality of American Indian life (values, traditions, and beliefs) with the images created by film makers from the early years of the 20th century to the present.

Cross Listings: SOCIOL 329.

ANTHRO 331 Urban Anthropology Credits: 3
A course designed to apply anthropological methods to the study of various urban environments. The approach to the subject is comparative, seeking to spell out those features of the urban setting which vary from culture to culture as well as those which are common to all.

ANTHRO 339 American Indian Leaders: Past And Present Credit: 1
This course will examine the definition of leadership as it relates to American Indian issues. Consideration will be given to the nuances of leadership by examining the social, cultural, economic, and political situations that gave cause for particular individuals to assume roles of leadership. The course will compare and contrast the notions of leadership within American Indian ranks with those practiced by non-Indian leaders. It will trace the evolving nature of leadership within tribal nations and American Indian communities from past to present, as well as looking at Indian leadership roles in time of war and peace. Lives of the major characters of American Indian historical record will be reviewed, such as Geronimo, Crazy horse, Sitting Bull, Osceola, Tecumseh, Pontiac, Black Hawk, Quannah Parker, and Captain Jack.

Cross Listings: SOCIOL 339.

ANTHRO 340R Social Change Credits: 3
Examines the key dimensions that bring about change in societies, including revolutions and evolutionary processes. Attention is given to the global context of social change, as well as the role of social actors and social movements.

Cross Listings: SOCIOL 340R.

ANTHRO 347 The American Indian Image: Stereotype Vs. Reality Credit: 1
This class will take a historical, sociological, and cultural approach to review how society at large views American Indians. The course will trace the origin and continued use of American Indian stereotyped views, and assess the sociological and psychological complications that result when judging Indians solely on stereotyped imagery. The course will review the historical content of American Indian life as portrayed in early plays, films, and newspaper accounts and compare these stereotyped images with the reality of American Indian life by providing a depiction of a series of historical events that will offer a more balanced and accurate consideration for American Indian life past and present.

Cross Listings: SOCIOL 347.

ANTHRO 348 Latinx Immigrants, Migrants, and Refugees in the U.S. Credits: 3
This course addresses the culture of societies of U.S. citizens, immigrants, and refugees of Latin American heritage living in the U.S. The course emphasizes recent anthropological, historical, cultural, and sociological studies.

ANTHRO 358 Culture and Society Credits: 3
This course examines the "culture concept" at the heart of the contending theories of society, which is used to describe a society or way of life, a whole social order, or particular aesthetic styles and objects. The course links these various topics together in a concluding section on culture in the age of the Internet and globalization.

ANTHRO 373 Anthropology of Religion Credits: 3
This course explores the ways anthropologist have gone about studying religion from the opening decades of the 20th century to present. The course introduces students to the diversity of human religious expression and experience through anthropological literature and to the diversity of anthropological expression especially as it has been revealed in social scientific studies of religious life. The course is designed to generate a critical dialogue about the special role that religion has played in the ongoing anthropological engagement with "other" societies and cultures over time.

ANTHRO 381 Archaeological Resources Management Credits: 3
This class examines contemporary issues managing archaeological resources. The class is intended for students seeking work in Cultural Resources Management (CRM), those already working CRM, or student anthropology, environmental studies, geology, geography, public administration and other fields likely to deal with archaeological and historical resources in a research or employment setting. This class does not require a background in archaeology.

Cross Listings: GEOLOGY 407.

ANTHRO 382 Archaeological Field Survey Methods Credits: 3
This class offers instruction in the basic skills required to conduct field surveys in archaeology and other geosciences disciplines. In the classroom, students learn about the development of archaeology as a scientific discipline and how to recognize some of the basic field data sought by archaeologists. Students learn about mapping and land navigation techniques. The field phase of instruction includes visits to archaeological sites in the region.

Cross Listings: GEOLOGY 408.
ANTHRO 383 Field School in Archaeology Credits: 3
This class offers students an opportunity to attend a field school in archaeology. Students will be taught how to: design archaeological research, set-up excavation, keep a wide range of excavation records, make maps and drawings, take photographs related to excavation problems, identify and receiver a broad spectrum of artifact and faunal remains, collect samples for specialized analysis and use a wide range of excavations tools. This course will also introduce students to recording and analyzing excavated materials in the archaeological laboratory. Cross Listings: GEOLOGY 409.

ANTHRO 384 North American Prehistory Credits: 3
This class offers instruction in the archaeological survey of prehistoric North America from the Arctic to northern Mexico. The course outlines cultural developments within this region from the peopling of the Americas near the end of the last Ice Age to the arrival of Europeans over 10,000 years later. The diversification of Native American societies across this time span is examined in relation to social and environmental challenges, including the transformation of hunter-gatherer groups into chiefdoms and complex agricultural societies. Cross Listings: GEOG 457.

ANTHRO 385 Archaeology as Anthropology: The Development of Human Societies Credits: 3
This class examines the development of archaeology as a distinctive branch of anthropology, and archaeology's role in a centuries-long debate about the causes of cultural variation and the development of human societies. This class examines how the Enlightenment, colonialism, the geological discovery of Deep Time and the Darwinian Revolution not only give rise to anthropology and archaeology, but launched an enduring debate about how and why we study cultural behavior.

ANTHRO 386 Introduction to Prehistoric and Classical Archaeology Credits: 3
An introduction to archaeological research methods that traces human origins and cultural development from the earliest fossil evidence to the threshold of written history and civilization. This class emphasizes the evolutionary and cultural developments that allowed our ancestors to colonize the continents and develop lifeways involving hunting and gathering, farming and urbanism.

ANTHRO 397 Independent Readings in Anthropology Credits: 1-3
Intensive readings in an area selected by the student with prior consultation with instructor. Prerequisites: Twelve hours of anthropology.

ANTHRO 407 Writing Culture: The Craft of Ethnography Credits: 3
This course will explore the ways anthropologists document and write about cultural practices, processes, and beliefs. Students will become familiar with debates about representation while they consider differences in the ways ethnographic writing rhetorically conveys culture. Students will also compare ethnographic methods, theories, and styles of writing as these have changed over time.

ANTHRO 441 Globalization and Development Credits: 3
Focuses on issues of economic development, social stratification, political institutions, and political mobilization in societies where colonialism provided the context for their long-term disadvantages in the international economic order. Specific attention is paid to the intersection of the international components that define the options and limits for societal development (e.g., market shifts, international institutions and contracts, foreign policies, and migration) and the distinct social, political and cultural implications of these factors for developing societies. Cross Listings: SOCIOL 441.

Arabic (ARABIC)

Courses

ARABIC 110 Elementary Arabic I Credits: 5
Fundamentals of the language, essentials of conversation, grammar, practical vocabulary, useful phrases, and the ability to understand, read and write simple classical Arabic.

ARABIC 120 Elementary Arabic II Credits: 5
Continuation of ARABIC 110. Prerequisites: ARABIC 110.

ARABIC 211 Second Year Arabic I Credits: 3
Further development of comprehension and communicative skills in the language. Readings of moderate difficulty and grammar review. Practice in writing. The goal is attainment of intermediate proficiency in the language. Prerequisites: ARABIC 120.

ARABIC 221 Second Year Arabic II Credits: 3
Continuation of ARABIC 211.

ARABIC 280 Special Intermediate Arabic Topics I Credits: 1-3
Instruction of Arabic on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit. Prerequisites: Elementary I and II college-level courses or equivalent.
ARABIC 290 Special Intermediate Arabic Topics II Credits: 1-3
Continuation of ARABIC 280. May not be repeated for credit.

Architectural Studies (ENV-DSN)

Courses

ENV-DSN 110 The Meaning Of Architecture Credits: 3
Architecture is a visual and physical expression of civilization. This course will introduce to the student an understanding and appreciation of architecture and our built environment through a broad examination of cultural and aesthetic paradigms. May not be taken for credit by students enrolled in the Architectural Studies curricula.

ENV-DSN 201 Environmental Design Studio I Credits: 4
Foundation studies introducing the principles, processes and vocabularies of environmental design. Instruction in two and three dimensional visualization of objects and spaces. Instruction in the use of instrument-aided drawing, freehand drawing and model building to represent and communicate design ideas at different scales of observation.

ENV-DSN 202 Environmental Design Studio II Credits: 4
Continuation of ENV-DSN 201.
Prerequisites: ENV-DSN 201.

ENV-DSN 203 Survey of the Design Professions Credit: 1
Overview of the design professions. Comparative study of the roles of the architect, interior architect, interior designer, landscape architect, and planner; their working methods, collaborative endeavors, and interaction with consultants and specialists. Description of career paths, educational alternatives, licensure, and professional organizations.

ENV-DSN 248 Fundamentals of Architectural Technology Credits: 3
Instruction in the fundamentals of architectural technology with emphasis on the concepts and principles necessary for developing an integrated approach to building design.

ENV-DSN 250 History of the Designed Environment I Credits: 3
This course will present an overview of the developments in architectural, urban, landscape and interior design which have had an impact on the physical environment from ancient times through the medieval up to the gothic period. A central objective of the course is to gain an understanding of why these developments occurred and how the needs and aspirations of a given time were manifested in physical form.

ENV-DSN 251 History of the Designed Environment II Credits: 3
This course will present an overview of the developments in architectural, urban, landscape and interior design which have had a consequential impact on the physical environment of the Western world from the Italian Renaissance (starting in the 15th century) up to the present day.

ENV-DSN 252 History of the Designed Environment III Credits: 3
The history of the designed environment from the mid-18th century to the present.

ENV-DSN 301 Architectural Design Studio I Credits: 5
Instruction in architectural design focusing on the application of elements and principles of form and space in design. Instruction in the use of techniques for visually representing design ideas.
Prerequisites: ENV-DSN 202.

ENV-DSN 302 Architectural Design Studio II Credits: 5
Instruction in architectural design focusing on the synthesis of basic social, functional, technical, and aesthetic factors in design. Continued instruction in techniques for visually representing ideas.
Prerequisites: ENV-DSN 301.

ENV-DSN 347 Structural Systems in Architecture I Credits: 4
Introduction to structure as a building system. Overview of contemporary structural systems and heir components, including wood, timber, steel, concrete, masonry, and hybrid structures. Discussion of building code requirements for structure, general guidelines for building structures, including appropriate application, and methods for schematic estimation of structural member sizing. Basic understanding of how gravity and lateral forces are propagated through a structural frame from load to building foundation.
Prerequisites: MATH 110, PHYSICS 210.

ENV-DSN 433 Building Construction Systems in Architecture I Credits: 3
In this lecture course, students develop an understanding of how materials and systems assembly reinforce and extend the intentions of the designer as well as an understanding of the strategies and techniques for integration and coordination of the building components.
Prerequisites: ENV-DSN 248.

Art (ART)
Courses

ART 105 Introduction To Photography Credits: 3
An introduction to the general practice of photography. The course centers on the basic technical and aesthetic aspects of the medium. A fully adjustable digital camera is required.

ART 112 Foundation Drawing Credits: 3
This course focuses on developing skills and techniques of observational drawing. No previous drawing experience required.

ART 114 Foundation Digital Design Credits: 3
This is an introductory course on techniques, practical applications and aesthetic considerations for digital arts, graphic design, and computer multimedia. Students will create visual projects and learn to participate in a creative class community.

ART 121 Foundation 2D Design Credits: 3
The principles of visual thinking with emphasis on color theory and perception of form and space.

ART 131 Foundation 3D Design Credits: 3
Introductory study in three-dimensional formal principles with emphasis on the aesthetic properties.

ART 204 Digital Video and Motion Design I Credits: 3
This introductory digital video and motion design course is intended for studio majors. General techniques and practical application of animation, video, text and sound in the digital arts and graphic design fields are addressed. Lectures, demonstrations, readings, discussions and application sessions.

Prerequisites: ART 112, ART 114, ART 121 and ART 131.

ART 206 Photography I Credits: 3
An introduction to photography as a means of creative self-expression. The course centers on the technical and aesthetic aspects of the medium. A fully adjustable digital camera is required.

Prerequisites: ART 105 or ART 114.

ART 212 Intermediate Drawing Credits: 3
Continuation of foundation drawing. Emphasis is on gaining technical facility with various drawing mediums and expanding conceptual approaches.

Prerequisites: ART 112.

ART 214 Ceramics I Credits: 3
Introduction to hand-built and wheel forming methods, concept development, ceramic materials, and firing procedures.

Prerequisites: ART 112 or ART 114 or ART 121 or ART 131.

ART 218 Graphic Design I Credits: 3
A beginning level introduction to Graphic Design principles, such as layout, design, concept, basis design theory, graphic design production, and use of industry-level design software and tools.

Prerequisites: ART 112, ART 114, ART 121, and ART 131.

ART 221 Painting I Credits: 3
Exploration of the visual language in paint with continued emphasis on color and design.

Prerequisites: ART 112, ART 114, ART 121 and ART 131.

ART 224 Print Media I Credits: 3
Through hands-on lessons, students will learn a variety of printmaking methods like intaglio, lithography, relief, etc. and approaches to making visual work. Recommended preparation: ART 212.

Prerequisites: ART 112, ART 114, ART 121, ART 131.

ART 230 Fibers I Credits: 3
From altering the surface of fabric to three-dimensional construction, students are taught the basics of fiber arts. This is a hands-on introduction to surface design and soft sculptural hand processes. The course will cover dyeing, shibori, screen-printing, knitting, crochet, and basic sewing. Projects are individualized by expertise, availability of supplies, and students’ own objectives.

Prerequisites: ART 121.

ART 235 Digital Imaging I Credits: 3
This course explores the different ways to connect digital imaging to one’s creative practice. Students will learn advanced imaging techniques in order to develop a consistent artistic voice that reflects personal interests and talents. Conceptual issues of digital media will be explored as they relate to contemporary art making.

Prerequisites: ART 114.
ART 305 Photography II Credits: 3
An advanced course in which students develop a deeper understanding of personal interests, sensibilities and goals as they relate to producing and appreciating creative photography. A fully adjustable digital camera is required.
Prerequisites: ART 105 or ART 206.

ART 309 Print Media II Credits: 3
A continuation of ART 224, this course deepens students' understanding of the historical conventions of and contemporary approaches to print media. Explores concepts and techniques through material involvement.
Prerequisites: ART 224.

ART 310 Digital Video and Motion Design II Credits: 3
This intermediate to advanced level digital video and motion design course is a continuation of ART 204. This course is intended for studio majors; it addresses advanced techniques of video post-production and motion graphic design. Lectures, demonstrations, readings, discussions, and application sessions. Recommended Preparation: ART 206 and ART 235.
Prerequisites: ART 204.

ART 311 Painting II Credits: 3
Painting in oil or acrylic on the intermediate level with continued emphasis on color.
Prerequisites: ART 221.

ART 312 Figure Drawing I Credits: 3
A study of the structure of the human figure with emphasis on the dynamics of figure movement.
Prerequisites: ART 212.

ART 327 Interactive Media Design Credits: 3
This course will cover the theoretical, social/cultural, and historical contexts of interactive media; the current importance and usages of the web and social media; and explore methods and tools of exploiting the media through the creation of websites, digital publications, and "apps". Students will learn to use and work with development languages such as HTML 3/5, CSS (cascading style sheets), and content management systems (CMS) such as Wordpress. Students should have an understanding of Adobe Photoshop.
Prerequisites: ART 235.

ART 330 Fibers II Credits: 3
Intermediate study of surface design and soft sculptural hand processes. Projects are individualized by expertise, availability of supplies, and students' own objectives.
Prerequisites: ART 230.

ART 335A Digital Imaging II Credits: 3
This class will strengthen the competence and knowledge of digital imaging techniques. Research, conceptual and verbal abilities within digital image making will be explored. Students will apply new techniques to their personal interests in the studio arts.
Prerequisites: ART 235.

ART 338 Graphic Design II Credits: 3
Intermediate study of graphic design theory, methodology and techniques, stressing a visual approach to problem solving in design, image making techniques, materials, and production processes standard to the industry.
Prerequisites: ART 218 and ART 348.

ART 340 3D Modeling and Animation Credits: 3
This course addresses the usage of virtual three-dimensional modeling and animation in the contemporary art and design fields.
Prerequisites: ART 204.

ART 348 Introduction To Typography Credits: 3
This course explores the formal and applied aspects of typography as tools for design and artistic expression. Focus is on how type relates to art, layout, and design. Both hand produced typography and computer assisted design software will be incorporated.
Prerequisites: ART 112, ART 114, ART 121 and ART 131.

ART 403 Advanced Typography Credits: 3
A continuation of ART 348, this course looks at more sophisticated typographic practice, typographic design theory, and both traditional methods of typographic design and practice such as letterpress and hand type and computer/digital based typography including motion-and time-based media such as web-sites and multimedia.
Prerequisites: ART 348.
ART 405 Practices in the Visual Arts Classroom Credits: 3
Candidates preparing to student teach will master the use of current research in art education, and apply theoretical and practical educational knowledge.  
**Prerequisites:** Permission from SOE advisor required.

ART 406 Advanced Problems In Photography Credits: 3
This course provides students a forum in which the issues and techniques of contemporary photography can be investigated on a rather esoteric level. The format of the course allows for a mutual decision by the instructor and students, dictating which investigations will be pursued during that particular semester. Possible areas of investigation would include, but are not limited to, color photographic theory and practice, non-silver photographic techniques (e.g. Kwikprint, gum bichromate, cyanotype, Van Dyke Brown, etc.), hand coloring techniques, photo-collage, etc.  
**Prerequisites:** ART 305.

ART 411 Painting III Credits: 3
Painting on the intermediate level with a focus on experimentation and developing a personal visual language and expression.  
**Prerequisites:** ART 311.

ART 412 Figure Drawing II Credits: 3
A continuation of ART 312. Drawing on the advanced level with study of the figure in environmental context.  
**Prerequisites:** ART 312.

ART 421 Painting IV Credits: 3
Painting on the advanced level with supervised individual selection of technique and subject matter.  
**Prerequisites:** ART 411.

ART 423WI Design Seminar Credits: 3
Capstone course for studio art majors with a focus on graphic design. Pertinent issues in practice, theory and history of design will be examined through selected readings, slide presentations and invited speakers. A research paper/presentation on a topic evolving from the discussions will be required. The course will also address resume and portfolio preparation for the design profession. This course is writing intensive.  
**Prerequisites:** ART 338, RooWriter.

ART 430 Graphic Design III Credits: 3
Advanced application of graphic design techniques to complex design problems. The course will stress individualized assignments and portfolio preparation.  
**Prerequisites:** ART 338.

ART 439 Student Design Agency Credits: 3-6
This course operates as a faculty-supervised design agency that works with clients to produce visual marketing materials.

ART 488 Creative Project Development Credits: 3
In this class students evaluate their creative goals and styles, as well as artistic abilities, in relation to their professional aspirations. Specific artistic and appropriate technological skills are developed through projects. Prerequisites: ART 114.

ART 492 Advertising Campaigns Credits: 3
This course focuses on branding, re-branding or development of an identity program, and combines advertising planning with creative execution. Students will learn how to develop advertising/marketing/creative campaign plans for a specific client(s), conceptualize, design and develop all creative aspects including but not limited to logo/identity, copy, advertising, website development, app design, etc., and complete a presentation of the plans/briefs and final creative developments of the plans/briefs and creative to the client(s).  
**Prerequisites:** ART 338.

ART 493 Directed Projects in Studio Art Credits: 1-6
With permission of instructor, advanced students pursue independent research and production of a significant semester-long project. Acceptable for graduate credit with approval.

ART 495 Special Topics in Studio Art Credits: 1-6
In depth exploration of a special topic in Studio Art. Course may be repeated if topic is unique for each repeated effort. Acceptable for graduate credit with approval.

ART 498Q Special Studies in Art: Internship Credits: 1-6
Advanced students gain invaluable practical experience in a professional setting in the field of art.

ART 499WI Senior Seminar Credits: 3
Capstone course for studio majors in all media. Course addresses contemporary theoretical and practical issues in studio art practice, and prepares students for graduation. Multiple papers, class presentations, and a portfolio preparation are required.  
**Prerequisites:** RooWriter.

Art History (ART-HIST)
Courses

ART-HIST 110 Introduction to the History of Art: Pyramids to Picasso Credits: 3
This is an introduction to the history of art, with in-depth discussions of painting, sculpture, prints, and architecture. Students will be introduced to significant works from major historical periods; their cultural roles, style and composition, and the artistic processes involved in their creation. Emphasis is placed upon Western art history, with attention paid to important interactions with other world traditions, including the arts of Islam, Japan, and Africa. The comprehensive collections of The Nelson-Atkins Museum of Art contribute an important component to the course.

ART-HIST 110 - MOTR ARTS 100: Art Appreciation

ART-HIST 201 From Cave Paintings to Cathedrals Credits: 3
Students will learn to analyze and place in an art historical context Western art and architecture from approximately 35,000 BCE to 1250 CE. Art and architecture from all relevant cultures and religions - pagan, Christian, and Islamic - will be covered; particular emphasis will be placed on the accomplishments of Egyptian and Greek artists.

ART-HIST 201 - MOTR ARTS 101: Art History I

ART-HIST 202 From Michelangelo to Modernism Credits: 3
This course will examine major monuments of Western art and architecture during the late Middle Ages through the Modern period. Art will be examined in its cultural context stressing artistic intent, issues of gender, changing patterns of patronage, and the ascending status of the artist in society.

ART-HIST 202 - MOTR ARTS 102: Art History II

ART-HIST 253 History Of The Designed Environment I, Ancient And Medieval Credits: 3
An overview of developments in architectural, urban, land and interior design which have shaped the physical environment of the Western world from prehistory through the period known as the "Romanesque." Emphasis will be given to relationships between institutions, values and needs of different societies and the architectural forms produced by those societies.

ART-HIST 254 History Of The Designed Environment II, Late Medieval To Modern Credits: 3
An overview of developments in architectural, urban, land and interior design which have had an impact on the physical environment of the Western World from the Gothic era to the beginning of the modern era. A central objective of the course is to gain an understanding of why these developments occurred and how the needs and aspirations of a given time were manifested in physical form.

ART-HIST 255 History Of The Designed Environment III, Modern (1750 To Present) Credits: 3
An overview of developments in architectural, urban, land and interior design which have shaped the physical environment of the Western world during the Modern period. Issues to be explored include renewed interest in archaeology during the eighteenth century, shifts in patronage, the impact of new industrial materials and techniques, demands for an array of new building types, and dilemmas of expression throughout the modern era. Our concerns will broaden and become more global in scope when we examine the twentieth century.

ART-HIST 264 The Grotesque in Art and Culture Credits: 3
This course explores the vibrant and subversive role of the grotesque in the visual arts from 1500 to the present day. The grotesque comprises an alternate image tradition that is often overlooked, or even actively suppressed. This course will explore the distinct strands of the grotesque: witty and inspired improvisation, from Michelangelo to Picasso; rowdy and subversive carnivalesque, from Bruegel to Hogarth to DeKooning; and the monstrous and uncanny, from Bosch to Goya to Kahlo.

ART-HIST 303 World Currents of Contemporary Art Credits: 3
This survey course provides an introduction to the densely interconnected trajectories of contemporary art in different parts of the world. It explores the continuities and discontinuities between modern and contemporary art in the context of intensifying transnational exchanges since the 1960s. Students will become familiar with the intersections of contemporary art with everyday life, mass media, politics and technology.

ART-HIST 315 Arts Of African and New World Cultures Credits: 3
This historical survey of ethnographic arts examines the diasporas of African art and the influences of Africans on the arts of new world cultures (in Brazil, Surinam, Cuba, Haiti, and the United States) and Meso-American art and the influence of Meso-Americans on the arts of the Native North American cultures.

ART-HIST 319 Asian Art Credits: 3
The survey will emphasize the philosophical and cultural context of the arts of India, Southeast Asia, China, Korea and Japan. The course will stress the elements that give an underlying unity to the arts as well as those qualities which distinguish the art of each country as unique.
ART-HIST 330WI Modern Architecture Credits: 3
This class, open to undergraduates from any discipline, explores "Modern Architecture," from c.1850 to the "present," with an emphasis on American architecture and urban design. We explore new building types designed for a new era, including skyscrapers and a range of cultural buildings, emphasizing how they transformed – and continue to transform – our cities and suburbs.

Prerequisites: RooWriter.

ART-HIST 402CC CC: Making the Modern in France: Dance, Art, Music, and Literature Credits: 3
This cluster course will take an interdisciplinary approach to understand the way modernism developed within the arts, with a focus on late-19th, early 20th-century France. Developments in literature, art, dance, and music and their interconnectedness to cultural and historical events will be highlighted and explored.

ART-HIST 415WI Romanticism Credits: 3
Art of the Romantic Era, principally in Europe, from c. 1790 to c. 1860. Consideration is given to the problems of patronage, criticism and stylistic influences. Recommended preparation: Any ART-HIST survey course.

Prerequisites: RooWriter.

ART-HIST 416WI Later 19th Century Painting And Sculpture Credits: 3
From Realism through Post-Impressionism. A study of art, principally in Europe, from c. 1850 to c. 1905, with consideration given to factors influencing stylistic changes during this period. Recommended preparation: Any ART-HIST survey course.

Prerequisites: RooWriter.

ART-HIST 421 Made in the USA: Latinx Art and Experience Credits: 3
This course focuses on art of and by members of the U.S. Latinx community. Students in this course will engage with the politics of representation, gender, sexuality, race, class, and ethnicity in Latinx art, as well as visual and popular culture.

ART-HIST 429WI American Painting And Sculpture Credits: 3
A study of the history of painting and sculpture, and other figurative arts, from earliest colonial times to the present. Emphasis will be placed on those artists who illuminate the major achievements in American art, and also the ongoing role played by European training and tradition. Recommended preparation: Any ART-HIST survey course.

Prerequisites: RooWriter.

ART-HIST 439WI Paris in the Age of the Rococo Credits: 3
In the early 18th century, Paris overtook Rome as the artistic center of Europe. We explore all of the visual arts during the vibrant "Rococo," the age of Watteau, Chardin, and Boucher.

Prerequisites: RooWriter; ART-HIST 110 or ART-HIST 202.

ART-HIST 440WI French Art: Renaissance And Baroque Credits: 3
A history of French art from the time of Louis XII through the Age of Louis XIV, with emphasis on painting and architecture. Recommended preparation: Any ART-HIST survey course.

Prerequisites: RooWriter.

ART-HIST 441WI Northern Baroque: The Age Of Rubens, Rembrandt And Wren Credits: 3

Prerequisites: RooWriter.

ART-HIST 443 Meso-American Art Credits: 3
The course will discuss 2500 years of the arts of ancient Mexico and Guatemala. Included is the rise of such important cultures as the Olmec, Maya, and Aztec. Equal emphasis will be placed on the development of elaborate ceremonial centers such as Monte Alban and the Teotihuacan, as well as the ceramic traditions of the West and East coasts of Mexico.

Prerequisites: ART-HIST 315 or BLKS 315.

ART-HIST 445 Northern European Art: 15th And 16th Centuries Credits: 3
A study of panel painting, sculpture and manuscript illumination in Flanders, France, Germany, and Spain from the Hundred Years' War through the Reformation. Special emphasis will be placed upon the stylistic and iconographic innovations of such major Northern artists as Claus Sluter, Jan van Eyck, Jerome Bosch, Pieter Bruegel, Jean Fouquet and Albrecht Durer. Artistic developments will be presented within the context of changing economic, political, religious and social institutions of the period. Recommended preparation: Any ART-HIST survey course.

ART-HIST 447WI Italian Baroque: The Age Of Caravaggio, Bernini And Borromini Credits: 3
Painting, sculpture and architecture in Italy from the creation of the Baroque style in the late 16th century to the beginnings of the Barochetto era. Recommended preparation: Any ART-HIST survey course.

Prerequisites: RooWriter.
Prerequisites:
specific natural environments, museum settings and public spaces.

And socio-political conditions of existence and art making. This seminar examines artworks that are produced outside the studio and are inspired by

At a time of increased transnational mobility, contemporary artists are conceiving artworks that catalyze an enhanced awareness of the geographical

ART-HIST 476 Site-Specific Art: Within and Beyond the Museum Walls Credits: 3
Prerequisites:
and object interpretation. Students will explore changes in the functions of art museums and will develop practical skills for future museum

This course familiarizes students with the history of art museums and collecting practices. It will cover theories of museum government, curating,

ART-HIST 470 Art Museums: History and Practice Credits: 3
Prerequisites:
through their appropriations from archaic, folk, and non-western art traditions, from 1800-on, while also situating these creative endeavors within the
cultural and political contexts of the period. Recommended preparation: Any ART-HIST survey course.

This course will familiarize students with the history of art museums and collecting practices. It will cover theories of museum government, curating,

ART-HIST 473 Visual Arts Administration Credits: 3
Prerequisites:
and object interpretation. Students will explore changes in the functions of art museums and will develop practical skills for future museum
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ART-HIST 477 Site-Specific Art: Within and Beyond the Museum Walls Credits: 3
Prerequisites:
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employment.

ART-HIST 477 Site-Specific Art: Within and Beyond the Museum Walls Credits: 3
Prerequisites:
ART-HIST 477 Contemporary Artists of the African Diaspora Credits: 3
This course examines cultural and aesthetic continuities between traditional and contemporary arts and artists in Africa and in the Americas, including the study of contemporary Africans whose cultures had the greatest influence in the Americas as well as contemporary African-American artists in Brazil, Cuba, Haiti, and the United States.

Prerequisites: ART-HIST 315 or BLKS 315.

ART-HIST 478 Pompeii and Herculaneum: The Archaeology of the Roman World Credits: 3
This class offers insights into the art, architecture, politics, economics, religions and social life of the Roman world through the study of Pompeii and Herculaneum.

ART-HIST 479 From the Parthenon to the Altar of Peace Credits: 3
The course centers on the many different styles of Greek and Roman art from the fifth century B.C. to the early first century A.D. Attention is also paid to the political and literary forces behind its imagery. Three monuments serve as the pillars upon which the course rests: the Parthenon, Pergamon Altar, and the Ara Pacis. The lessons learned about style, the interaction of politics, literature, and art and the foibles of scholarship are intended to be applied to other fields of art history. Recommended preparation: Any ART-HIST survey course.

ART-HIST 482 Scope & Methods Of Art History Credits: 3
An exploration of the discipline of art history, including theoretical issues, guiding questions and problems, diverse approaches (historical and current), and research tools. The undergraduate capstone course for art history majors.

Prerequisites: Senior standing.

ART-HIST 493 Directed Studies in Art History Credits: 1-6
With permission of instructor, advanced students pursue independent research and production of a significant semester-long research project. Acceptable for graduate credit with approval.

ART-HIST 495 Special Topics in Art History Credits: 1-6
In depth exploration of a special topic in Art History. Course may be repeated for up to 18 credit hours if topic is unique for each repeated effort. Acceptable for graduate credit with approval.

ART-HIST 497Q Special Studies in Art History: Internship Credits: 1-6
Advanced art history students gain invaluable practical experience in a professional setting in the field of art.

Arts & Sciences - General (A&S)

Courses

A&S 100 Methodologies In Liberal Arts & Sciences: Theories & Application Credits: 3
This three hour course is designed for freshmen and transfer students, to be taken during their first semester of study at UMKC. The curriculum provides students an introduction to the major disciplines and methodologies of the liberal arts and sciences, including sessions on choosing majors and careers. Additional emphases will include learning to use the library, writing and computational skills, oral presentations, cultural diversity, stress management, and study strategies.

A&S 115 Career Possibilities Credit: 1
This course introduces career development as a complex process of self-assessment and decision-making. Students analyze their personal interests, motivation, conduct self-assessment, identify their personal values, and discuss ethical considerations as they relate to possible career choices. Visiting professionals will provide insight into career options as students explore possible career paths.

Prerequisites: A&S 115.

A&S 210 Cross-Cultural Interaction: Experience and Understanding Credits: 3
This course focuses on the social and cultural context of interactional patterns. U.S. and international students are paired in academic activities to encourage mutual understanding and self-awareness. They will draw on a variety of resources and learning modalities to examine aspects of their own and one another’s societies, cultures, religions, and family relations. Making use of intercultural theories, students will reflect upon and explore cultural myths and stereotypes and develop a general understanding of cultural similarities and differences.

A&S 215 Career Explorations Credit: 1
The primary focus of this course is to complete an in-depth self-assessment and the generation of personalized list of career paths. Personal values will inform these possibilities, which are then explored through job shadowing, informational interviews, visiting lecturers, and independent career research. Ethical considerations of chosen career paths are explored. Students reflect on the professional experiences of others and relate them to their own personal values.

Prerequisites: A&S 115.

A&S 310 Cross-Cultural Interaction II: Social Relations Credits: 3
This course will match international students with U.S. students to prepare them to interact more effectively in multilingual and/or intercultural settings. Students learn through readings on cultural theory and cultural relations, in-class small group activities, discussions and lectures, how issues of identity, such as age, sexual orientation, and ethnicity; impact cross-cultural interaction. Papers written for this course will help students integrate theory with previous experience, leading to an understanding of oppression in cross-cultural interaction.

Prerequisites: A&S 210.
A&S 315 Career Methods Credit: 1
In this course students begin to map out the realization of their career paths. They analyze their career choices, how these choices inform their life plans, articulate the ethical and moral requirements of these careers, and understand how their personal values and strengths match these requirements. Independent career research and entry preparation along with job shadowing, informational interviews, mock interviews, and other preparations required for the selected career choices are included in this class.

Prerequisites: A&S 215.

A&S 341 Union Leadership and Administration Credits: 3
This course focuses on the roles and challenges of union leadership in a changing environment. Topics include the union leaders' role as a representative, organizer and educator as well as administrative responsibilities within the union and the relationship with enterprise management in both adversarial and participatory situations. Options for leadership styles and organizational models will be discussed and explored in both theory and practice. Leaders will develop their skills of motivation, speaking, strategic planning and managing complex campaigns and diverse organizations. This course is part of the Certificate Program in Labor Studies and is offered on the University of Missouri Interactive Video Network at UMKC, UMSL, and UMC.

A&S 350 Special Topics Credits: 1-4
An undergraduate course designed to deal with a topic which is not available in the regular course offerings.

A&S 350A Special Topics Credits: 1-4
An undergraduate course designed to deal with a topic which is not available in the regular course offerings.

A&S 350B Special Topics Credits: 1-4
An undergraduate course designed to deal with a topic which is not available in the regular course offerings.

A&S 350H Special Topics Credits: 1-4
An undergraduate course designed to deal with a topic which is not available in the regular course offerings.

A&S 350R Special Topics Credits: 1-4
An undergraduate course designed to deal with a topic which is not available in the regular course offerings.

A&S 365P Introduction To Substance Abuse Counseling: Theory And Practice Credits: 3
This course will introduce the student to the problems of substance abuse and the methods/techniques used in treatment. The course will explore theories of personality and belief systems of the chemically dependent or alcoholic individual. The course will also review the impact of the disease on the family system.

A&S 400 Special Readings/Topics Credits: 1-6
A&S 400B Special Readings/Topics Credits: 1-6
A&S 400E Special Readings/Topics Credits: 1-6
A&S 400G Special Readings/Topics Credits: 1-3
A&S 400H Special Readings/Topics Credits: 1-3
A&S 400PD Special Readings/Topics Credits: 1-6
A&S 400RR Special Readings/Topics Credits: 1-3
A&S 400SA Special Readings/Topics Credits: 1-6
A&S 400SB Special Readings/Topics Credits: 1-3
A&S 400SS Special Readings/Topics Credits: 1-3

A&S 415 The Aging Body: Causes and Consequences Credits: 3
This course will explore biological changes that occur with aging. Plasticity, frailty, stress, coping, and chronic illness will be viewed through the biopsychosocial lens. Biomedical discoveries and implications for the future of aging will be discussed.

A&S 490 Special Topics Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor. By permission only.

A&S 490B Special Topics Credits: 1-3
A&S 490PB Special Topics Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor.
A&S 490S Special Topics Credits: 1-3
A&S 490SA Special Topics Credits: 1-3
A&S 490SB Special Topics Credits: 1-3
A&S 490W Special Topics Credits: 1-3
A&S 492 Field Practicum In Aging Credits: 3-8
Students spend 180-480 contact hours in a field placement with supervision in a community agency or organization which services or advocates for older persons, and keep a journal documenting and reflecting on the practicum activities and experiences particularly as they relate to gerontological theory and research.

**Astronomy (ASTR)**

**Courses**

ASTR 150 Astronomy: Motions of the Cosmos Credits: 3
An introductory exploration of modern topics in astronomy with an emphasis on developing conceptual models for the fundamental laws of gravity and motion crucial to the formation of stars and planetary systems, the growth of black holes and galaxies, and the evolution of cosmic structure.

ASTR 153L Introductory Astronomy Laboratory Credits: 2
An introductory exploration of astronomical phenomena and concepts through quantitative laboratory activities requiring data collection, analysis and interpretation. This course is open to students from all majors.

**Cross Listings:** NAT-SCI 153L, PHY-SCI 153L, PHYSICS 153L.

ASTR 155 Astronomy: Starlight and Star Stuff Credits: 3
An introductory exploration of modern topics in astronomy with an emphasis on developing conceptual models for the interactions between light and matter crucial to the life and death of stars, the analysis of starlight and interstellar chemistry, and the interpretation of cosmic history.

ASTR 353 Practical Astronomy Credits: 3
A practical overview of the basic methods of observational astronomy research, including the principles of telescopes, detectors and measurement theory.

**Prerequisites:** PHYSICS 220 or PHYSICS 250; and MATH 250 or MATH 268.

ASTR 355 Stellar Astrophysics Credits: 3
A mathematical and conceptual overview of the observed properties of stars and the fundamental astrophysics of radiative transfer, hydrostatic equilibrium, atomic processes and thermonuclear energy production that govern their structure, atmospheres and remnants.

**Prerequisites:** PHYSICS 220 or PHYSICS 250; and MATH 250 or MATH 268.

ASTR 356 Galaxies Credits: 3
A mathematical and conceptual overview of the observed properties and astrophysics of galaxies highlighting star formation and evolution, the interstellar medium, the Milky Way, galaxy populations and demographics, active galactic nuclei, and galaxy formation and evolution.

**Prerequisites:** PHYSICS 220 or PHYSICS 250; and MATH 250 or MATH 268.

ASTR 465 Cosmology Credits: 3
This course provides a foundation in both physical and observational cosmology. Students will acquire both a mathematical and conceptual understanding of the formation and dynamics of the Universe.

**Prerequisites:** PHYSICS 220 or PHYSICS 250; and MATH 250 or MATH 268.

**Bassoon (BASSOON)**
Courses
BASSOON 100A Preparatory Applied Study Credits: 2
One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

BASSOON 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

BASSOON 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

BASSOON 101 Freshman Bassoon I Credits: 2-4
BASSOON 102 Freshman Bassoon II Credits: 2-4
BASSOON 201 Sophomore Bassoon I Credits: 2-4
BASSOON 202 Sophomore Bassoon II Credits: 2-4
BASSOON 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Co-requisites: Enrollment in lessons.

BASSOON 301 Junior Bassoon I Credits: 2-4
BASSOON 302 Junior Bassoon II Credits: 2-4
BASSOON 401 Senior Bassoon I Credits: 2-4
BASSOON 402 Senior Bassoon II Credits: 2-4

Biology (BIOLOGY)

Courses
BIOLOGY 102 Biology and Living Credits: 3
Introduction to structural organization and functional processes of living systems. For non-biology majors only. Does not count toward biology degree.
BIOLOGY 102 - MOTR BIOL 100L: Essentials in Biology with Lab

BIOLOGY 102L Biology and Living Laboratory Credit: 1
Exploration of basic biological concepts through laboratory activities requiring data collection and analysis. For non-majors only; does not count toward Biology degree requirements.
Prerequisites: BIOLOGY 102.

BIOLOGY 102L - MOTR BIOL 100L: Essentials in Biology with Lab

BIOLOGY 108 General Biology I Credits: 3
Fundamental studies in biology emphasizing the unity and diversity of life. Topics include the basic chemistry of biological processes, cell types and organelles, energy harvesting and energy producing pathways, cell and life cycles, genetics, DNA structure, genes, transcription, translation, natural selection, population genetics, speciation, and phylogenetic analysis.
BIOLOGY 108L General Biology I Laboratory Credit: 1
Basic laboratory studies in Biology emphasizing the unity and diversity of life. Structure, function, heredity, development, ecology and evolution will be explored.
Co-requisites: BIOLOGY 108.

BIOLOGY 109 General Biology II Credits: 3
Fundamental studies in biology emphasizing the unity and diversity of life. Topics include prokaryotes, fungi, invertebrate-vertebrate zoology and phylogeny, human evolution, plant structure and development, animal development and physiology, ecology (population and ecosystems).
BIOLOGY 109L General Biology II Laboratory Credit: 1
Basic laboratory studies in Biology emphasizing the unity and diversity of life. Structure, function, heredity, development, regulation of growth and evolution will be explored.
BIOLOGY 115 First Year Seminar Credit: 1
This course is designed to provide students with the skills necessary to achieve success at the university. The curriculum includes time management, study, reading, note-taking and test-taking strategies, health and wellness, and student support services. Additional emphasis will include career exploration, including professionalism, writing a resume, and developing plan of study for degree completion.

BIOLOGY 122 Human Genetics Credits: 3
This is a non-majors biology course in human genetics designed for those with little classroom training in the sciences. The focus will be on the nature of human genetic variation and how variation shapes and affects our lives. This includes the structure and function of genes and how genes create traits. The discussion will focus on how genes function in human development through sex determination. The inclusion of human genomic sequencing technology and personal genomics will emphasize several issues related to knowledge and privacy.

BIOLOGY 122 - MOTR LIFS 100: Essentials in Human Biology

BIOLOGY 125L Guided Research in Biology Credits: 2
An introduction to basic principles and methods of scientific research in the biological sciences. Students will engage in experimental design, use of bioinformatic tools, molecular graphics, and specialized tools related to different biology disciplines to characterize a specific gene or cell system under the guidance of a faculty member.

Prerequisites: BIOLOGY 108, Biology major.

BIOLOGY 201 Preparing for Careers in Biology Credit: 1
This course will help students prepare for their post-undergraduate future. Topics will include communication, skills identification and marketing, how to find employment or internship opportunities, a review of the application process for graduate education and the role of undergraduate research.

Prerequisites: Sophomore standing

BIOLOGY 202 Cell Biology Credits: 3
Basic concepts of cellular and subcellular structure and function, including supramolecular and organelle structure and organization, bioenergetics, cell growth and cellular communication.


BIOLOGY 203 Essential Cell Biology Credits: 3
Foundations of cellular functions. Serves as a bridge between biochemistry and cell and organ physiology for dental students. Applications of fundamental principles to the physiology and pathology of the oral tissues will be stressed.

BIOLOGY 206 Genetics Credits: 3
A modern approach integrating molecular and organismal studies of the general genetics of lower and higher organisms. Chromosomal structure and function, gene transmission, heredity, plasticity and population genetics will be discussed.

Prerequisites: BIOLOGY 108, BIOLOGY 109, CHEM 212R.

BIOLOGY 302 General Ecology Credits: 3
Introduction to the study of populations, communities, and ecosystems by examining the interrelationships between living organisms and their environments. The role of natural selection and evolution will also be considered.

Prerequisites: BIOLOGY 108, BIOLOGY 109 (or BIOLOGY 102).

BIOLOGY 302L Ecology Laboratory Credits: 2
This course provides laboratory and field experience in ecology. The course will cover topics including statistical analysis and data presentation, terrestrial and aquatic sampling, experimental design and scientific writing.

Co-requisites: BIOLOGY 302.

BIOLOGY 303 Invertebrate Zoology Credits: 3
Taxonomy, evolutionary relationships, behavior, reproduction, morphology and ecology of the invertebrates.

Prerequisites: BIOLOGY 108, BIOLOGY 109, CHEM 212R.

BIOLOGY 305 Marine and Freshwater Biology Credits: 3
Introduction to the study of marine ecology, deep-sea biology, oceanic nekton, inter-tidal ecology, estuaries, mangroves and salt marshes, as well as ecology of rivers, lakes, streams, wetlands and human impact on aquatic habitats.

Prerequisites: BIOLOGY 108, BIOLOGY 109, CHEM 211.

BIOLOGY 308 Vertebrate Zoology Credits: 3
Taxonomy, evolutionary relationships, behavior, reproduction, morphology and ecology of the vertebrates.

Prerequisites: BIOLOGY 108, BIOLOGY 109, CHEM 212R.
BIOLOGY 312WL Laboratory in Developmental Biology, Genetics and Cell Biology Credits: 3
Experimental studies of genetics and development in selected eukaryotic model organisms with an emphasis on the molecular and cellular mechanism of inheritance.
Prerequisites: LS-BIOC 441.
Co-requisites: BIOLOGY 409.

BIOLOGY 314 Entomology Credits: 3
Anatomy, physiology and identification of insects with emphasis on their environmental adaptations.
Prerequisites: BIOLOGY 109 (or LS-ANATO 219).

BIOLOGY 319 Global Health: New and Emerging Infectious Diseases Credits: 3
This course will discuss infectious diseases that are newly identified, or increasing in prevalence throughout the world. Several aspects of each disease will be discussed, including transmission, symptoms, treatment, prevention, and diagnosis. The course is meant for students interested in a health-related career (medicine, dental, pharmacy, public health), but other students with a basic biology background are welcome.
Prerequisites: BIOLOGY 108, BIOLOGY 109 (or BIOLOGY 102).

BIOLOGY 322 General Parasitology Credits: 3
Parasitic protists, worms and arthropods and the disease states they may induce, will be examined in relationship to human, animal and plants hosts.
Prerequisites: BIOLOGY 109 (or LS-ANATO 219).

BIOLOGY 326 Biological Conservation Credits: 3
Applications of ecology and genetics to the conservation of communities and individual species, including discussion of the Endangered Species Act, extinction processes, and the effects of habitat fragmentation.
Prerequisites: BIOLOGY 108, BIOLOGY 109.

BIOLOGY 327 Biogeography and Biodiversity Credits: 2
Evolutionary and climatological effects on the geographic distribution of organisms, including areas of endemism as well as preservation of biodiversity.
Prerequisites: BIOLOGY 108, BIOLOGY 109.

BIOLOGY 328 Histology Credits: 2
Animal tissues and their specialization in the organism, with major emphasis on higher organisms.
Prerequisites: BIOLOGY 109, BIOLOGY 202, CHEM 212R.

BIOLOGY 328L Laboratory in Histology and Cellular Ultrastructure Credits: 3
Examination of structure/function relationships at the subcellular, cellular and organ levels. Both plants and animals will be examined with emphasis on vertebrates.
Prerequisites: BIOLOGY 202, BIOLOGY 328.
Co-requisites: CHEM 212R.

BIOLOGY 328WL Laboratory in Histology and Cellular Ultrastructure Credits: 3
Examination of structure/function relationships at the subcellular, cellular and organ levels. Both plants and animals will be examined with emphasis on vertebrates.
Prerequisites: BIOLOGY 202, CHEM 212R.
Co-requisites: BIOLOGY 328.

BIOLOGY 329 Endocrinology Credits: 3
Study of the physiological functions and controls in human and related mammalian systems, with emphasis on endocrine-directed processes that underlie normal and abnormal metabolic and clinical conditions. The course will be presented in traditional lecture format, and focus on the molecular, chemical, membrane and cellular basis of metabolic homeostatic processes in cells, cytoplasmic compartments and primary organ systems.
Prerequisites: BIOLOGY 202.
Co-requisites: LS-PHYS 316.

BIOLOGY 331 Reproductive Biology Credits: 2
Comprehensive overview of current concepts and knowledge regarding male and female reproductive processes, from gametogenesis through early placentation. Includes structural, developmental, physiological and pathophysiological aspects of reproduction.
BIOLOGY 338L Comparative Vertebrate Anatomy Laboratory Credits: 3
This class explores anatomical similarities and differences that exist between the major vertebrate groups and relates aspects of anatomy to evolutionary history and function. Students will gain hands-on experience of anatomy through dissection and examination of several model vertebrates.
Prerequisites: BIOLOGY 108, and BIOLOGY 109, and BIOLOGY 109L.

BIOLOGY 344 Bioorganic Structure and Biomolecular Function Credits: 3
An introduction to chemical and physical properties of complex biological macromolecules and their functions in living cells. Nomenclature, functional groups, reactions and stereochemistry are among the topics to be emphasized.
Prerequisites: BIOLOGY 109, CHEM 320, CHEM 322R.

BIOLOGY 346 Plant Biology Credits: 3
An integrative study of growth, development, and reproduction of plants, including structure and function of plant tissues and organs, as well as a survey of the recent advances in genetic engineering, plant defense mechanisms, and medical botany and the usefulness of plants to humans.

BIOLOGY 350 Assisting Undergraduate Learning in Biology Credits: 1-3
This course addresses current issues and pedagogy of teaching biology and providing instructional support for designated undergraduate courses in the School of Biological Sciences. Students meet weekly with the course instructor and assist in the classroom, studio, or laboratory.
Prerequisites: BIOLOGY 108, BIOLOGY 109, BIOLOGY 202, BIOLOGY 206.

BIOLOGY 385 Special Topics Credits: 1-3
In depth exploration of a topic in biology. Repeatable toward the major only when the topic changes.

BIOLOGY 405 Introduction to Evolution Credits: 3
Discussion of the biological processes that produce organic diversity through phyletic change, including variation, mutation, adaptation, population genetics, natural selection, genetic drift, gene flow, and macroevolution.
Prerequisites: BIOLOGY 206.

BIOLOGY 409 Developmental Biology Credits: 3
Principles of development and differentiation of structure during embryology in animals. Molecular, cellular and organismal level concepts and mechanisms will be considered.
Prerequisites: BIOLOGY 202, BIOLOGY 206.

BIOLOGY 415 Pathophysiology Credits: 3
Pathophysiology will focus on the physiological basis of cellular and tissue function, and the consequences of dysregulated metabolic/cellular expression on essential homeostatic processes in cells, cytoplasmic compartments and primary organ systems.
Prerequisites: LS-PHYS 316.

BIOLOGY 427 Plant Physiology Credits: 3
A study of the biochemical and physical processes involved in plant function at the molecular and cellular level and the mechanisms by which plants respond to environmental challenges.
Prerequisites: BIOLOGY 202, BIOLOGY 206, LS-BIOC 441.

BIOLOGY 442 Neurobiology Credits: 3
Neurobiology will consist of the presentation of theory and data concerning cellular and molecular fundamentals of the nervous system, synaptic mechanisms, sensory-motor systems, and higher-order functions of the nervous system.
Prerequisites: LS-BIOC 441 or LS-PHYS 316.

BIOLOGY 445 Evolutionary Ecology Credits: 3
This class explores the scientific concepts and methods underpinning modern understanding of evolutionary ecology as it relates to organisms. Students will gain hands-on experience using techniques that are central to quantitative and qualitative studies of organismal evolutionary ecology.
Prerequisites: BIOLOGY 302, BIOLOGY 405.

BIOLOGY 485 Special Topics Credits: 1-3
In depth exploration of a topic in biology. Repeatable toward the major only when the topic changes.

BIOLOGY 498WI Critical Analysis of Biological Issues Credits: 3
Reading and analysis of scientific literature, including original papers, on a topic of broad biological interest. Critical discussion of experimental methods and results. Writing of scientific reviews and a term paper. Taking the MFAT test is a requirement of this course, and the course satisfies the general education synthesis requirement.
Prerequisites: BIOLOGY 108, BIOLOGY 109, BIOLOGY 202, BIOLOGY 206, CHEM 320 (or CHEM 322R), RooWriter.
Black Studies (BLKS)

Courses

BLKS 201 Global Systems and the Origins of Black American Culture and Institutions Credits: 3
This multidisciplinary course examines global capitalism, European contact with Africa, the development of the African Diaspora, and the origins of Black American institutions and culture. Applying a Black studies perspective, the course explores such themes as cultural and gendered oppression, institutional destabilization, economic dislocation, liberation struggles, and creative impulses and aesthetics and the social and historical experiences of Black people in the Americas.

BLKS 302 Conceptual and Theoretical Foundations in African American Studies Credits: 3
This course will provide an in-depth examination of the theoretical and conceptual parameters of African American studies. We will study the evolution of the field, key scholars and creative intellectuals, and seminal categories of thought.

BLKS 315 Arts of African and New World Cultures Credits: 3
This historical survey of ethnographic arts examines the diasporas of African art and the influences of Africans on the arts of new world cultures (in Brazil, Surinam, Cuba, Haiti, and the United States) and Meso-American art and the influence of Meso-Americans on the arts of the Native North American cultures.

BLKS 320 Critical Health Issues in Black Communities Credits: 3
Beginning with the African context and the opposition of chattel slavery, this course examines social, cultural, and historical factors affecting the health status of African Americans to the present era. It explores a variety of health-related issues including the interplay between environment, biology, and culture; folk and popular health practices; structured inequality and oppression; lifestyle, beliefs and values; and the organization and delivery of health care. Moreover, this course moves well beyond the idea that medical care is singular or most critical factor determining the health of a people, community, or society. It reveals the importance of social phenomena in disease resistance and health promotion. Historical shifts from the prominence of infectious to chronic diseases; the implications to health of chattel slavery, sharecropping, segregation, poverty, and structured inequality; the relationship between psychosocial factors and disease, i.e. destablized social settings that compromise resistance to disease; environmental racism; and the health status of African Americans as it relates to the organization of work, family structure and function, religious beliefs, the organization of medical care, lifestyle, consumer manipulation, and post-industrial society are major issues addressed by the course.

BLKS 321 The Black Family and Male-Female Relationships Credits: 3
This course examines the historical evolution and current status of the African American family in the United States. Utilizing the African experience as its starting point the course conveys a broad understanding of the role of the family in human survival and progress. We investigate such issues as male-female relationships, sexual practices, dating, marriage, single parenting, the education and socialization of children, and so on. We also examine an array of social and economic issues, including institutionalized inequality, that affects the viability of today’s African American family.

BLKS 325 African American Business Development Credits: 3
This course investigates the various challenges to African American business development and entrepreneurship on the united States. We study the lives of successful, pioneering African American businesswomen and men in order to assess how they managed to transcend the barriers of racism and structured inequality. We explore why certain kinds of enterprises emerged among African Americans and why others did not, and we scrutinize the traditional business problems for African Americans of capitalization distribution market penetration, and wealth creation.

BLKS 330 African American Migrations in Literature Credits: 3
The course examines representations of two different trajectories of migration in African American literature: African American journeys from the south to northern and mid-western regions of America, and concurrent migrations of Caribbean people to the US in the early twentieth century.

BLKS 331 African American Literature I Credits: 3
This course provides a survey of African American literature from its beginnings to the Harlem Renaissance of the 1920s and 1930s. Areas of interest will include abolitionist literature (especially slave narratives), turn-of-the-century literature and the Harlem Renaissance. This course will examine any or all of the following literary forms: fiction, poetry, drama, autobiography and essay. It will view African American literature in its historical and cultural contexts.

BLKS 332WI African American Novel Credits: 3
This course will examine the African American novel in the 19th and 20th centuries; the emphasis will be on the period from the 1920s to the present. The novels will be examined in their historical and cultural contexts.
Prerequisites: RooWriter.

BLKS 333 African American Literature II Credits: 3
A survey of African American literature from the end of the Harlem Renaissance to the present, covering a range of authors, texts, and contexts.

BLKS 334 From Field Shout to Hip Hop: African American Poetic Traditions Credits: 3
This course examines the development of African American poetry from its early forms as field shouts, ballads, and blues to present forms including spoken word and hip hop. Includes authors such as Phillis Wheatley, Paul Lawrence Dunbar, Langston Hughes, Gwendolyn Brooks, Tupac Shakur, and Jessica Care Moore.
BLKS 335 Stages Toward Freedom: African American Dramatic Traditions Credits: 3
This course explores the development of African American dramatic traditions from the eighteenth century through the Harlem Renaissance Black Arts Movement, to current postmodernism. Includes authors such as W.W. Brown, Zoran N. Hurston, Amiri Baraka, Sonia Sanchez, August Wilson, Suzan-Lori Parks.

BLKS 337 The Civil Rights Movement in African American Literature Credits: 3
This course examines how African American literature shaped ideas about freedom, rights, citizenship and race in the civil rights movement. It draws on a variety of literary forms—speeches, essays, autobiographies, fiction, drama, poetry and film—to explore the movement's impact on communities and cultures as well as its various debates and competing visions.

BLKS 338 Women's Literature in Africa and the African Diaspora Credits: 3
This course is a comparative examination of the variety of literary works produced by women of African descent in the United States, the Caribbean and Africa. Students will explore the cross-cultural implications of texts in light of the intersections of gender, race and class.

BLKS 349 Symbols and Codes from the Diaspora: African American Visual Arts Survey Credits: 3
This course provides an examination of the theoretical and conceptual parameters of African and African American visual aesthetics. Through the writings of key scholars in African American aesthetics, students will study symbolic forms and patterns from various African cultures throughout the Diaspora and investigate formal image categories within African Diaspora visual culture.

BLKS 351 African American Art History: Part I, 1600-1960 Credits: 3
This course presents a comprehensive survey of African American visual art from 1600 through 1960. Critical issues in early American art history highlight the expressions of African American artists and scholars. Students will investigate artistic expressions of this period.

BLKS 403WI Writing for African American Studies Credits: 3
This course instructs students in how to produce advanced knowledge in the field of African American studies. It provides training in the construction of quality research papers for graduate, scholarly, and professional work and exposes students to a wide array of scholarly journals, databases, and authoritative resources in African American studies. Each time the courses taught, students will develop their research around a specific topic defined by the instructor.

Prerequisites: RooWriter.

BLKS 404 Research Seminar Credits: 3
This course introduces the logic, theory, and techniques of empirical research and applies them to African American Studies. It exposes students to a variety of research approaches in order to examine their utility for producing knowledge within the field.

BLKS 410 African American Art History: Part II, 1960-Present Day Credits: 3
This course presents a survey of African American visual arts from 1960 to the present. Visual arts include new media and processes for Diaspora artists. Students investigate contemporary artists within African Diaspora visual culture.

BLKS 458 Slave Narratives: Race, Gender, and Writing Freedom Credits: 3
A truly American, home grown genre and powerful force in the development of American political and social realities, the African American Slave Narrative is an established, recognized influence in the development of African American and American literary history. In this course you will have the opportunity to explore the historical trajectory of the Slave Narrative, looking at early formulations of its structure, purpose and conventions—especially in terms of gender and race, subsequent various permutations, and the eventual development of the Neo-slave Narrative as its resurrection, which adds to the complexity and theoretical impact of the literary autobiography from black perspectives.

BLKS 480 Special Topics/Seminar Credits: 1-3
In-depth exploration of special topics in Black Studies. When available, topics will be announced prior to registration. Course may be repeated for up to six credit hours.

BLKS 490 Directed Study/Research Credits: 1-3
Individual research and learning projects supervised by a faculty member. Course may be repeated for up to six credit hours.

BLKS 496 Internship in Black Studies Credits: 1-3
This Internship course presents an opportunity for undergraduate students to integrate their academic studies in the discipline of Black Studies with community service and engagement. As a student intern within a business or professional organization in the urban Metropolitan community, the student gains critical information about the processes and procedures of this business entity in relation to African American community members.

Cello (CELLO)

Courses

CELLO 100A Preparatory Applied Study Credits: 2
One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

CELLO 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.
CELO 100C Applied Study for the Non-Music Major Credits: 2  
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

CELO 101 Freshman Cello I Credits: 2-4  
CELO 102 Freshman Cello II Credits: 2-4  
CELO 201 Sophomore Cello I Credits: 2-4  
CELO 202 Sophomore Cello II Credits: 2-4  
CELO 300 Studio Class Credits: 0  
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.  
**Co-requisites:** Enrollment in lessons.

CELO 301 Junior Cello I Credits: 2-4  
CELO 302 Junior Cello II Credits: 2-4  
CELO 401 Senior Cello I Credits: 2-4  
CELO 402 Senior Cello II Credits: 2-4

### Chemistry (CHEM)

#### Courses

CHEM 111 Physical Basis Of Chemistry Credits: 3  
An introductory course in the basic principles applicable to chemistry for students who intend to take but are not adequately prepared to take CHEM 211. The emphasis is on quantitative relationships and problem solving.

CHEM 115 Elements Of Chemistry I Credits: 4  
A one-term course in general chemistry with special emphasis on organic chemistry and biochemistry. A terminal course that does not meet requirements as a prerequisite for any higher level chemistry course.  
**Co-requisites:** CHEM 115L.

CHEM 115L Elements Of Chemistry, Laboratory I Credit: 1  
A one-term course in general chemistry with special emphasis on organic chemistry and biochemistry. A terminal course that does not meet requirements as a prerequisite for any higher level chemistry course.  
**Co-requisites:** CHEM 115.

CHEM 115L - MOTR CHEM 100L: Essentials in Chemistry with Lab

CHEM 160 Chemistry, Society, And The Environment Credits: 3  
This course is intended to offer a survey of chemical and scientific concepts surrounding current issues. The emphasis will be on the application of fundamental chemical knowledge to allow a full understanding of these issues in the context of currently known facts and theories. Through classroom discussion and application of the scientific method, the ramifications of the issues will be examined. Topics will include pollution, the importance of the chemical industry, its responsibilities to society, and other items of current scientific and environmental interest.  
CHEM 160 - MOTR CHEM 100L: Essentials in Chemistry with Lab

CHEM 160L Laboratory For Chemistry, Society, And The Environment Credit: 1  
This course is offered in support of CHEM 160. It will consist of field activities, experiments, and demonstrations to reinforce the concepts and ideas presented in that course.  
CHEM 160L - MOTR CHEM 100L: Essentials in Chemistry with Lab
CHEM 180P Basic Chemistry Credits: 4
A one-semester survey of basic chemistry including: atomic structure, the periodic table, chemical bonding, chemical reactions, and selected topics from organic, polymer and biochemistry. A terminal course that does not meet requirements as a prerequisite for any higher level chemistry course.
Prerequisites: MATH 110 or equivalent.
Corequisite: CHEM 181P.

Cross Listings: CHEM 115.

CHEM 180P - MOTR CHEM 100L: Essentials in Chemistry with Lab

CHEM 181P Experimental Basic Chemistry Credits: 4
A demonstration/laboratory course designed to support and illustrate the concepts presented in Chemistry 180P. A terminal course that does not meet requirements as a prerequisite for any higher level chemistry course.
Prerequisites: MATH 110 or equivalent.
Co-requisites: CHEM 180P.

Cross Listings: CHEM 115L.

CHEM 182P Special Projects In Chemistry Credits: 4
An independent study course consisting of library work and field work designed to exemplify various applied aspects of chemistry. A terminal course that does not meet requirements as a prerequisite for any higher level chemistry course.
Prerequisites: MATH 110 or equivalent.
Co-requisites: CHEM 180P.

CHEM 206 Human Nutrition Credits: 3
Introduction to nutrition for health and wellness and the use of chemical energy in the breakdown and synthesis of biomolecules. Nutrition as it applies to a variety of life situations from infancy to older adults. Learning encompasses elements of anatomy and physiology related to nutrition and health.
CHEM 206 - MOTR LIFS 100: Essentials in Human Biology

CHEM 211 General Chemistry I Credits: 4
Stoichiometry, gas laws, thermochemistry, atomic structure, molecular shapes and bonding theories. Recommended preparation: working knowledge of College Algebra.
Co-requisites: CHEM 211L.
CHEM 211 - MOTR CHEM 150L: Chemistry I with Lab

CHEM 211L Experimental General Chemistry I Credit: 1
Introduction to the laboratory techniques used in studying the chemical properties of substances. Some quantitative techniques are included.
Co-requisites: CHEM 211.
CHEM 211L - MOTR CHEM 150L: Chemistry I with Lab

CHEM 212LR Experimental General Chemistry II Credit: 1
Introduction to analysis and synthesis. Descriptive chemistry of the more common elements.
Co-requisites: CHEM 212R.
CHEM 212R General Chemistry II Credits: 4
Liquids and solids, solutions, equilibrium, kinetics, electrochemistry and thermodynamics. Introductory course to all advanced work in chemistry.
Prerequisites: CHEM 211 and CHEM 211L (each with a C- or better).
Co-requisites: CHEM 212LR.
CHEM 2YC Chemistry Elective LE Credits: 99
Transfer credit

CHEM 311 Laboratory Safety And Health I Credit: 1
An introduction to laboratory safety and health. Topics to be discussed include good laboratory practice; laboratory hazards; safe chemical handling, storage and disposal; first aid; protective equipment; and federal regulations.

Prerequisites: CHEM 320 or CHEM 321.

CHEM 320 Elementary Organic Chemistry Credits: 4
This one-semester course covers all fundamental principles of organic chemistry, including modern bonding theory, analytical techniques, physical properties, and chemical reactions. This course is designed to satisfy requirements for students in the UMKC Six-Year Medical Program or certain Biology B.A. majors. This course is not recommended for pre-medical, pre-dental, pre-pharmacy or other pre-health students.

Prerequisites: CHEM 212R and CHEM 212LR (each with a C- or better).

Co-requisites: CHEM 320L.

CHEM 320L Experimental Organic Chemistry Credit: 1
Elementary organic chemistry experiments to teach basic laboratory operations.

Co-requisites: CHEM 320.

CHEM 321 Organic Chemistry I Credit: 3
The two terms (CHEM 321, CHEM 322R) constitute an integrated unit in which the chemistry of aliphatic, aromatic, and some heterocyclic compounds are studied. The study begins with simple monofunctional compounds and ends with polyfunctional natural products.

Prerequisites: CHEM 212R and CHEM 212LR (each with a C- or better).

Co-requisites: CHEM 321.

CHEM 321L Organic Chemistry Laboratory I Credit: 1
Introduces the student to basic techniques and procedures in isolation, purification, and characterization of organic compounds and simple reactions used in the organic chemistry laboratory. The student will also be trained in the proper way to write a scientific laboratory report.

Co-requisites: CHEM 321.

CHEM 322L Organic Chemistry Laboratory II Credit: 1
CHEM 322L is an extension of CHEM 321L. CHEM 322L builds from the basic techniques, procedures, and writing to more advanced organic operations.

Prerequisites: CHEM 321 and CHEM 321L (or equivalents; each with a C- or better).

Co-requisites: CHEM 322R.

CHEM 322R Organic Chemistry II Credits: 3
Continuation of CHEM 321.

Prerequisites: CHEM 321 and CHEM 321L (each with a C- or better).

Co-requisites: CHEM 322L.

CHEM 330 Elementary Physical Chemistry Credits: 3
An introductory course in the principles of physical chemistry for students who have not had calculus.

Prerequisites: CHEM 220 or CHEM 250; CHEM 320 or CHEM 322R (each with a C- or better).

CHEM 341 Analytical Chemistry I: Quantitative Analysis Credits: 4
Principles of gravimetric, volumetric, electrolytic, and other methods of analysis.

Prerequisites: CHEM 212R (with a C- or better).

CHEM 341WI Analytical Chemistry I: Quantitative Analysis Credits: 4
Principles of gravimetric, volumetric, electrolytic, and other methods of analysis.

Prerequisites: CHEM 212R and CHEM 212LR (each with a C- or better), RooWriter.

CHEM 345R Instrumental Analysis Credits: 3
An introductory course on the use of instruments for chemical analysis with particular reference to applications of interest to medical technologists and other students in the sciences. Emphasis will be placed on optical, electrochemical and separation methods.

Prerequisites: CHEM 341 or CHEM 341WI (with a C- or better).

CHEM 367 Bioorganic Chemistry Credits: 3
An examination into the current topics at the interface between chemistry and biology. Emphasis will be on the current literature and will include such topics as nucleic acid chemistry, protein chemistry, and carbohydrate chemistry.

Prerequisites: CHEM 322R and CHEM 322L (each with a C- or better).
CHEM 382 Inorganic And Organic Synthesis Credits: 2
A number of inorganic, organic, and organometallic compounds will be prepared using a variety of synthetic techniques.
Prerequisites: CHEM 322R and CHEM 322L (each with a C- or better).

CHEM 387 Environmental Chemistry I Credits: 3
A survey of how chemical principles can be applied to the environment. Included will be topics in aquatic chemistry, atmospheric chemistry and chemistry of the geosphere and soil.
Prerequisites: CHEM 320 or CHEM 322R (with a C- or better).

CHEM 390 Special Topics In Chemistry Credits: 1-3
This course will focus on an area of chemistry of contemporary significance. The amount of credit is to be determined by arrangement with the department. May be repeated for credit when the topic varies but no more than three hours of credit may be applied to major course requirements.
Prerequisites: CHEM 320 and CHEM 322R (each with a C- or better).

CHEM 390PT Special Topics In Chemistry Credits: 1-3
CHEM 392 Chemistry Internship/Practical Training Credits: 1-3
Practical work in chemistry in an industrial, academic or other professional setting. Prior to the start of work, the department must approve the internship/practical training.
Prerequisites: CHEM 212R and CHEM 212LR (each with a C- or better).

CHEM 395 Directed Readings In Chemistry Credits: 1-3
Intensive readings in areas of joint interest to the enrolled student and the cooperating faculty member. Readings may not duplicate or substitute for current course offerings.
Prerequisites: CHEM 322R and CHEM 322L (each with a C- or better).

CHEM 410 Chemical Literature Credit: 1
A systematic introduction to the efficient use of the chemical literature. Topics will include both classical search methods and computer search methods.
Prerequisites: CHEM 322R and CHEM 322L (each with a C- or better).

CHEM 431 Physical Chemistry I Credits: 3
A first course in physical chemistry having a calculus base. This course emphasizes thermodynamics with an introduction to the basic principles of quantum mechanics.
Prerequisites: MATH 250; and PHYSICS 220 or PHYSICS 250.

CHEM 432 Physical Chemistry II Credits: 3
A second course in physical chemistry having a calculus base. This course emphasizes the quantum mechanics description of atoms and molecules, molecular spectroscopy, statistical mechanics, and kinetics.
Prerequisites: MATH 250; and PHYSICS 220 or PHYSICS 250; and CHEM 431 (each with a C- or better).
Co-requisites: CHEM 437WI.

CHEM 434 Molecular Spectroscopy Credits: 3
A theoretical introduction to molecular spectroscopy and its relation to structure. Electronic, vibrational and rotational spectra of chemical systems will be discussed.
Prerequisites: CHEM 432 (with a C- or better).

CHEM 437WI Experimental Physical Chemistry I Credits: 3
Experimental methods in physical chemistry. One hour lecture and six hours laboratory each week. Satisfies writing intensive requirements for the B.A. or B.S. degree.
Prerequisites: RooWriter.
Co-requisites: CHEM 432.

CHEM 442R Analytical Chemistry II: Instrumental Analysis Credits: 3
A continuation of CHEM 341. The experimental and theoretical aspects of optical and electrochemical, chromatographic and other physicochemical methods of analysis.
Prerequisites: CHEM 341 or CHEM 341WI (with a C- or better).
CHEM 445 Introduction To Principles Of Forensic Investigation Credits: 2
A survey of the physicochemical forensic techniques employed in the detection, examination, processing, preservation and court presentation of evidence.
Prerequisites: CHEM 212R and CHEM 212LR (each with a C- or better).

CHEM 451R Inorganic Chemistry Credits: 3
Modern concepts and theories of inorganic chemistry.
Prerequisites: CHEM 431 (with a C- or better).

CHEM 471 Introduction To Polymer Chemistry Credits: 3
Survey of organic and inorganic monomers and polymers: the occurrence, synthesis, structures and properties of natural and synthetic polymers; discussion of general properties of plastics, elastomers, fibers, resins, and plasticizers.
Prerequisites: CHEM 320 and CHEM 320L or CHEM 322R and CHEM 322L (each with a C- or better).

CHEM 480 Computer Applications To Chemical Problems Credits: 3
The course will survey the field of computational chemistry, concentrating on methods, programs and general utility to the research chemist. The student will learn the principles of the theory underlying the methods and will use selected software to carry out chemical calculations.
Prerequisites: CHEM 322R and 322L (with C- or better).

CHEM 490 Special Topics In Chemistry Credits: 1-3
This course will focus on an area of chemistry of contemporary significance. The amount of credit is to be determined by arrangement with the department. May be repeated for credit when the topic varies but no more than three hours of credit may be applied to major course requirements.
Prerequisites: CHEM 431 (with a C- or better).

CHEM 495 Directed Readings In Chemistry Credits: 1-3
Intensive readings in areas of joint interest to the enrolled student and the cooperating faculty member. Readings may not duplicate or substitute for current course offerings.
Prerequisites: CHEM 431 (with a C- or better).

CHEM 499 Senior Research Credits: 1-9
The student is given an original research problem and will be held responsible for all previous experience in working toward its solution. A well-written, comprehensive, and well documented research report is required, and a copy of the report is to be retained in the Chemistry department.
Prerequisites: CHEM 431 (with a C- or better).

CHEM H206 Human Nutrition Credits: 3
Introduction to nutrition for health and wellness and the use of chemical energy in the breakdown and synthesis of biomolecules. Nutrition as it applies to a variety of life situations from infancy to older adults. Learning encompasses elements of anatomy and physiology related to nutrition and health.

CHEM H212R Honors: General Chemistry II Credits: 4
Liquids and solids, solutions, equilibrium, kinetics, electrochemistry and thermodynamics. Introductory course to all advanced work in chemistry.

CHEM H321 Honors: Organic Chemistry I Credits: 3
The two terms (CHEM H321, CHEM H322R) constitute an integrated unit in which the chemistry of aliphatic, aromatic, and some heterocyclic compounds are studied. The study begins with simple monofunctional compounds and ends with polyfunctional natural products.

CHEM H321L Organic Chemistry Laboratory I - Honors Credit: 1
Introduces the student to basic techniques and procedures in isolation, purification, and characterization of organic compounds and simple reactions used in the organic chemistry laboratory. The student will also be trained in the proper way to write a scientific laboratory report.

CHEM H322L Organic Chemistry Laboratory II Credit: 1
An extension of CHEM 321L. This course builds from the basic techniques, procedures, and writing to more advanced organic operations.
Prerequisites: CHEM 321 and CHEM 321L (each with a C- or better).
Co-requisites: CHEM 322R.

CHEM H322LR Organic Chemistry Laboratory II-Honors Credits: 2
A more intense version of CHEM 322L. See course description for CHEM 322L.
Prerequisite: CHEM 321L.

CHEM H322R Honors: Organic Chemistry II Credits: 3
Special problems to introduce undergraduate chemistry majors to research methods. A comprehensive written report is required and a copy of the report is to be retained in the chemistry office. May be taken only after consultation with a member of the chemistry staff.
Prerequisites: CHEM 212R.
Civil Engineering (CIV-ENGR)

Courses

CIV-ENGR 111 First Year Cornerstone Credits: 3
An exploration of the diverse emphasis specific career opportunities of Civil Engineers, with a goal of providing students the needed fundamental skills, knowledge and resources for identifying the most appropriate career path(s) consistent with the student’s interests, skills, and objectives.

CIV-ENGR 190 Special Topics Credits: 1-3
Selected introductory topics in the area of computing. May be repeated for credit when topic varies.

CIV-ENGR 211 The Engineering Enterprise Credits: 3
The engineering enterprise course covers the essential topic of engineering economics for engineering students. The primary objective of this course is to motivate the student to think as a blend of an engineer and a businessperson to make them more effective decision makers related to engineering applications.

CIV-ENGR 275 Engineering Statics Credits: 3
Fundamentals of statics; static equilibrium; internal forces; introduction to elements of mechanics of elastic materials, and properties of areas.
Prerequisites: PHYSICS 240.

CIV-ENGR 276 Strength Of Materials Credits: 3
The course introduces and emphasizes the concepts and analysis methods for stress and strain, torsion, bending and shear stresses in beams, combined stresses, and deflection theory using a calculus based methodology. Introduction to buckling and energy methods may be included.
Prerequisites: CIV-ENGR 275.

CIV-ENGR 318 GIS for Engineers Credits: 3
This course covers the fundamental concepts and methods for use of GIS software used to solve engineering applications and problems. The course uses module based practical learning to apply and integrate foundational knowledge, develop the skills required to model various types of imagery data, incorporate this data into projects for management and design, and provide the skills necessary for students to depict ideas and design graphically. A personal computer capable of running the software is required for the course. Non-engineering majors by instructor permission only.
Prerequisites: MEC-ENGR 130 and CIV-ENGR 319.

CIV-ENGR 319 Engineering Computation and Statistics Credits: 3
A review of descriptive statistics, statistical distribution functions and application to engineering problems. Introduction to hypothesis testing, analysis of variance, correlation/regression and design of factorial experiments.
Prerequisites: MEC-ENGR 219 (or corequisite), and MATH 268.

CIV-ENGR 320 Introduction to Factorial Design Credit: 1
Concepts and techniques of ANOVA and factorial design to supplement standard undergraduate statistics courses. Recommended preparation: Undergraduate statistics course.

CIV-ENGR 321 Structural Analysis Credits: 4
This course introduces the basic analysis and computer methods that are required to analyze basic structural elements and simple structures. Topics covered in this course include design loads, analysis of statically determinate beams, frames and trusses, shear and moment diagrams, influence diagrams, beam deflections, statically indeterminate structures (beams and frames), displacement methods, introduction to energy and matrix methods.
Prerequisites: CIV-ENGR 276.

CIV-ENGR 323 Structural Steel Design Credits: 3
Basic principles of structural steel design. Design of beams, axially loaded members, columns, and bolted and welded connections.
Prerequisites: CIV-ENGR 321.

CIV-ENGR 335 Soil Mechanics Credits: 3
Detailed study of physical and mechanical properties of soil governing its behavior as an engineering material.
Prerequisites: CIV-ENGR 276, CHEM 211, CHEM 211L, Machine Shop Safety.

CIV-ENGR 342 Water and Wastewater Treatment Processes Credits: 3
Methods for determining and characterizing water quality, effects of pollution on streams and lakes, and an introduction to engineering systems for the distribution, collection and treatment of water and wastewater.
Prerequisites: CIV-ENGR 351, CHEM 211 and CHEM 211L.
CIV-ENGR 351 Fluid Mechanics Credits: 3
Concepts of the statics and dynamics of fluids, with emphasis on principles of continuity, momentum and energy. Boundary layers, dimensional analysis and drag are covered briefly. Thorough treatment of pipe flow.
Prerequisites: MATH 345 or MEC-ENGR 272, MEC-ENGR 285.

CIV-ENGR 357 Engineering Hydraulics Credits: 3
Analysis and design of closed conduit systems for water supply; fundamentals of open channel flow; principles of pumping and hydropower generation; transients and control of surge pressures in pipelines.
Prerequisites: CIV-ENGR 351.

CIV-ENGR 378WI Civil Engineering Materials Credits: 3
This course provides students with a working knowledge of the design and performance of Asphaltic Concrete (AC) and Portland Cement Concrete (PCC) mixtures through understanding the properties and requirements of the component materials and their effects on subsequent performance. An understanding of the design, production process, construction, durability, and operations and maintenance will be provided. A significant portion of this course requires hands-on laboratory testing and analysis. Roadway and highway pavements will provide a primary context within which these concrete systems will be studied. This course is classified as writing intensive (WI) will involve a significant amount of writing practice to be able to effectively communicate in a manner fitting a young engineering graduate of UMKC.
Prerequisites: CHEM 211, CHEM 211L, CIV-ENGR 276, Machine Shop Safety, RooWriter.

CIV-ENGR 390 Engineering Coop/Internship Credits: 0
Students may participate in structured Engineering Coop/Internship under the supervision of employer. They must carry out significant professional responsibilities and whatever additional assignments are determined by the employer.
Prerequisites: CIV-ENGR 211, MEC-ENGR 285.

CIV-ENGR 3EP UL Civil Engineering Elective Credits: 99
Transfer credit

CIV-ENGR 400 Problems Credits: 1-4
Directed investigation of civil engineering problems.

CIV-ENGR 401ES Special Topics in Civil Engineering Credits: 3
Prerequisites: CIV-ENGR 335.

CIV-ENGR 401HA Hydrologic Analysis and Design Credits: 3
Practical implementation of hydrologic and hydraulic system design in accordance with published design criteria and using methods and numerical modeling accepted by local, state, and national government agencies.
Prerequisites: CIV-ENGR 357.

CIV-ENGR 401J Project Finance Credits: 1-3
This class introduces students to the financial concepts faced by engineers in the businesses in which they work and for the projects to which they are assigned. Throughout the course students are reminded of the impact of two key variables – money and time – on their work. While not attempting to turn good engineers into mediocre accountants, the course includes a strong emphasis on managerial accounting. Students will learn how to read and apply financial statements and how to use these same financial concepts in developing pro formas to evaluate and support major capital investments. The effect of time on the value of money, appropriate discount factors, and the internal rate of return will be explored in the class. Students will learn to combine these financial factors with electronic spreadsheets to evaluate business opportunities and practices. All students will be required to develop a comprehensive financial model to evaluate/justify a real world capital project.

CIV-ENGR 401PM Project Management of Integrated Design and Construction Credits: 3
Provide a body of knowledge that includes the principles, knowledge areas, skills, and tools applicable to successful project management for the performance of integrated design and construction of capital projects, specifically as applicable to the post-award period. This post-award period is the time from the formal Project award by the owner through Project design and construction, testing, commissioning, close-out and completion of the Project warranties.

CIV-ENGR 401SD Special Topics in Civil Engineering Credits: 3
Study of soil behavior under cyclic and dynamic loading conditions. Foundation design for vibratory loadings. Introductory earthquake engineering including dynamic ground response for determination of dynamic soil properties. Evaluation of soil liquefaction potential during earthquakes by both laboratory and in situ filed methods. Design consideration for embankments and earth retaining structures under seismic loading conditions. Construction blasting and vibration effects on underground systems.
Prerequisites: CIV-ENGR 335.

CIV-ENGR 401SV Topics in Civil Engineering Credit: 1
This course provides a fundamental introduction to the elements of surveying. Basics including terminology, coordinate systems, equipment, legal descriptions, and calculations will be taught in the classroom. Field laboratory sessions will introduce the students to setting up basic equipment, running a level loop, and laying out a site based on plan designs.
CIV-ENGR 404 Project Management of Integrated Design and Construction Credits: 3
Provide a body of knowledge that includes the principles, knowledge areas, skills, and tools applicable to successful project management for the performance of integrated design and construction of capital projects, specifically as applicable to the post-award period. This post-award period is the time from the formal project award by the owner through project design and construction, testing, commissioning, close-out and completion of the project warranties.

CIV-ENGR 405 Capital Project Delivery Methods Credits: 3
Provide a body of knowledge that acquaints students with the capital project delivery methods in both public and private business sectors of the U.S design – construction industry. Project delivery means how a capital project comprising both design and construction is planned, procured, contracted and implemented by an owner to achieve desired objectives. Delivery methods discussed in this class include traditional design – bid, build, design – build, design-build plus added services such as operations and maintenance, CM @ Risk and other approaches. Roles and responsibilities of owners, owner consultants, and design and construction firms are presented and discussed.

CIV-ENGR 409 Fundamentals of Engineering Review Credit: 1
This course consists of a series of lectures and is intended as a review class for all the subjects included in the Fundamentals of Engineering exam. Classes specifically focus on the review of equations and formulas included in the reference handbook published by NCEES.

CIV-ENGR 411 Civil Engineering Systems Design I Credits: 2
Comprehensive and realistic design project using the systems approach. Design choices and their effect upon the environment. Design constraints include constructability, minimization of environmental impact and cost-effectiveness. Managerial and professional aspects of design practice. Prerequisites: CIV-ENGR 497.

Co-requisite: CIV-ENGR 422WI.

CIV-ENGR 412 Civil Engineering Systems Design II Credits: 3
Continuation of CIV-ENGR 411. Prerequisites: CIV-ENGR 411, RooWriter.

CIV-ENGR 415 Engineering Leadership and Ethics Credits: 3
Analysis of leadership, including 360-degree assessment of students' leadership. Discussion of leadership cases and application to engineering careers. Frequent analysis of engineering ethics cases using the NSPE Code.

CIV-ENGR 421 Matrix Methods of Structural Analysis Credits: 3
The basic components of this class are matrix theories and applied computer analysis methods using a computer-based structural analysis software. These include: (1) study of matrix formulation of direct stiffness method, virtual work principle and formulation of displacement-based frame elements, theories and significance of geometric and material nonlinearity; (2) Sap2000-based analysis of 2D/3D trusses and 2D/3D frames considering different loading and material/geometric nonlinearity. Prerequisites: CIV-ENGR 321.

CIV-ENGR 422WI Reinforced Concrete Design Credits: 3

CIV-ENGR 423 Advanced Structural Steel Design Credits: 3
Design of steel structures and bridges. Topics include composite beams, plate girder design, and moment resistant connections. Prerequisites: CIV-ENGR 323.

CIV-ENGR 425 Prestressed Concrete Structures Credits: 3
Design and behavior of prestressed concrete structures; material and system of pretensioned and post tensioned systems; prestress losses; flexure, shear, bond, deflections and partial prestress in determinate structures; indeterminate beams-introduction. Prerequisites: CIV-ENGR 422WI.

CIV-ENGR 427 Advanced Reinforced Concrete Design Credits: 3
Advanced topics in the design of footings, retaining walls, two-way floor slabs, torsion and continuous structures, shear friction, strut and tie design, precast design. Prerequisites: CIV-ENGR 422WI.

CIV-ENGR 429 Design of Structures for Blast and Fire Credits: 3
General overview of Blast Design; risk assessment and design criteria; simplifies Blast Effects Analysis; ground shock, material response; antiterrorism design considerations; weapons effects and mitigation; internal explosions; progressive collapse analysis; and introduction to Fire Design.
CIV-ENGR 431 Fundamentals of Geomaterial Characterization Credits: 3
A geomaterial is any construction material comprised primarily of soil. This course overviews state-of-the-art instrumental techniques for analysis of the physio-chemical properties of soils, aggregates, hydraulic concrete, and asphaltic concrete. Evaluation techniques will be applied to determining beneficial reuse opportunities for industrial by-product materials from the Kansas City region.
Prerequisites: CIV-ENGR 335, CIV-ENGR 378WI.

CIV-ENGR 432 Foundation Engineering Credits: 3
Design of basic foundation structures, footings, retaining walls, pile foundations, dams.
Prerequisites: CIV-ENGR 335.

CIV-ENGR 436 Advanced Soil Mechanics Credits: 3
Theoretical soil mechanics as applied to solution of specific engineering problems.
Prerequisites: CIV-ENGR 335.

CIV-ENGR 442 Hydraulic Structures Credits: 3
A review of the history and hydraulic design procedures for a variety of hydraulic structures including spillways, water measurement structures, canal structures and energy dissipation structures.
Prerequisites: CIV-ENGR 452.

CIV-ENGR 446 Limnology Credits: 3
Physical, biological and chemical issues important in surface fresh waters. Includes carbonate chemistry, algal assay and thermocline analysis.
Prerequisites: CHEM 211, MATH 345.

CIV-ENGR 447 Contracts and Law for Engineers Credits: 3
This course covers a broad range of substantive legal topics giving the student a grounding in the legal implications of certain situations that they may encounter during their careers. The course includes coverage of basic contract law, environmental regulations and compliance, construction law, antitrust law, intellectual property law, civil procedure, employment law, business entities (corporate law) product liability and criminal law and procedure. The objective of the course is to provide students with a fundamental understanding of the wide range of federal and state laws governing behavior in our complicated and rule of law driven society.

CIV-ENGR 449 Environmental Compliance, Auditing and Permitting Credits: 3
This course provides a high level overview of the most important statutes that have been enacted to protect the environment. The course covers regulation of hazardous waste, the Clean Air and Clean Water Acts, the Resource Conservation and Recovery Act, the All Appropriate Inquiry Rule and the law addressing sites contaminated with hazardous substances and the technology options employed to remediate those sites. In addition, the course provides coverage of environmental audits and emergency planning for extremely hazardous substances, the regulation of underground storage tanks, safe drinking water and the National Environmental Policy Act among other statutes.

CIV-ENGR 452 Hydraulics of Open Channels Credits: 3
This is a first course in the fundamentals of open channel (free surface) water flow. Over ninety-nine percent of all the water that is moved on the planet’s surface is by free surface flow. Study of free surface flow is essential to the study of storm water drainage systems, flood control, water and wastewater treatment and the study of the form and processes of river evolution. This class provides the fundamental physical principles of free surface flow as a prelude to a significant number of other topics that pertain to engineering and geomorphic analysis.
Prerequisites: CIV-ENGR 351.

CIV-ENGR 453 Hydraulics and Variability of Rivers Credits: 3
Introduction to the concepts of alluvial channel behavior, evolution and change due to natural and man-induced modifications to streams and watersheds. Numerous case studies of river behavior are studied from the perspective of hydraulics, geomorphology and sediment transport.
Prerequisites: CIV-ENGR 357.

CIV-ENGR 454 River Stability and Scour Credits: 3
Bridge hydraulics, stream stability, scour at bridge piers and abutments, hydraulic modeling of floods, countermeasures for protection of bridge infrastructure.
Prerequisites: CIV-ENGR 452.

CIV-ENGR 456 Urban Hydrology Credits: 3
Analysis of urban drainage systems in accordance with published municipal criteria. This course is an in-depth course for senior undergraduate students interested in the hydrological sciences and for graduate students specializing in water resources. Specifically this course will focus on the engineering procedures and techniques specified by municipalities to design and maintain efficient, safe, storm drainage systems. This course also focuses on the unique issues associated with estimating and designing for rainfall/runoff in urban metropolitan areas, including channel and reservoir routing of floods through stream channels, retention structures, culverts, and storm sewers.
Prerequisites: CIV-ENGR 357.
CIV-ENGR 463 The Engineer in Society Credits: 3
This course introduces professional, ethical, and legal concepts of the professional practice of engineering, and the role of the consulting engineer, specifically in the A/E/C industry during the design, procurement, and construction processes. A conceptual framework is developed for understanding the industry standard agreements (AIA, EJCDC, ConCensus) and the various participants roles and duties in project execution. The engineer's "professional standard of care" is examined and revisited throughout the semester, specifically what it means to be a "Professional Engineer". Emphasis is placed on project and contract management and the applicable law. Skills are developed in finding online resources of law, legal, and practice advice relevant to the practice of engineering and the construction industry.

CIV-ENGR 466 Green Building and Sustainable Infrastructure Credits: 3
This class will discuss various green rating systems for buildings and infrastructure. Upon completion of this course students will be prepared for the LEED Green Associate Exam. The course will also discuss infrastructure project sustainability from a life cycle perspective. A semester project will involve stormwater management using "green" techniques and methods to mitigate the urban heat island. Upon completion of the course, students will better understand what sustainability means and how it applies in the context of our built environment and have a good idea of how technology will impact our sustainable future.

**Prerequisites:** Junior standing.

CIV-ENGR 467 Introduction to Construction Management Credits: 3
Structure of the construction industry; construction drawings and specifications; estimating and bidding; construction contracts, bonds and insurance; planning and scheduling of construction operations; project management; computer techniques.

**Prerequisites:** MATH 345.

CIV-ENGR 468 Construction Planning and Scheduling Credits: 3
This course is intended to provide an in-depth examination of the construction planning and scheduling process, as it relates to civil engineering projects. Topics will include planning and scheduling of construction operations by the critical path method, Network diagramming, scheduling computations, and time-cost trade-offs. Manpower and equipment leveling. Computer and noncomputer techniques.

**Prerequisites:** CIV-ENGR 467.

CIV-ENGR 469 Construction Methods and Equipment Credits: 3
Introduction to methods used to plan, construct, and manage heavy civil projects. Topics will include development, project control, equipment productivity, earthmoving fundamentals, formwork design, and other issues in heavy civil projects.

**Prerequisite:** CIV-ENGR 467.

CIV-ENGR 470 Corrosion Engineering Credits: 3
This course will cover the physical interaction of metallic materials with their environments, called corrosion. Corrosion is an electrochemical process and the thermodynamics and kinetics of corrosion processes will be discussed. Students will be expected to identify different forms of corrosion and be able to select appropriate materials for their working environment to prevent corrosion related problems. Second half of the class will concentrate on corrosion of metals in concrete and prevention methods.

**Prerequisites:** CHEM 211, CHEM 211L, CIV-ENGR 378WI.

CIV-ENGR 471 Advanced Portland Cement Concrete Credits: 3
This course will cover topics such as cement chemistry, concrete proportioning, aggregates, mineral and chemical admixtures, fresh and hardened properties of concrete, and durability of concrete. Design and proportioning of concrete mixtures for desired fresh and hardened properties will be emphasized. Specialty concrete types such as high strength/high performance concrete, lightweight concrete, pervious concrete, high volume fly ash concrete, and fiber reinforced concrete will also be covered.

**Prerequisites:** CHEM 211, CHEM 211L, CIV-ENGR 378WI.

CIV-ENGR 473 Durability of Civil Engineering Materials Credits: 3
This course will explore the identification, causes of, and remediation of material-related durability deterioration in civil engineering projects. The primary focus will be on reinforced concrete, plain concrete, and soil for a variety of applications. Course content will be delivered primarily through laboratory activities and handouts. Lab activities will use advanced analysis techniques and help the students identify and measure deterioration mechanisms. Various non-destructive evaluation techniques will be discussed. Students have hands on experiences with samples production, data collection, and data analysis for all of the lab activities.

**Prerequisites:** CIV-ENGR 335, CIV-ENGR 378WI.

CIV-ENGR 475 Seismic Design of Structures Credits: 3
Introduction to basic analysis and design principles for the seismic design of buildings (concrete, steel, wood). General seismic principles, codes and loads, static lateral force procedure, dynamic lateral force procedure, topics in rigidities of buildings.

**Prerequisites:** CIV-ENGR 323 (or CIV-ENGR 422WI), MEC-ENGR 285.

CIV-ENGR 481 Highway and Traffic Engineering Credits: 3
Principles of highway engineering and traffic analysis, road/vehicle performance, geometric alignment of highways, traffic analysis and queuing theory, signal design, statistical analysis of traffic data and highway drainage.

**Prerequisites:** MEC-ENGR 285.
CIV-ENGR 484 Pavement Materials Design, Maintenance, and Rehabilitation Credits: 3
Traffic loading and volume, stress and deflection, characterization of pavement materials, design of flexible and rigid pavements, design of overlays, evaluation of pavement performance, maintenance techniques, and rehabilitation options.
Prerequisites: CIV-ENGR 335, CIV-ENGR 378WI.

CIV-ENGR 487 Applied Finite Element Analysis Credits: 3
The study of advanced simulation techniques for the solution to engineering problems. The use of Finite Element Method toward solving mechanical, structural, vibration and potential flow problems will be explored. Current commercial simulation tools will be used extensively.
Prerequisites: MEC-ENGR 272 and MEC-ENGR 130.

CIV-ENGR 491 Internship Credits: 6
For International students who must register to cover off-campus employment which is approved as related to their degree by their departmental advisor and ISAO.

CIV-ENGR 497 Engineering Hydrology Credits: 3
Fundamental concepts of hydrology in engineering; computation principles of runoff from rainfall; measurement of hydrologic quantities; quantitative and statistical estimation of design stream-flow magnitude and frequency; principles of unsteady routing of hydrographs.
Prerequisites: CIV-ENGR 319, CIV-ENGR 351.

Clarinet (CLARINET)

Courses
CLARINET 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

CLARINET 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

CLARINET 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

CLARINET 101 Freshman Clarinet I Credits: 2-4
CLARINET 102 Freshman Clarinet II Credits: 2-4

CLARINET 201 Sophomore Clarinet I Credits: 2-4
CLARINET 202 Sophomore Clarinet II Credits: 2-4
CLARINET 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Co-requisites: Enrollment in lessons.

Cross Listings: CLARINET 5300.

CLARINET 301 Junior Clarinet I Credits: 2-4
CLARINET 302 Junior Clarinet II Credits: 2-4
CLARINET 401 Senior Clarinet I Credits: 2-4
CLARINET 402 Senior Clarinet II Credits: 2-4

Classics (CLASSICS)

Courses
CLASSICS 119 Myth and Literature Credits: 3
A study of classical myth including readings from Homer to Ovid, analysis of selected myths in later literature, art, and music, and a study of contemporary definitions and approaches to myth.
Cross Listings: ENGLISH 119.

CLASSICS 120 Literary Monstrosities Credits: 3
This course explores representations of monsters in literature. Students are introduced to different ways of thinking about monstrosities from a range of cultural and historical perspectives, as well as through a variety of materials in order to approach this question from an interdisciplinary perspective.
Cross Listings: ENGLISH 120.
CLASSICS 131 Seven Wonders and Beyond: Archaeological Wonders of the Ancient World Credits: 3
This is a survey of the archaeology of Egypt and the Near East, the Aegean cultures of Crete and Mycenae, and the world of classical Greece and Italy. In addition, archaeological wonders of Europe and the New World will be discussed.

CLASSICS 210 Foundations Of Ancient World Literature I Credits: 3
This course studies ancient world literature such as The Descent of Inanna, Egyptian love poetry, Hebrew Scriptures, the epics of Homer and Virgil, the Analects of Confucius, and the wisdom of Laozi. The course also considers ancient creation epics such as the cosmic battle between Marduk and Tiamat, the Metamorphosis of Ovid, and the great Indian epic The Ramayana.

CLASSICS 210 - MOTR LITR 200: World Literature

CLASSICS 300 Special Topics Credits: 1-3
A course about a selected field, genre or individual figure from the ancient world that is not part of the program's regular offerings. May be repeated for credit.

CLASSICS 300A Special Topics Credits: 1-3
A course about a selected field, genre or individual figure from the ancient world that is not part of the program's regular offerings. May be repeated for credit.

CLASSICS 300CB Women In The Ancient World Credits: 3
This course focuses on the history, representation, literature, social lives, and political roles of women in ancient civilization including Egypt, Mesopotamia, the Biblical World, Greece, and Rome. It integrates methodologies from history, art history and archaeology, literary studies, and women's studies.

CLASSICS 300CY Ancient World in Cinema Credits: 3
This course will explore the tradition of depicting the ancient Mediterranean world in film from the early silent era to the present. Topics to be covered include the ways that filmmakers respond to literary and historical sources from the ancient world, interact with the artistic tradition of films about the ancient world, the relation of these films to other works by the same creative personnel (directors, actors, writers, producers, etc.), and the political and cultural contexts in which the films were released.

CLASSICS 300CZ Archaeology Of Ancient Disasters Credits: 3
Remarkable human achievements are revealed by archaeological research, but the human past was frequently shaped as well by disasters of natural and human origin. Drawing on case studies that include data from the geosciences, archaeological excavations, and historical sources, this class examines how earth processes, the biosphere, and human cultural behavior were all sources of catastrophe. We begin with the geological context of disaster, including earthquakes, volcanic eruptions, climate change, and soil depletion. Next, we examine how ancient societies respond to disease, an ever present threat from the biological environment. Finally, we look at how ancient human groups were changed by stresses of cultural origin, including overpopulation, depletion of vital resources, and warfare. The study of ancient disasters not only gives us a wider understanding of human history, it may offer lessons for coping with future catastrophes.

CLASSICS 318 Bible As Literature Credits: 3
A critical study of the major portions of the Old and New Testaments and the Apocrypha, with special attention to the development of literature from oral tradition, the literary genres, themes and archetypes represented in the collection, and the diction and style which have influenced later literature. Consideration also of the relation of Biblical literature to the historical, religious, and cultural milieu of the ancient Near East.

Cross Listings: ENGLISH 318.

CLASSICS 340AWI Classical Literature In Translation Credits: 3
This course will focus on representative authors and works from the Greek and Roman Classical periods, such as Homer, Sophocles, Euripides, Aeschylus, Aristophanes, Plato, the Greek Lyrics, Virgil, Horace, Juvenal, Ovid and Plautus.

Prerequisites: RooWriter.

CLASSICS 369 Introduction to Prehistoric and Classical Archaeology Credits: 3
An introduction to archaeological research methods that traces human origins and cultural development from the earliest fossil evidence to the threshold of written history and civilization. This class emphasizes the evolutionary and cultural developments that allowed our ancestors to colonize the continents and develop lifeways involving hunting and gathering, farming and urbanism.

CLASSICS 370 Archaeology as Anthropology: The Development of Human Societies Credits: 3
This class examines the development of archaeology as a distinctive branch of anthropology, and archaeology's role in a centuries-long debate about the causes of cultural variation and the development of human societies. This class examines how the Enlightenment, colonialism, the geological discovery of Deep Time and the Darwinian Revolution not only give rise to anthropology and archaeology, but launched an enduring debate about how and why we study cultural behavior.

Cross Listings: ANTHRO 385.
CLASSICS 376 Concepts of the Hero in Ancient Literature and World Cinema Credits: 3
This course explores how concepts of heroism are related to the principles of values and civic duty in a wide range of ancient world cultures and contemporary world cinemas. Students will also demonstrate an understanding of how these values impact individual heroes and their interactions with others in their society.

Cross Listings: ENGLISH 376, COMM-ST 323.

CLASSICS 384 Frauds, Myths and Mysteries in Archaeology Credits: 3
Using archaeological hoaxes, myths, and mysteries from around the world — including local and regional examples — students will use science to make good judgments about information they receive in today’s world. This course will demonstrate how science approaches questions about human antiquity and will show where pseudoscience falls short. (Lecture/online asynchronous).

Cross Listings: GEOLOGY 384.

CLASSICS 391WI Ancient Greek and Roman Medicine Credits: 3
This course explores the practice of medicine in the Ancient Greek and Roman Worlds from 800 BCE until 300 CE. Students will read primary sources in English and will also be introduced to Greek and Latin grammar and medical vocabulary so that they can understand and study essential terms from the history of medicine in their original language.

Prerequisites: RooWriter.

CLASSICS 469 Archaeology And Biblical History Credits: 3
An examination of ancient Israel as she emerges from the ruins of the past, both lapidary and literary. Through a study of the "mute documents," artifacts man-made (storied cities, household utensils, inscribed shards from Jericho to Jerusalem) we gain an insight indispensable for Biblical studies, for ancient Near Eastern history.

Cross Listings: HISTORY 469.

CLASSICS 470 Ancient Egypt Credits: 3
This course describes the political, social and cultural evolution of ancient Egypt from pre-dynastic times, with major emphasis upon the Old, Middle, and new Kingdoms (especially the 18th dynasty and the reign of Akhenaton).

Cross Listings: HISTORY 470.

CLASSICS 470P Ancient World: The Social History Of The Ancient World Credits: 4
The optional four-credit-hour component (modified independent study) will concern the social aspects of these civilizations, i.e., their daily lives. Readings and audiovisual aids will be used to help the student who will be expected to choose one aspect of each civilization, such as women, slavery, merchants, education, medicine, etc., and write a five-page paper about that topic for each period, i.e, Mesopotamia, Egypt, Greece and Rome.

Cross Listings: HISTORY 470P.

CLASSICS 471 Ancient Greece Credits: 3
This course begins with a survey of the pre-classical Minoan and Mycenaean civilizations and then describes the rise of prominent Greek city-states (with particular emphasis upon the evolution of Sparta and the political, social and cultural contributions of Athens). The course concludes with the rise of Macedon and Alexander’s conquests and significance.

Cross Listings: HISTORY 471.

CLASSICS 471P Ancient World: The Political Structure Of The Ancient World Credits: 4
The four-hour lecture period on weeknights will emphasize the historical aspects of the ancient civilizations. The lectures will be chronologically organized to focus upon their evolution from their rise to their collapse.

Cross Listings: HISTORY 471P.

CLASSICS 472 Ancient Rome Credits: 3
This course covers Roman history from its origins (including the Etruscans) to the decline of the imperial system. Particular emphasis is placed upon the political, social and economic developments in the Republic, the death of the Republic, the early Principate, and the factors that led to Rome’s decline in the ancient world.

Cross Listings: HISTORY 472.

CLASSICS 472P Ancient World: The Cultural & Intellectual Dimensions Ancient Civ Credits: 4
The four weekend periods will provide the students with a general picture of these civilizations: society, religion, economics, and culture (w.f., arts, literature, philosophy, science, etc.). Guest lecturers, slides, films and video cassettes will be used to introduce the varied aspects of these ancient peoples.

Cross Listings: HISTORY 472P.

CLASSICS 474 Late Antiquity: The Transformation of the Mediterranean World (200-600 AD) Credits: 3
The decline of the Roman Empire and the barbarian invasions transformed the Mediterranean and European worlds, forming the foundation of Europe and the Islamic world. Students will investigate the multicultural society of Late Antiquity and become familiar with the primary sources for the period.

Cross Listings: HISTORY 474, HISTORY 5574.
CLASSICS 475WI History Of Ancient Israel Credits: 3
Judaism has had a tremendous impact on our civilization and yet most Americans are only dimly aware of its origins and development. This course will trace the roots of the Jewish religion in its historical context from its beginnings through the formation of rabbinic culture. The rise of Christianity will be examined in its original Judaic context, and recent discoveries, particularly those pertaining to the Dead Sea Scrolls, will be interpreted.
Prerequisites: RooWriter.
Cross Listings: HISTORY 475WI.

CLASSICS 499 Senior Tutorial Credits: 3
A three-hour comprehensive reading and research tutorial leading to the writing of a senior paper. It consist of tutorial sessions and independent research leading to a major paper using original source materials.

Communication Studies (COMM-ST)

Courses
COMM-ST 110 Fundamentals Of Effective Speaking And Listening Credits: 3
An introduction to the dimensions of effective platform speaking with special emphasis on developing critical listening skills. Lecture, performance, and discussion.
COMM-ST 110 - MOTR COMM 110: Fundamentals of Public Speaking

COMM-ST 140 Principles Of Communication Credits: 3
An interdisciplinary introduction to the study of contemporary communication studies including a consideration of intrapersonal, interpersonal and public communication.
COMM-ST 140 - MOTR COMM 100: Introduction to Communications

COMM-ST 203 Introduction to Journalism Credits: 3
Introduction to the styles and techniques of reporting and writing basic news through assignments in straight news, features and in-depth stories. Exposure to the history and principles of American journalism. Practical application in writing news and news feature articles.
COMM-ST 212 Argumentation And Debate Credits: 3
A study of the nature of logical discourse generated through the preparation and presentation of oral argument within the framework of the debate format. Lecture, performance and discussion.
COMM-ST 212 - MOTR COMM 220: Argumentation Debate

COMM-ST 230 Introduction to Film Studies Credits: 3
The course is an introduction to the study of film as an art form and industrial practice. Students will study the basics of film analysis, cinematic formal elements, genre, narrative structure and the cultural functions of cinema.
Prerequisites: DISC 100 or ENGLISH 110.
COMM-ST 250 Introduction to Film and Video Production Credits: 3
This course teaches the fundamentals of media making using digital video. Students will learn techniques in pre-production planning, camera, sound, and editing by creating a series of short videos. Students will also learn to think analytically about film, and to apply insights about what gives an image impact and meaning to their own work. It is the foundation and prerequisite for all film and video production courses in the department.
COMM-ST 260P Introduction To Web Communications Credits: 4
This four credit hour web-based multimedia course will examine the process of critically evaluating information delivered on the Internet. It is
designed as an introduction for adults and students who use Internet information for work and/or school. The process of critically evaluating Internet
information will be described in four modules: traditional evaluation techniques; searching and researching strategies; Internet evaluation techniques
and Internet evaluation resources.

COMM-ST 265 Visual Communication Credits: 3
This course introduces the creative capture and design of photographic images as used in both print and new media for advertising, journalism, and
public relations. Basic artistic and production methods are examined, including real-world professional practices and the creative control of process
variables.

COMM-ST 270 Introduction to Digital and Mobile Journalism Credits: 3
An introduction to the practices and principles of creating video, combined with audio, graphics, and data information, by newsgathering in the field,
for both current and emerging mobile, non-broadcast, digital and social media platforms.

COMM-ST 300CY Ancient World in Cinema Credits: 3
This course will explore the tradition of depicting the ancient Mediterranean world in film from the early silent era to the present. Topics to be covered
include the ways that filmmakers respond to literary and historical sources from the ancient world, interact with the artistic tradition of films about the
ancient world, the relation of these films to other works by the same creative personnel (directors, actors, writers, producers, etc.), and the political and
cultural contexts in which the films were released.

COMM-ST 308 Introduction To The Study Of Human Communication Credits: 3
This course serves to introduce students to the basic theories, perspectives and methodologies used (historically and currently) in the study of
speech, interpersonal and mass communication.

COMM-ST 311 Radio & Television Performance Credits: 3
A study of the specialized radio and television performing and operating situations and techniques simulated and evaluated in studio sessions.
Lecture, discussion and performance.

COMM-ST 312 Advanced Public Speaking Credits: 3
Advanced study of rhetorical theory and its application to the presentation and criticism of public discourse.
Prerequisites: COMM-ST 110.

COMM-ST 312P Advanced Public Speaking Credits: 3
Advanced study of rhetorical theory and its application to the presentation and criticism of public discourse.
Prerequisites: COMM-ST 110.

COMM-ST 314 Reporting Credits: 3
Reporting is an advanced news gathering and reporting course designed to sharpen the writing skills and critical thinking of student journalists.
Prerequisites: COMM-ST 203 or ENGLISH 203.

COMM-ST 314WI Reporting Credits: 3
A seminar of practical application in advanced reporting. Assignments to cover news events and to pursue in-depth news reports on the campus and
off.
Prerequisites: COMM-ST 203 or ENGLISH 203; RooWriter.

COMM-ST 317 Persuasion Credits: 3
A study of the rhetorical, psychological and ethical principles of influencing and controlling individuals and groups, and of the methods of adapting to
various attitudes and audiences through the preparation, presentation and evaluation of persuasive speeches. Lecture, discussion and performance.
Prerequisites: COMM-ST 110.

COMM-ST 320 Mass Media, Culture And Society Credits: 3
A critical exploration of the role of mass media (and its reception) in the social construction of reality. The course employs theoretical, analytical
and empirical approaches derived from multidisciplinary sources, particularly "critical theory" semiology, post-structuralism, psychoanalysis and
ethnography. Term paper required.

COMM-ST 322 Oral Performance In Speech Communication Credits: 3
This course is designed to develop and strengthen oral communication for students pursuing careers in pre-law, media, human resources, and
education as well as increase the skills of potential professional speakers. The student will learn to develop emotional, vocal, physical, and non-verbal
skills through an investigation of poetry, prose, and non-fiction literature. Through the process of reading, studying, investigating, rehearsing, and
performing literary and nonliterary works, the students will learn to pay particular attention to the voice embodied in a given text and the cultural and
social context within which that voice speaks.
Prerequisites: COMM-ST 110.
COMM-ST 323 Concepts of the Hero in Ancient Literature and World Cinema Credits: 3
This course explores how concepts of heroism are related to the principles of values and civic duty in a wide range of ancient world cultures and contemporary world cinemas. Students will also demonstrate an understanding of how these values impact individual heroes and their interactions with others in their society.

COMM-ST 331 Mass Media In America Credits: 3
Social history of the development of mass media, radio, film, and television, from Marconi’s first experiments to the present. Emphasis placed on relationship of American culture and American media. Term paper required.

COMM-ST 331WI Mass Media In America Credits: 3
Writing intensive. Social History of the development of mass media, radio, film and television, from Marconi’s first experiments to the present. Emphasis placed on relationship of American culture and American media. Term paper required.
Prerequisites: RooWriter.

COMM-ST 339 Introduction to Film Theory Credits: 3
A survey of the history of theoretical and critical approaches to film theory/philosophy. Students will be introduced to major foundational and contemporary theoretical approaches to cinema that may include but are not limited to formalism, realism, auteurism, psychoanalysis, genre studies, structuralism, feminism, semiotics, cultural studies, post-structuralism, queer theory and digital studies.

COMM-ST 341 Rhetorical Theory And Criticism Credits: 3
An analysis of significant public discourse within the context of social protest and political rhetoric with attention to applying methods of communication criticism in evaluating the effectiveness of persuasive advocacy aimed at social change.

COMM-ST 341WI Rhetorical Theory And Criticism Credits: 3
Writing intensive. An analysis of significant public discourse within the context of social protest and political rhetoric with attention to applying methods of communication criticism in evaluating the effectiveness of persuasive advocacy aimed at social change.
Prerequisites: RooWriter.

COMM-ST 343 Group Dynamics Credits: 3
A study of strategies and communication relationships unique to non-dyadic situations, with an emphasis on the integral structure of leadership, roles, norms and task functions.

COMM-ST 344 Communication In Organizational Settings Credits: 3
An examination of the major elements of interpersonal, group, and oral communication competence essential to human interaction in organizational settings. The course focuses on developing communication competencies and increasing theoretical understanding of the communication process within the organizational context.

COMM-ST 344WI Communication In Organizational Settings Credits: 3
An examination of the major elements of interpersonal, group, and oral communication competence essential to human interaction in organizational settings. The course focuses on developing communication competencies and increasing theoretical understanding.
Prerequisites: COMM-ST 110 or COMM-ST 308, RooWriter.

COMM-ST 345 German Film Credits: 3
This course introduces students to the important contributions of German films to the development of movies as a unique literary art form. The class will cover important terms and concepts in film theory, the specifically German context of film, and important themes and periods in German film history. Taught in English with subtitled films.

COMM-ST 346 Art of the Short Film Credits: 3
Art of the Short Film examines the social, economic and aesthetic histories of narrative, documentary and experimental short form films from the birth of cinema to today.

COMM-ST 347 Topics in Film Genre Credits: 3
A topics course that examines the history and theory of film genres. Repeatable up to six hours when the topic changes.

COMM-ST 348 The Art of the Interview Credits: 3
This course will introduce students to the styles and techniques of conducting professional interviews with the goal of eliciting insightful, thoughtful answers fit for print or broadcast. Students will prepare QA interviews and articles for publication while gaining the confidence needed to work in professional newsgroups or office settings.

COMM-ST 351WI Fundamentals Of Writing For The Media Credits: 3
Analysis of individual differences and common characteristics of copy for eye and ear, with emphasis on the application of both verbal and visual imagery in the process of communicating the writer’s ideas and intentions. Weekly written assignments and critical analysis of the student’s work.
Prerequisites: COMM-ST 110, RooWriter.

COMM-ST 354 Introduction to Screenwriting Credits: 3
An introduction to the form and language of the motion picture screenplay. Students will learn to create a workable blueprint for a movie and undertake an in-depth examination of visual storytelling. This will include understanding the basics of dramatic structure, scene and sequence construction and the role of dialogue. Emphasis will be placed on students mastering the accepted movie industry format of the screenplay. They will also adapt a short story and revise it after giving and receiving feedback in small groups.
COMM-ST 355WI The New Feature Writing Credits: 3
An intensive practicum in the art of writing feature stories with a special emphasis on shorter stories that will grab reader interest in an era of short-attention spans.
Prerequisites: COMM-ST 203 or ENGLISH 203, RooWriter.

COMM-ST 356 U News Practicum Credits: 3
This course is workshop-based for students producing UMKC's weekly newspaper, U News. It also focuses on contemporary issues in American journalism and engaging with the university community.
Prerequisites: COMM-ST 203

COMM-ST 361 Media Management Credits: 3
An analysis of the trends, patterns and methods of radio and television operations.

COMM-ST 363 Radio Production I Credits: 3
A study of the techniques of producing audio material for use in radio, in concerts, on film, on television and in the recording studio.

COMM-ST 373 Intermediate Media Production Credits: 3
An intermediate-level production course emphasizing hands-on skills in cinematography and lighting, sound, and editing.
Prerequisites: COMM-ST 230 and COMM-ST 250.

COMM-ST 376 History Of The Film Industry Credits: 3
A history of the development of the American film industry from 1900 to the end of the studio era. The course will stress such issues as studio production, censorship, the economics of production and the selling of mass culture through the film medium. Term paper required.

COMM-ST 377 Interpersonal Communication Credits: 3
An intensive analysis of the dimensions of intrapersonal and interpersonal communication designed to identify the philosophies and methods which underwrite effective human communication. Lecture and discussion.

COMM-ST 377WI Interpersonal Communication Credits: 3
An intensive analysis of the dimensions of intrapersonal and interpersonal communication designed to identify the philosophies and methods which underwrite effective human communication. Lecture and discussion.
Prerequisites: RooWriter.

COMM-ST 378 Computer-Mediated Communication Credits: 3
Examination of the nature of human communication on the Internet. Design function, content innovations of computer mediated communication discussed, with emphasis on technology as a means of interpersonal communication. Research, essays, and participation in online environment required.

COMM-ST 378WI Computer Mediated Communication Credits: 3
Examination of the nature of human communication on the internet. Design, function, content innovations of computer mediated communication discussed, with emphasis on technology as a means of interpersonal communication. Research, essays, and participation in online environment required.
Prerequisites: RooWriter.

COMM-ST 380 Contemporary Media Topics Credits: 3

COMM-ST 381 Narrative Production Credits: 3
This course covers the creative, technical, and practical aspects of short-form narrative film production.
Prerequisites: COMM-ST 250 and COMM-ST 354.

COMM-ST 383 Cross-Cultural Journalism & Mass Media Credits: 3
Cross-Cultural Journalism Mass Media provides journalistic tools for traditional and new media coverage of diverse ethnic, gender, ability and ideological groups inside and outside the United States. The critical role of diverse voices in a democracy will be discussed. Students at UMKC and the Missouri School of Journalism participate in joint lectures transmitted by UMKC and MU instructors from their respective campuses.

COMM-ST 384 Documentary Film History Credits: 3
Documentary Film History is an overview of the history and theory of documentary cinema. The course surveys the documentary tradition with special attention to the relationship between content and style and the issues central to documentary film making, including ethical and legal questions, the relationship between representation and power and the ways in which film speaks to notions of truth and truth telling.

COMM-ST 385 Documentary Production Credits: 3
This course is designed to familiarize students with the basics of documentary production from an artistic, ethical, and practical results-oriented perspective.
Prerequisites: COMM-ST 250.
COMM-ST 386 Animation Credits: 3
This course provides an introduction to animation production techniques and an overview of the history of American animation arts. We will address both stop-motion and computer animation using industry standard software.

**Prerequisites:** COMM-ST 250.

COMM-ST 387 Strategic Communication Research Credits: 3
This course will examine different research methods and research stages in advertising and public relations, including quantitative and qualitative research methods. Students will learn how to plan, conduct, and evaluate strategic communication research. Students are also expected to develop a greater appreciation for the role that research plays in effective campaigns.

COMM-ST 388 Media Ethics Credits: 3
This course is designed to sensitize the ethical considerations that underlie the conventions and practices of print, broadcast, and internet media. By placing traditional and new media in a wider intellectual context than is generally possible under the daily demands of producing news, information, and entertainment, it seeks to produce a larger sense of media as industry and as a career choice.

COMM-ST 389 Forensic Activities Credits: 1-4
Participation in the intercollegiate forensic program. A practicum in debate, discussion, oratory and other forensic activities.

COMM-ST 391 The World(s) Of Alfred Hitchcock Credits: 3
The course offers an historical study of the film art of Alfred Hitchcock. The course gives special attention to the director's work in the silent cinema of the U.K., Hitchcock's early major British sound films, his arrival in the United States, his major World War II propaganda films, the directors maturing into a major influence on world cinema in the 1940's, and Hitchcock's "masterworks" of the 1950's-1960's.

COMM-ST 392 Topics in World Cinema Credits: 3
A variable topics course focused on the histories and theories of international cinemas. Repeatable up to 6 hours when the topic changes.

COMM-ST 393 Topics in Sound & Cinema Credits: 3
A variable topics course that focuses on the histories and aesthetics of sound in cinema. Repeatable up to 6 hours when the topic changes.

COMM-ST 394 Topics in Gender and Cinema Credits: 3
A course focused on the relationship between popular culture, film history and the construction of gender and sexuality. Repeatable up to 6 hours when the topic changes.

COMM-ST 400 Special Studies Credits: 1-3
(A-N) This is an upper-level course on a subject which is not a part of the regular department offering. The course results from one or more of the following: (1) the expressed desire of students (2) the broadened or refocused scholarship of a member of the communication studies faculty (3) the temporary presence of a scholar whose specialization is not reflected in the department's regular offerings (4) the conclusion by the department that the course meets a community need (5) the effort of the Communication Studies faculty to provide an interdisciplinary approach to an era or topic.

COMM-ST 400G Special Studies In Communication Studies Credits: 1-3
COMM-ST 400M Special Studies In Communication Studies Credits: 1-6
COMM-ST 400N Special Studies Credits: 1-3
COMM-ST 400Q Special Studies In Communication Studies Credits: 1-3
COMM-ST 400W Special Studies In Communication Studies Credits: 1-3
COMM-ST 400Z Special Studies Credits: 1-3
COMM-ST 406CD CC: Film Adaptation Credits: 3
The class will explore the process of adapting both fiction and non-fiction literary works into motion pictures. Students will examine the original literary source, then the interim screenplay and finally the completed motion picture.

COMM-ST 411 Seminar in Film and Media Arts Credit: 1
This course covers special topics and professional practices within Film and Media Arts. Course is repeatable. Required of B.A. in Film and Media Arts majors for every semester enrolled. Enrollment restricted to declared majors, B.A. in Film and Media Arts.

**Prerequisites:** Declared major, B.A. in Film and Media Arts.

COMM-ST 426 History And Criticism Of American Public Address I Credits: 3
This course examines American Public Address from 1630 to 1900, with an emphasis on the connections between rhetoric and social change. Students analyze how texts function within specific historical contexts.

COMM-ST 428 History and Criticism of American Public Address II Credits: 3
This course examines American Public Address from 1900 to present, with an emphasis on the connections between rhetoric and social change. Students analyze how texts function within specific historical contexts.

COMM-ST 431 Colloquium In Interpersonal Dynamics Credits: 3
An examination of the practical application of communication principles and theories, with focus on one of the following: health, organizational, nonverbal, intrapersonal, conflict management, computer mediated, or intercultural communication.
COMM-ST 432 Press, Politics And Public Policy Credits: 3
An advanced course in the study of the press and political establishments in the formation of public policy.

COMM-ST 441 Applications of Interpersonal Communication Credits: 3
This course examines interpersonal communication theory as it pertains to a variety of interpersonal relationships. The course employs class discussions of theory and assignments that apply those theories to real life interactions.

Prerequisites: COMM-ST 377 or COMM-ST 377WI.

COMM-ST 444WI Intercultural Communication Credits: 3
A consideration of communication phenomena in multicultural settings. A study of the public forum with an emphasis on the interpersonal aspects of international, intercultural, and co-cultural communication.

Prerequisites: RooWriter.

COMM-ST 446 Principles Of Advertising Credits: 3
A survey of advertising as an industry and a career field, examining its history and development in America, and its application in mass and special media. Specific procedures are studies for linking the development of advertising strategies, messages and campaigns to the marketing process, and for evaluation and selection of appropriate media to carry the advertising message.

COMM-ST 447 Interactive and Social Media Advertising Credits: 3
This course examines advertising on the Internet as a form of interactive communication, with a special focus on social media and search engines. It addresses basic concepts, current issues, and the development of interactive advertising strategies and plans. The coverage includes interactivity, pricing models, online targeting strategies, search engine optimization and advertising, social media advertising, and online video advertising.

COMM-ST 448 Principles Of Public Relations Credits: 3
An overview, presenting the function, purposes, procedures and practices of public relations, its role in society, industry, government and politics, and its potential as a career field. This is a survey course with primary emphasis on theory, supplemented with applied techniques.

COMM-ST 453 Urban Journalism Practicum Credits: 4
This course engages student journalists to produce stories with an urban focus across radio, online, and television platforms. By practicing convergence journalism, students gain practical story-telling experience for professional news organizations.

Prerequisites: COMM-ST 203 and permission of instructor.

COMM-ST 454 Advanced Screenwriting Credits: 3
This course provides students with advanced theory in narrative screenwriting, training in industry standard script analysis (called "coverage") and story editing. Students will be required to draft, revise and workshop a short film screenplay or will focus on a feature screenplay, delivering a draft and revision of the first act and a detailed outline for the rest of the script. Students will workshop feature screenplays in small groups, emphasizing the art of constructive story editing.

Prerequisites: COMM-ST 354.

COMM-ST 456 Electronic Journalism Credits: 3
A practical approach to the practices and principles of broadcasting news media, including preparing copy for microphone and camera, editing wire copy, reporting public affairs and public relations, and an intensive scrutiny of the concepts of freedom and responsibility as they apply to the press and current legislation.

COMM-ST 457 Client-Based Media Production Credits: 3
This course teaches the process of creating media for a professional client. Students will take on specialized crew positions and work together to plan, write, direct, shoot, edit, and distribute a short video for a local non-profit client.

Prerequisites: COMM-ST 250.

COMM-ST 462 Public Broadcasting Credits: 3
A study of the development of public broadcasting, its position and responsibilities in the world of modern communications. Programming and operations concepts and philosophies of public broadcast facilities will be studied and analyzed.

Prerequisites: COMM-ST 220.

COMM-ST 466 Advanced Electronic Journalism Credits: 3
An advanced study of television and Internet journalism credits: 3

Prerequisites: COMM-ST 456.

COMM-ST 470 Directing Credits: 3
An advanced course in video techniques with emphasis on creating complex formats for broadcasting, recording and performance. Lecture, discussion, and laboratory.

Prerequisites: COMM-ST 250.

COMM-ST 471 Advanced Media Production Credits: 3
An advanced course in media production techniques focused on the creation of a significant individual media work and professional development.

Prerequisites: COMM-ST 250, COMM-ST 373, and COMM-ST 354.
COMM-ST 473 Directing Actors and Scenes Credits: 3
This intensive workshop class seeks to deepen the student director's understanding of the acting process and provide ways of clearly and creatively communicating with actors. The course will deepen students’ understanding of blocking scenes and designing camera coverage. It will explore the role of the director as a guiding creative force in the making of a film through collaboration and provide techniques for scene analysis and preparation. Students will cast, rehearse and present a live performance for their final project and design appropriate camera coverage.
Prerequisites: COMM-ST 250.

COMM-ST 478 Media Law Credits: 3
A comprehensive examination of the law as it pertains to advertising, public relations, journalism, commercial and electronic media, broadcast regulatory agencies, corporate speech and corporate participation in elections. Students will study topics that include the First Amendment, defamation and privacy. Court opinions and legislation will be the course’s primary focus, however students will also examine contemporary and historic theory of free expression.

COMM-ST 483 Research Seminar In Communication Studies Credits: 3
This is the departmental capstone course and is required for majors in their last semester of their senior year. The course summarizes and extends student’s theoretical and applied understanding of the role of communication competence in the work place and beyond. The course also focuses on refining student’s research competencies and their appreciation of the cultural role of modern communication methods.
Prerequisites: Senior standing.

COMM-ST 484 Communication Studies Activities Credits: 1-4
Internships opportunities for advanced students involved in community and campus activities. Student must receive approval of advising professor in semester prior to enrollment. No more than four hours with any one project.

COMM-ST 492 Advertising Campaigns Credits: 3
The course content focuses on branding, re-branding or development of an identity program, and combines advertising planning with creative execution. Students will learn how to develop advertising/marketing/creative campaign plans for a specific client(s), conceptualize, design and develop all creative aspects including but not limited to logo/identity, copy, advertising, website development, app design, etc., and complete a presentation of the plans/briefs and final creative developments of the plans/briefs and creative to the client(s).
Prerequisites: COMM-ST 446 or COMM-ST 447 or COMM-ST 387.

COMM-ST 498 Special Problems In Communication Studies Credits: 1-3
Research and/or projects for advanced upper class students. Student must receive approval of advising professor in semester prior to enrollment. No more than three hours with any one instructor.

**Computer Science (COMP-SCI)**

**Courses**

COMP-SCI 100 Computer Fundamentals and Applications Credits: 3
The course covers essential computer concepts and skills. The emphasis is on using the computer as a tool to enhance productivity. Topics include basic computer concepts such as what to look for when buying a computer and how to avoid hackers and viruses when operating one. Students will also learn how to create word processing, spreadsheet, database, and presentation documents using the Microsoft Office suite of applications. The course prepares students to succeed in both college and business by enabling them to write reports, analyze and chart data, prepare presentations and organize large data sets.
Prerequisites: MATH 110 (or equivalent).

COMP-SCI 101 Problem Solving and Programming I Credits: 3
Problem solving, algorithms, and program design. Use of structured programming, lists, control structures, recursion, objects and files in Python. Introduction to graphical interface programming. Coding, testing and debugging using a modern development environment.
Prerequisites: MATH 110 or higher, ALEKS score of 51 or higher.

Co-requisites: COMP-SCI 101L.

COMP-SCI 111 Introduction to Computing Credits: 3
This course provides a broad and general introduction to the computing fields underlying computer science, information technology and computer engineering and its impact on humanity and society. It introduces important concepts of the field, including hardware, software, communications networks, algorithmic processes, information representation, and programming. The course is not programming oriented, but some light programming might be required. The course also introduces academic skills and strategies for success as a student and in a professional career.

COMP-SCI 190 Special Topics Credits: 1-3
Selected introductory topics in the area of computing. May be repeated for credit when topic varies.

COMP-SCI 190A Special Topics Credits: 1-3
Selected introductory topics in the area of computing. May be repeated for credit when topic varies.
COMP-SCI 191 Discrete Structures I Credits: 3
Mathematical logic, sets, relations, functions, mathematical induction, algebraic structures with emphasis on computing applications.
Prerequisites: MATH 110 or higher, ALEKS score of 51 or higher.

COMP-SCI 201L Problem Solving and Programming II - Lab Credit: 1
Programming exercises and demonstrations to reinforce concepts learned in COMP-SCI 201R and provide additional practice in C++ programming.
Prerequisites: COMP-SCI 101, COMP-SCI 191.
Co-requisites: COMP-SCI 201R.

COMP-SCI 201R Problem Solving and Programming II Credits: 3
Problem solving and programming using classes and objects. Algorithm efficiency, abstract data types, searching and sorting, templates, pointers, linked lists, stacks and queues implemented in C++.
Prerequisites: COMP-SCI 101, COMP-SCI 191.
Co-requisites: COMP-SCI 201L.

COMP-SCI 281R Introduction to Computer Architecture and Organization Credits: 3
Digital Logic and Data Representation, process architecture and instruction sequencing, memory hierarchy and bus-interfaces and functional organization.
Prerequisites: COMP-SCI 101, COMP-SCI 191.

COMP-SCI 282 Assembly Language Programming Credits: 3
Use of an assembly language for a virtual machine, internal representation of data and instructions, the assembly process, linking, loading and program relocation and execution. I/O, exception handling, alternative architectures.
Prerequisites: COMP-SCI 201R, COMP-SCI 281R.

COMP-SCI 290 Special Topics Credits: 1-3
Selected intermediate topics in the area of computing. May be repeated for credit when topic varies.

COMP-SCI 291 Discrete Structures II Credits: 3
Prerequisites: COMP-SCI 191.

COMP-SCI 303 Data Structures Credits: 3
Linear and hierarchical data structures, including stacks, queues, lists, trees, priority queues, advanced tree structures, hashing tables, dictionaries and disjoint-set. Abstractions and strategies for efficient implementations will be discussed. Linear and hierarchical algorithms will be studied as well as recursion and various searching and sorting algorithms. Programming concepts include Object Orientation, concurrency and parallel programming. Several in-depth projects in C++ will be required.
Prerequisites: COMP-SCI 191, COMP-SCI 201R, and COMP-SCI 201L.

COMP-SCI 304WI Ethics and Professionalism Credits: 3
Societal and ethical obligations of computer science, information technology, and electrical/computer engineering practice. Topics include obligations of professional practice, electronic privacy, intellectual property, ethical issues in networking, computer security, computer reliability, and whistleblowing.
Prerequisites: ENGLISH 225 (or equivalent), RooWriter.

COMP-SCI 349 Java Programming with Applications Credits: 3
The course covers the syntax and semantics of the Java programming language along with the use of essential class libraries. These topics will be taught in the context of application development. Students will learn how to write small to medium sized Java applications and applets. Specific topics covered include: essential classes in the Java API, interfaces, inheritance, exceptions, graphical user interface components, layout managers, events, I/O classes, Applets, data base access, and multithreading. Other topics will be covered as time permits.
Prerequisites: COMP-SCI 303.

COMP-SCI 352 Data Structures and Algorithms Credits: 3
Abstract data structures and analysis of associated algorithms, abstractions as separate from implementation. Structures include lists, trees, priority queues, advanced tree structures, hashing tables, and graphs. Comparison of efficiency of algorithms as implemented with various data structures. Advanced searching and sorting algorithms, shortest paths, spanning tree and flow algorithms. Introduction to the basic concepts of NP-complete problems.
Prerequisites: COMP-SCI 201R (or E&C-ENGR 216 for EC-ENGR students), COMP-SCI 291, MATH 210.
COMP-SCI 371 Database Design, Implementation and Validation Credits: 3
This course discusses in detail all aspects of ORACLE database management systems. It covers in detail database design, implementation, and validation using ORACLE. In addition to these, it briefly covers ORACLE implementation, tuning, and implementation. The course is suitable for undergraduates and professionals alike.
Prerequisites: COMP-SCI 303 (or COMP-SCI 352).

COMP-SCI 390 Special Topics Credits: 1-3
Selected topics in the area of computing at the junior level. May be repeated for credit when the topic varies.

COMP-SCI 393 Numerical Analysis and Symbolic Computation Credits: 3
Basic elements of numerical analysis: numerical solution of algebraic equations, solution of linear simultaneous algebraic equations, matrices, eigenvalues and eigenvectors, numerical integration and numerical solution of linear differential equations. Use of a symbolic manipulator on both symbolic and numerical computation, applied to the above listed basic elements of numerical analysis.
Prerequisites: COMP-SCI 201R, COMP-SCI 281R, MATH 250.

COMP-SCI 394R Applied Probability Credits: 3
Basic concepts of probability theory. Counting and measuring. Probability, conditional probability and independence. Discrete, continuous, joint random variables. Functions of random variables. Sums of independent random variables and transform methods. Random number generation and random event generation. Law of large numbers, central limit theorem, inequalities. Their applications to computer science and electrical and computer engineering areas are stressed.
Prerequisites: COMP-SCI 201R and COMP-SCI 201L (or E&C-ENGR 216), MATH 220, and STAT 235 (or E&C-ENGR 241).

COMP-SCI 396 Fundamentals of Communication and Network Security Credits: 3
Techniques learned in this course provide security solutions for a variety of security threats across the spectrum of communications and network applications. This course covers both fundamental cryptology and applications, including conventional encryption, modular arithmetic, data encryption standard, public-key cryptography, RSA, wireless communication security, secure email, Internet payment and secure web applications.
Prerequisites: MATH 300.

COMP-SCI 404 Introduction to Algorithms and Complexity Credits: 3
A rigorous review of asymptotic analysis techniques and algorithms: from design strategy (such as greedy, divide-and-conquer, and dynamic programming) to problem areas (such as searching, sorting, shortest path, spanning trees, transitive closures, and other graph algorithms, string algorithms) arriving at classical algorithms with supporting data structures for efficient implementation. Throughout, the asymptotic complexity is studied in worst case, best case, and average case for time and/or space, using appropriate analysis techniques (recurrence relations, amortization). Introduction to the basic concepts of computability and NP-complete theory.
Prerequisites: COMP-SCI 291, COMP-SCI 303 (or COMP-SCI 352).

COMP-SCI 411 Introduction to Telecommunications Systems Credits: 3
Representation of signals and systems, Fourier Series, Fourier Transform, transmission of signal through linear system, amplitude modulation systems, frequency and pulse modulation systems, sampling, time division multiplexing, digital modulation and noise in modulation systems.
Prerequisites: COMP-SCI 394R, MATH 250.

COMP-SCI 420 Introductory Networking and Applications Credits: 3
This introductory course examines the systems aspects of the different LAN/MAN/WAN models, including topics such as protocols, network operating systems, applications, management and wireless communication systems. It also examines how the different models are interconnected using bridges and routers.
Prerequisites: Senior standing.

COMP-SCI 421A Foundations of Data Networks Credits: 3
This introductory course examines the analytical aspects of data communications and computer networking. Topics cover protocol concepts and performance analysis that arise in physical, data link layer, MAC sub layer, and network layer.
Prerequisites: COMP-SCI 291, COMP-SCI 303, COMP-SCI 394R.

COMP-SCI 423 Client/Server Programming and Applications Credits: 3
Fundamentals of Client/Server programming using socket interface; features of network programming including connection oriented and connectionless communication in multiple environments (Windows, UNIX, and Java); other client/server mechanisms, such as RPC and RMI) and formal object environments designed to facilitate network programming (CORBA, COM and Beans).
Prerequisites: COMP-SCI 352 (or COMP-SCI 303, COMP-SCI 431).
COMP-SCI 424 Software Methods and Tools Credits: 3
This course covers a number of software methods and tools that are widely used in industry. These methods include architecture patterns and styles, software frameworks, unit testing, and version control. The covered software tools include Microsoft Project, IBM Rational Systems Modeler, Eclipse Plug-ins, JUnit, Subversion, and GIT. The course emphasizes practice. Students will use these methods and tools to develop a software system from the initial planning to final deployment.
Prerequisites: COMP-SCI 349.

COMP-SCI 431 Introduction to Operating Systems Credits: 3
This course covers concurrency and control of asynchronous processes, deadlocks, memory management, processor and disk scheduling, x86 assembly language, parallel processing, and file system organization in operating systems.
Prerequisites: COMP-SCI 303, COMP-SCI 281R.

COMP-SCI 441 Programming Languages: Design and Implementation Credits: 3
This course covers programming language paradigms (object-oriented programming, functional programming, declarative programming, and scripting) and design tradeoffs in terms of binding, visibility, scope, lifetime, type-checking and abstraction. It also covers programming language specification, grammar, lexical analysis, exception handling, and runtime considerations.
Prerequisites: COMP-SCI 303.

COMP-SCI 444 Compiler/Translator Design Credits: 3
This course will teach modern compiler techniques applied to both general-purpose and domain-specific languages. The examples chosen will also convey a detailed knowledge of state-of-the art based WWW technology. The fundamental goal of programming is to provide instructions to the computer hardware. The primary purpose of the compiler/translator is to facilitate communication from the programmer via some high level language to ultimately the computer hardware. Understanding how compiler/translators are built and operate is important to understanding efficiency of operation and storage.
Prerequisites: COMP-SCI 303 (or COMP-SCI 352).

COMP-SCI 449 Foundations of Software Engineering Credits: 3
The course introduces concepts of Software Engineering (definitions, context) and the Software Development Process (life cycle). Students will get a solid foundation in Agile methodology, SW requirements, Exceptions and Assertions, Verification and Validation, SW Models and modeling, and User Interface Design. Various SW Architectures will be discussed.
Prerequisites: COMP-SCI 303 (or COMP-SCI 352).

COMP-SCI 451R Software Engineering Capstone Credits: 3
The course will focus on the requirements and project planning and managing of medium sized projects with deliverables of each phase of the software life cycle. Additional studies of software modeling, requirements specifications, configuration management, verification, validation, software evolution and quality and finally measurement, estimation and economics of the software process.
Prerequisites: COMP-SCI 303 (or COMP-SCI 352), COMP-SCI 449.

COMP-SCI 456 Human Computer Interface Credits: 3
Design of human-computer interfaces considering the psychological and physical abilities of the user. User interface design from a functional and ergonomic perspective. Contents organization, visual organization, navigation. Use of graphical interface (GUI) and the development of high quality user interfaces.
Prerequisites: COMP-SCI 449.

COMP-SCI 457 Software Architecture: Requirements & Design Credits: 3
Introduction to requirements and design engineering with emphasis on organization and presentation of system requirements and designs for customers, users and engineers; validation of requirements and design with needs of system customer; examination of requirement and design changes during the lifetime of a system; transformation of informal ideas into formal detailed descriptions; examination of the different stages in the design process including architectural design, interface design and data structure design, database design, program and transaction design; examination of domain modeling criteria and examination of design quality attributes. Also discusses non-functional attributes and project resource allocation.
Prerequisites: COMP-SCI 303 (or COMP-SCI 352).

COMP-SCI 458 Software Architecture: Testing & Maintenance Credits: 3
Introduction of software system testing (including verification), software process, software reuse, software maintenance, and software re-engineering.
Prerequisites: COMP-SCI 303 (or COMP-SCI 352).

COMP-SCI 461 Introduction to Artificial Intelligence Credits: 3
This course provides an overview of the field of artificial intelligence. Topics include guided and unguided search, adversarial search, generation and use of heuristics, logic programming, probabilistic reasoning, and neural networks. Application areas studied include game playing, automated proofs, expert systems, and data mining. Recommended preparation: One or more of COMP-SCI 394R, COMP-SCI 404, or an advanced programming elective.
Prerequisites: COMP-SCI 303 or equivalent.
COMP-SCI 464 Applied Artificial Intelligence Credits: 3
Prerequisites: COMP-SCI 461.

COMP-SCI 465R Introduction to Statistical Learning Credits: 3
This course provides a practical introduction to analytical techniques used in data science and prepares students for advanced courses in machine learning. Topics covered include multivariate distributions, information theory, linear algebra (eigenanalysis), supervised/unsupervised learning, classification/regression, linear/non-linear learning, introduction to Bayesian learning (Bayes rule, prior, posterior, likelihood), parametric/non-parametric estimation.
Prerequisites: COMP-SCI 394R.

COMP-SCI 466R Introduction to Bioinformatics Credits: 3
This course introduces students to the field of Bioinformatics with a focus on understanding the motivation and computer science behind existing Bioinformatic resources, as well as learning the skills to design and implement new ideas.
Prerequisites: COMP-SCI 303.

COMP-SCI 470 Introduction to Database Management Systems Credits: 3
This course covers database architecture, data independence, schema, Entity-Relationship (ER) and relational database modeling, relational algebra and calculus, SQL file organization, relational database design, physical database organization, query processing and optimization, transaction structure and execution, concurrency control mechanisms, database recovery, and database security.
Prerequisites: COMP-SCI 303.
Co-requisites: COMP-SCI 431.

COMP-SCI 475 Introduction to Computer Graphics Credits: 3
Interactive Computer Graphics, Hardware Interaction, 3D transformations, Shading, Lighting and Texturing.
Prerequisites: COMP-SCI 303.

COMP-SCI 490 Special Topics Credits: 1-3
Selected topics in specific areas of computer science. May be repeated for credit when the topic varies.

COMP-SCI 490CI Special Topics Credits: 1-3
COMP-SCI 490CR Special Topics Credits: 1-3
COMP-SCI 490IS Special Topics Credits: 1-3
COMP-SCI 490JU Special Topics Credits: 1-3
COMP-SCI 490MT Special Topics Credits: 1-3
COMP-SCI 490NN Special Topics Credits: 1-3
COMP-SCI 490SA Special Topics Credits: 1-3
Special Topics
COMP-SCI 490SI Special Topics Credits: 1-3
COMP-SCI 490SM Special Topics Credits: 1-3

COMP-SCI 491 Internship Credits: 6
Students may participate in structured internships under the joint supervision of an employer and a faculty member. The student must carry out significant professional responsibilities that also have academic merit. The number of credit hours is based on the quality of the academic experience. Available for credit/no credit only and students must be in good standing with at least 18 credit hours of CS/IT counting towards the degree. Registration by consent number only: petition forms for CS/IT491 Internships are available in the office of CSEE Division and on the web.
Prerequisites: Junior standing.

COMP-SCI 494R Applied Stochastic Models Credits: 3
Review of basic probability including properties of joint random variables and functions of random variables. Discrete and continuous random processes, such as the Poisson process, Brownian motion, and white Gaussian noise. Linear filtering of random processes. Markovian birth and death processes and elementary queuing theory.
Prerequisites: COMP-SCI 394R.

COMP-SCI 497 Directed Readings Credits: 1-3
Readings in an area selected by an undergraduate student in consultation with a faculty member. Arrangements must be made prior to registration.

COMP-SCI 498 Research Seminar Credits: 1-3
Undergraduate research based on intensive readings from the current research literature under the direction of a faculty member. Arrangements must be made prior to registration.
COMP-SCI 499 Undergraduate Research Credits: 1-3
Completion of project, including a final written report, under the direction of a faculty member. A prospectus must be accepted prior to registration.

Conservatory (CONSVTY)

Courses
CONSVTY 101C Voice Class I Credits: 2
A course in the fundamentals of correct voice productions; breathing, breath control, study of vowel forms and consonants. Elementary songs. Poise, posture, and stage presence. This course covers two points of view: development of the student’s own voice and the pedagogy of voice-class instruction. A voice audition is required before registration.

CONSVTY 103 Fundamentals of Music Theory for Musicians Credits: 2
An introduction to the rudiments of music theory and aural skills. Designed primarily as a review course for Conservatory students. Non-music majors who desire an accelerated theory fundamentals class may also enroll in this course with the approval of the instructor.

CONSVTY 103 - MOTR MUSC 101: Music Fundamentals

CONSVTY 103N Fundamentals of Music Credits: 3
An introduction to the basic elements of music and music notation, including the study of melody, rhythm, scales and keys, triads, 7th chords, the piano keyboard and the musical staff. Designed primarily for those interested in learning about music but with little or no formal study of music theory.

CONSVTY 104 Jazz Improvisation I Credits: 2
A systematic approach to the art of jazz improvisation. Emphasis upon performance as well as analysis.

CONSVTY 108 Beginning Piano for Non-Music Majors Credits: 2
A class for non-music majors to acquire basic piano skills. Popular arrangements and group techniques designed to encourage students to play the piano for pleasure.

CONSVTY 110 Keyboard Skills I Credit: 1
Group instruction focused on developing basic keyboard skills in sight-reading, transposition, harmonization, accompanying, improvisation, technique, and repertoire. Music theory concepts will be reinforced through keyboard applications.

CONSVTY 114 Keyboard Skills I for Piano Majors Credit: 1
Techniques of sight reading, transposition, improvisation and open-score reading.

CONSVTY 115 Keyboard Skills II for Piano Majors Credit: 1
Continuation of CONSVTY 114.

CONSVTY 118 Electronica Credits: 3
An overview of the vast body of music that falls under the label “electronica”. Course consists of a historical survey as students acquire language to talk about music, learn how technology informs the creation of the music, and summarize musical trends and cultural influences on the music. Final project is the creation of a piece of electronica using a musical app on a mobile device or a computer.

CONSVTY 120 Music Appreciation Credits: 3
Designed for the general University student with little or no music background and required for Dance Majors (no credit for music majors). An emphasis on the basic elements of music and the historical and stylistic periods, illustrated by examples from different genre, such as instrumental and vocal ensembles, large and small, solo literature for voice and instruments, and dance. Three class sessions a week with frequent live performance and guest speakers.
Prerequisites: Non-music major.

CONSVTY 120 - MOTR MUSC 100: Music Appreciation

CONSVTY 120N Music Appreciation Credits: 3
A distance learning class designed for the general University student with little or no music background. Video lectures, interviews, performances, and discussion threads, are all delivered online. Course emphasizes historical and stylistic periods, genres, and music listening. Interviews with guest professors and performances of Conservatory faculty and students are included. Students may access the course at any time of the day or night, but exams must be taken on campus unless otherwise arranged.
Prerequisites: Non-music major.

CONSVTY 123 Keyboard Skills II Credit: 1
Continued group instruction focused on developing basic keyboard skills in sight-reading, transposition, harmonization, accompanying, improvisation, technique, and repertoire. Music theory concepts will be reinforced through keyboard applications.
Prerequisites: CONSVTY 110.
CONSVTY 125 History and Development of Rock and Roll Credits: 3
Designed for students with little or no music background, the course is an exploration of American popular music from early Rhythm and Blues and Country Western through Woodstock. Examines in detail the social/racial issues most important to the music and the cultural history of twentieth-century America. The course features online video lectures and numerous interviews with professors and scholars from other disciplines, presenting a perspective of the influence of this music on nearly every area of American life. Students are required to participate in online discussion groups as part of the class. Music majors may enroll for music elective credit.

CONSVTY 125 - MOTR MUSC 100RP: Music Appreciation-Rock/Pop

CONSVTY 126 Introduction to World Music Credits: 3
Introduction to World Music provides tools and paths for you to see the world differently and to enhance diversity by exploring musical traditions from around the world, many of which exist in Kansas City. Through lectures, videos, and live performances, Introduction to World Music will provide insight into the musical cultures of Africa, North America, the Caribbean, India, East Asia, Korea and Latin America and transform your view of our rapidly changing society. Open to all students.

CONSVTY 126 - MOTR MUSC 102: World Music

CONSVTY 128 Music Teaching Matters: A Professional Beginning Credits: 2
Music Teaching Matters: A Professional Beginning (CONS 128) allows students to explore the professional world of teaching music. Students will develop the ability to think and act like professional music educators through readings, discussions, presentations, field experiences, interviews, reflections, and opportunities to practice your craft as a teacher.

CONSVTY 133 Beginning Composition I Credits: 3
Introduction to the compositional process, including notation, calligraphy and score preparation, styles and forms, and related topics. A weekly one-hour lab is required.

CONSVTY 133A Beginning Composition For Non-Composition Majors I Credits: 2
An introductory course in music composition, with exercises in instrumentation, notation, orchestration, form, melodic construction, harmony, counterpoint, and rhythm. Discussion and analysis of current works, trends and techniques in music composition. Final project is an original composition. A weekly one-hour lab is required.

CONSVTY 133B Beginning Composition for Prospective Composition Majors Credits: 3
A class for students wishing to work toward major status in the music composition program. Exercises and projects as in 133A, with an extra hour per-week of in-depth, guided exercises and portfolio development. A weekly one-hour lab is required.

CONSVTY 134 Beginning Composition II Credits: 3
Continuation of CONSVTY 133.
Prerequisites: CONSVTY 133.

CONSVTY 134A Beginning Composition for Non-Composition Majors II Credits: 2
A weekly one-hour lab is required.
Prerequisites: CONSVTY 133A.

CONSVTY 134B Beginning Composition for Prospective Composition Majors II Credits: 3
Continuation of CONSVTY 133B. Exercises and projects as in CONSVTY 134A, with an extra hour per-week of in-depth, guided exercises and portfolio development. A weekly one-hour lab is required.
Prerequisites: CONSVTY 133B.

CONSVTY 138 Music Therapy Foundations Credits: 2
This course provides students with foundational information pertaining to the music therapy profession. Course topics include the history of music therapy, populations that music therapists serve, and an introduction to the use of music in therapeutic settings.
Prerequisites: Music Therapy Student.

CONSVTY 141 Musicianship I Credits: 4
Musicianship I focuses on diatonic harmony through an integration of theory and aural skills. It covers a music fundamentals review, principles of chord construction, four-part writing and harmonic syntax, as well as the application of concepts in analytical assignments and projects, dictation, and singing. Particular attention is given to the development of critical writing skills and the creation of stylistic compositions.
Co-requisites: CONSVTY 110.
CONSVTY 142 Musicianship II Credits: 4
Continuation of CONSVTY 141 with attention to phrase structure, small forms, and an introduction to chromaticism including such topics as applied chords, simple modulation, and modal mixture. Particular attention is given to the development of critical writing skills and the creation of stylistic compositions.
Prerequisites: CONSVTY 141.

Co-requisites: CONSVTY 123.

CONSVTY 180 Music in Special Education Credits: 3
Class demonstration and participation in the use of music materials for handicapped children.

CONSVTY 185B Foreign Language For Singing II Credits: 2
A course for Italian diction. Emphasis is placed on sung rather than conversational pronunciation. Required for BM voice.

CONSVTY 185C Foreign Language For Singing III Credits: 2
A course for German diction. Emphasis is placed on sung rather than conversational pronunciation. Required for BM voice.

CONSVTY 185D Foreign Language For Singing IV Credits: 2
A course for French diction. Emphasis is placed on sung rather than conversational pronunciation. Required for BM voice.

CONSVTY 202 Basic Techniques of Audio Recording I Credits: 3
A study of the philosophy, history, and development of audio recording. Practical application of recording techniques and development of recording skills.

CONSVTY 203 Basic Techniques of Audio Recording II Credits: 3
Continuation of study of recording techniques and development of recording skills.
Prerequisites: CONSVTY 202.

CONSVTY 204 Jazz Improvisation II Credits: 2
Prerequisites: CONSVTY 104.

CONSVTY 205 Applied Jazz Studies Credits: 2
Unlimited repeatability. This weekly private lesson includes the study of advanced concepts used to compose spontaneously. Includes the analyses of harmonic progressions, applications of scales and rhythmic interpretation. Only open to Jazz majors.

CONSVTY 210A Clinical Experience: I Credit: 1
Clinical Experience I.

CONSVTY 210B Clinical Experience: II Credit: 1
Primarily assists the site coordinator with some leadership responsibilities.

CONSVTY 210C Clinical Experience: III Credit: 1
Equal assisting and leading responsibilities on-site

CONSVTY 210D Clinical Experience: IV Credit: 1
Some assisting and primarily leading responsibilities on-site.

CONSVTY 210E Clinical Experience: V Credit: 1
Clinical Experience V.
Co-requisites: CONSVTY 408.

CONSVTY 210F Clinical Experience VI Credit: 1
Clinical Experience VI.
Co-requisites: CONSVTY 409.

CONSVTY 223 Keyboard Skills III Credit: 1
Group instruction focused on developing intermediate keyboard skills in sight-reading, transposition, harmonization, accompanying, improvisation, technique, and repertoire. Music theory concepts will be reinforced through keyboard applications.
Prerequisites: CONSVTY 123.

CONSVTY 233 Intermediate Composition I Credits: 3
Continuation of CONSVTY 134. A weekly one-hour lab is required.
Prerequisites: CONSVTY 134.

CONSVTY 233A Intermediate Composition for Non-Composition Majors I Credits: 2
Continuation of CONSVTY 134A. A weekly one-hour lab is required.
Prerequisites: CONSVTY 134A.
CONSVTY 234 Intermediate Composition II Credits: 3
Continuation of CONSVTY 233.
Prerequisites: CONSVTY 233.

CONSVTY 234A Intermediate Composition for Non-Composition Majors II Credits: 2
Continuation of CONSVTY 233A. A weekly one-hour lab is required.
Prerequisites: CONSVTY 233A.

CONSVTY 235 Techniques of Electronic Music I: Digital Audio Credits: 3
This course is designed to give students a thorough grasp of studio hardware and software used in composing music with digital audio. Studio configuration, sampling/recording, mixing, effects processing, synthesis, multi-tracking, wave editor and digital audio work station software, basic MIDI and electroacoustic literature and ear training will be discussed in the process of creating a short original composition. Focus will also be on fostering independent creativity and problem solving in a music studio. In addition to three 50-minute lecture/demo sessions per week, 3-5 hours minimum of in-studio work time is expected. Open to anyone regardless of musical training.

CONSVTY 236 Techniques of Electronic Music II: MIDI Credits: 3
This course is designed to give students a grasp of studio hardware and software used in composing music with MIDI. Studio configuration, sampling, mixing, effects processing, multi-tracking, MIDI, and basic digital audio work station software will be taught along with electroacoustic literature and ear training. The course focuses on creating a short composition using MIDI technology. Focus will also be on fostering independent creativity and problem solving in a music studio. In addition to three 50-minute lecture/demo sessions per week, 3-5 hours minimum of in-studio time is expected. Open to anyone regardless of musical training.

CONSVTY 238 Woodwind Techniques and Pedagogy Credit: 1
This course will discuss the fundamentals of playing and teaching woodwind instruments in an authentic setting. In order to achieve this, students are required to develop some performance ability as well as teaching techniques and strategies for each particular woodwind instrument. Basic principles, such as embouchure formation and development, fingerings, transposition, intonation, teaching materials, and teaching techniques will be covered. Flute, Clarinet, Saxophone, Oboe and Bassoon will be discussed during the course.

CONSVTY 239 Brass Techniques and Pedagogy Credit: 1
This course will discuss the fundamentals of playing and teaching brass instruments in an authentic setting. In order to achieve this, students are required to develop some performance ability as well as teaching techniques and strategies for each particular brass instrument. Basic principles, such as embouchure formation and development, fingerings, transposition, intonation, teaching materials, and teaching techniques, will be covered. Trumpet, French Horn, French Horn, Baritone, and Tuba will be discussed during the course.

CONSVTY 241 Musicianship III Credits: 4
Continuation of CONSVTY 142. Study of harmonic structures such as Neapolitan and augmented sixth chords, chromatic modulation, and symmetry. Detailed examination of larger forms and genres such as sonata, rondo, art song, and fugue. Particular attention is given to the development of critical writing skills and the creation of stylistic compositions.
Prerequisites: CONSVTY 142.
Co-requisites: CONSVTY 223.

CONSVTY 242 Musicianship IV Credits: 4
Continuation of CONSVTY 241. Study of late-nineteenth century chromaticism and analytical and compositional methods of twentieth and twenty-first century music, including set theory and twelve-tone theory. Particular attention is given to the development of critical writing skills and the creation of stylistic compositions.
Prerequisites: CONSVTY 241.
Co-requisites: CONSVTY 310.

CONSVTY 270 Marching Band & Jazz Ensemble Techniques Credits: 2
This course is designed to prepare pre-service teachers with pedagogical and organizational techniques for marching band and jazz ensembles in the schools. The course will include developing practical rehearsal techniques for teaching body manipulation in space, designing and evaluating marching band field design and maneuvers, jazz ensemble pedagogy, jazz improvisation pedagogy, and the use of appropriate materials. A field experience component will further student interaction with an active band program that will allow continued examination and development of a philosophy on the role of marching band and jazz ensembles within the school curriculum.

CONSVTY 285 Elementary Music Methods Credits: 3
Laboratory course for classroom teachers in which principles of instructional design will be applied to music teaching. Students who have extensive music background may elect CONSVTY 385 in place of CONSVTY 285.

CONSVTY 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Co-requisites: Enrollment in lessons.
CONSVTY 301B Men’s Chorus Credit: 1
CONSVTY 301C Bella Voce Credit: 1

CONSVTY 301E Opera Theater Ensemble Credits: 0
An introduction to opera performance techniques for opera chorus/ensemble. Major literature for opera choruses may also be surveyed. Members of this class will be required to perform in the chorus of a UMKC Opera production. This course can be taken at any time during the student’s undergraduate degree and will count for one semester toward the requirement in the BM Vocal Performance degree of 2 semesters in a UMKC opera production. Students will be required to audition for the course to help the faculty assign the student to the proper voice part/section. **Prerequisites:** Voice Audition.

CONSVTY 301G Ensemble for Composers Credit: 1
Observation, score analysis, non-performance participating during a semester’s rehearsals and performance by a participating Conservatory ensemble. Students a.) keep journals that are periodically reviewed and graded by the composition faculty, and b.) meet with composition faculty periodically to review and discuss issues raised in the ensemble settings. **Prerequisites:** CONSVTY 234, Four semesters of major ensemble participation as a performer.

CONSVTY 301H Musica Nova Credit: 1
CONSVTY 302 Orchestra Credits: 2
Required of all qualified music majors and open to all interested students by audition.

CONSVTY 302 - MOTR PERF 1020: Music Performance-Orchestra

CONSVTY 303B Jazz Band Credits: 2
The Jazz Ensemble comprises saxophone, trombone, trumpets and rhythm section students of the highest level in the Conservatory and performs repertoire of the highest caliber available to the medium. The curriculum is well balanced between traditional, modern, and original music and requires advanced musical and technical facility amongst its members. The class is open to all UMKC students by audition.

CONSVTY 303C Percussion Ensemble Credit: 1
CONSVTY 303E Jazz Workshop Credit: 1
Jazz Workshop

CONSVTY 303G Jazz Orchestra Credits: 2
The Jazz ensemble comprises saxophone, trombone, trumpets and rhythm section students of the highest level in the Conservatory and performs repertoire of the highest caliber available to the medium. The curriculum is well balanced between traditional, modern, and original music and requires advanced musical and technical facility amongst its members. The class is open to all UMKC students by audition.

CONSVTY 303J Large Ensemble Rhythm Section Workshop Credits: 2
This weekly private lesson includes the study of advanced concepts used to compose spontaneously. Includes the analyses of harmonic progressions, applications of scales and rhythmic interpretation.

CONSVTY 303MP Improvisational Music/Media Performance Ensemble Credits: 2
IMP Ensemble explores improvisation in the broadest definition, where listening and responding become a way of real-time creation. IMP is a think-tank of people willing to risk and fail quickly, so a show can go on, using any new individual media to explore the boundaries of the medium and improvisation. No particular instrumental skill is needed, only an open mind. Non Conservatory students by instructor approval.

CONSVTY 304 Jazz Improvisation III Credits: 2
**Prerequisites:** CONSVTY 204.

CONSVTY 305A Principles Of Chamber Music Credit: 1
Collaborative music-making in groups of like-instruments (piano ensembles, flute quartets, sax quartets, etc., plus beginning experiences in string quartets, woodwind and brass quintets, etc.). Weekly coaching.

CONSVTY 305B Principles Of Chamber Music Credit: 1
Collaborative music-making in groups of like-instruments (piano ensembles, flute quartets, sax quartets, etc., plus beginning experiences in string quartets, woodwind and brass quintets, etc.). Weekly coaching.

CONSVTY 305C Principles Of Chamber Music Credit: 1
Collaborative music-making in groups of like-instruments (piano ensembles, flute quartets, sax quartets, etc., plus beginning experiences in string quartets, woodwind and brass quintets, etc.). Weekly coaching.

CONSVTY 305E Principles Of Chamber Music Credit: 1
Collaborative music-making in groups of like-instruments (piano ensembles, flute quartets, sax quartets, etc., plus beginning experiences in string quartets, woodwind and brass quintets, etc.). Weekly coaching.
CONSVTY 305G Principles Of Chamber Music Credit: 1
Collaborative music-making in groups of like-instruments (piano ensembles, flute quartets, sax quartets, sax quartets, etc., plus beginning experiences in string quartets, woodwind and brass quintets, etc.). Weekly coachings.

CONSVTY 305H Chamber Orchestra Credit: 1

CONSVTY 305J Chamber Music Guitar Credit: 1

CONSVTY 306A Conservatory Wind Ensemble Credits: 2

CONSVTY 306C Wind Symphony Credits: 2
The Wind Symphony comprises wind, brass and percussion students of the highest level in the Conservatory and performs repertoire of the highest caliber available to the medium. The curriculum is well balanced between traditional, modern, and chamber music and requires advanced musical and technical facility amongst its members. The class is open to all UMKC students by audition.

CONSVTY 307A Canticum Novum Credit: 1

CONSVTY 307B University Singers Credit: 1
Mixed chorus specializing in choral-orchestral literature. May be repeated for credit. Open by audition to University students, regardless of major.

CONSVTY 307C Conservatory Singers Credit: 1

CONSVTY 308A Conservatory Concert Choir Credit: 1

CONSVTY 309 Audio Recording III Credits: 3
Continuation of study of recording techniques and music production skills.
Prerequisites: CONSVTY 203.

CONSVTY 310 Keyboard Skills IV Credit: 1
Group instruction focused on developing intermediate keyboard skills in sight-reading, transposition, harmonization, accompanying, improvisation, technique, and repertoire. Music theory concepts will be reinforced through keyboard applications. The Piano Proficiency Exam is administered as part of this course.
Prerequisites: CONSVTY 223.

CONSVTY 311 Jazz Theory Credits: 2
The basics of written jazz harmony and its nomenclature will be addressed. Topics covered will include but not be limited to jazz scales and modes: chords, i.e. from the 7 through the 13 with all of their frequent jazz alterations; harmonic progressions, reharmonization; voice leading, dissonance; melody, transcription, analysis and the study of form(s). Notation will be addressed throughout. Students will acquire the fundamentals to pursue jazz improvisation, arranging and composition on a more informed level. This class is a prerequisite to Jazz Arranging.

CONSVTY 315 Music Therapy Piano Techniques Credits: 2
Course covers techniques of leading piano stylists from early ragtime to the present. Includes listening, analysis, arranging, and performing.
Prerequisites: Piano Proficiency Exam.

CONSVTY 316 Music Therapy Guitar Techniques Credits: 2
Course covers techniques of leading guitar styles from the 1920’s to present. Includes listening, analysis, transcription, and performing.
Prerequisites: CONSVTY 373G.

CONSVTY 317 Music Therapy Ensemble and Improvisation Techniques Credits: 3
Playing and Improvising in free form and from a variety of popular genres from Swing to the present day.
Prerequisites: CONSVTY 316; Music Therapy Student.

CONSVTY 318 Jazz Ear Training and Listening Credits: 2
This course offers the student basic fundamental techniques needed to improve aural perceptions in both the translation of hearing into writing and the performance of reading into singing and playing in the jazz idiom. Introduction and practice in singing, aural recognition and writing of intervals and short, simple melodies. Also including rhythm, memory and improvisational drills.
Prerequisites: CONSVTY 329.
CONSVTY 319 Opera Role Performance Credits: 2
Preparation, rehearsal and performance of a role in an opera production at UMKC. This course may count toward the 2 semester opera production requirement for the BM in Vocal Performance degree. Credit for non-performing duties such as assistant directing or assistant stage managing may be available with approval of the Vocal Studies faculty and the current Stage Director.
Prerequisites: Vocal Audition.

CONSVTY 325 Piano Pedagogy I Credits: 2
Instructional strategies for teaching the beginning piano student including methods, materials, repertoire, technique and the use of music technology. Various aspects of establishing and managing a piano studio will also be addressed.

CONSVTY 325A Piano Pedagogy - Supervised Teaching I Credit: 1
Supervised practicum designed to demonstrate lesson planning and activities for beginning students through the observation of experienced teachers and various supervised teaching experiences.
Co-requisites: CONSVTY 325.

CONSVTY 326 Piano Pedagogy II Credits: 2
Instructional strategies for teaching the intermediate and advanced piano student, including methods, materials, repertoire, technique, and the use of music technology.
Prerequisites: CONSVTY 325.

CONSVTY 326A Piano Pedagogy - Supervised Teaching II Credit: 1
Supervised practicum designed to demonstrate lesson planning and activities for students of various levels through observation of experienced teachers and various supervised teaching experiences.
Prerequisites: CONSVTY 325A.

CONSVTY 329 Advanced Ear Training Credits: 2
Study of atonal and highly chromatic tonal aural problems, complex rhythms, and recognition of instruments. May be repeated for credit.
Prerequisites: CONSVTY 242.

CONSVTY 331 Orchestration I Credits: 2
An introduction to the instruments of the symphony orchestra and rudiments of scoring. Classification of instruments and learning to write for all transposing instruments.
Prerequisites: CONSVTY 242.

CONSVTY 331A Orchestration I Credits: 3
An introduction to the instruments of the symphony orchestra and rudiments of scoring. Meets concurrently with CONSVTY 331; the third credit hour is required for music composition and music theory majors.
Prerequisites: CONSVTY 242.

CONSVTY 333 Advanced Composition Credits: 3
May be repeated for credit.
Prerequisites: CONSVTY 234.

CONSVTY 335 Electronic Music Composition Credits: 3
This course focuses on creating an original music composition in any style utilizing the full range of digital audio or MIDI hardware, software ad techniques available to the student. In addition to weekly meetings arranged with the instructor, 5-8 hours per week of studio time is required. May be repeated for credit.
Prerequisites: CONSVTY 235 (or CONSVTY 236).

CONSVTY 341 Principles of Music Business Credits: 3
This Music Business course is in an online format and will provide an overview of the many different careers and business practices in the music industry. The course content will highlight the variables considered when creating, selling and marketing a variety of items in different mediums.

CONSVTY 342 This is Your Brain on Music Credits: 3
This is an introductory course on the connections among music, the brain, and learning. The course provides a basic understanding of the relationship between the brain, music, and human behavior in the physiological, motor, social, emotional, and cognitive domains.

CONSVTY 351 History of Music in Western Civilization I Credits: 3
A chronological study of music in Western civilization with emphasis on periods and styles from early times to the death of Bach. Outside listening required.
George Santayana once reasoned that if you cannot remember the past, you are condemned to repeat it. If that is the case, then as music students you all must ask how the music of the past can inform and change the music you make and make you better musicians. This class examines selected works from Western musical history and explores the biographical, stylistic, and aesthetic issues they raise. It seeks to home your analytical skills through knowledge of stylistic features while introducing you to musical debates that still rage today.

**Prerequisites:** ENGLISH 110, ENGLISH 225, RooWriter.

A chronological study of music in Western civilization from 1750 to the present. Outside listening required.

**Prerequisites:** CONSVTY 351.

A chronological study of music in Western Civilization from 1750 to the present. Outside listening and writing projects required.

**Prerequisites:** RooWriter.

This course aims to contextualize jazz within the musical culture of the twentieth century. It is designed to develop the students understanding of jazz from a writing and research perspective. This course concentrates on the lives, bands, and works of people who have been instrumental in the development of the various jazz styles. In-depth analysis of major jazz figures including Louis Armstrong, Duke Ellington, Count Basie, Charlie Parker, Dizzy Gillespie, Thelonious Monk, Clifford Brown, Sonny Rollins, John Coltrane, Miles Davis, Wayne Shorter, and many others. This course is most appropriate for Jazz Studies majors, and other conservatory students with some jazz background and knowledge of the fundamentals of music. This course makes use of the Marr Sound Archive.

**Prerequisites:** CONSVTY 353A, RooWriter.

Includes listening and analysis as they relate to programming and educational issues in choral ensemble setting. May be repeated for credit.

**Prerequisites:** CONSVTY 380.

Designed for the student working with beginning and intermediate levels of wind/percussion instruments. Includes critical analysis and evaluation of literature selection as it relates to educational issues and programming in wind/percussion ensemble settings. Includes an off-campus course meeting with a community wind band rehearsal/performance setting providing opportunities realistic opportunities for observation and teaching.

**Co-requisites:** CONSVTY 381.

Includes listening and analysis as they relate to programming and educational issues in string ensemble settings. May be repeated for credit.

**Prerequisites:** CONSVTY 381.

A survey of study through analysis, reading, listening and performance of literature for stringed keyboard instruments from the Renaissance period to 1850. Special attention given to the development of instruments, forms, techniques, performance practices and idiomatic styles.

A study through analysis, reading, listening, and performance of piano repertoire from 1850-present day. Special attention given to the development of instruments, forms, techniques, performance practices and idiomatic styles.

This course provides students with foundational information pertaining to the music therapy profession. course topics include the history of music therapy, populations that music therapists serve and an introduction to the use of music in therapeutic settings.

**Prerequisites:** Music Therapy Student.

This course will explore the career and music of the Beatles by examining their impact on popular culture in Britain and the United States. Students will learn about popular song forms, recording techniques, and lyric writing and analysis. They will also employ video and audio media for projects, and engage with readings that approach the Beatles both historically and culturally.
CONSVTY 366 Clinical Foundations II Credits: 3
This course provides the second-semester clinical student continued practice of direct services, procedures, and documentation of the music therapy treatment process (assessment, setting goals and objectives, treatment plan, interventions, data collection, documentation, and evaluation). Building upon competencies learned in CONSVTY 395 Clinical Foundations, students will experience practice and supervision within the context of community-dwelling older adult populations.

Prerequisites: CONSVTY 395, Music Therapy Student.

Co-requisites: CONSVTY 369.

CONSVTY 367 Music Therapy Capstone Credit: 1
This seminar course assists students in creating a research or clinical-based capstone project.

Prerequisites: CONSVTY 435, Music Therapy Student.

CONSVTY 368 Orchestral Literature for Trumpet Credit: 1
Intended to introduce students to the standard repertoire for orchestral trumpet; class meets once weekly for an hour. Students will be expected to prepare and play approximately a dozen works per semester, rotating parts in a full trumpet section.

CONSVTY 369 Clinical Skills Lab Credit: 1
This course provides students with development, practice, and mastery of clinical music therapy skills. Course topics include clinical musicianship, repertoire development, and group leadership skills.

CONSVTY 370 Choral/Vocal Techniques Credits: 2
Laboratory applications of vocal pedagogy, ensemble rehearsal technique, literature selection, and performance practice. Students will participate in singing and observation activities in a large ensemble setting with an emphasis on critical analysis of technical and pedagogical issues.

Prerequisites: CONSVTY 380.

CONSVTY 373E Instrumental Techniques Percussion Credit: 1

CONSVTY 373G Instrumental Techniques Guitar Credit: 1

CONSVTY 373N Survey Of Wind And Percussion Instruments Credit: 1
An overview of basic wind and percussion instruments used in public school settings. Includes embouchure formation, hand position, sound production, and pedagogical issues encountered in beginning situations.

CONSVTY 373P Survey Of String Instruments Credit: 1
An overview of basic string instruments used in public school settings. Includes hand position, bowing, sound production, and pedagogical issues encountered in beginning situations.

CONSVTY 376 Collaborative Piano I Credit: 1
Study of collaborative techniques and vocal literature.

CONSVTY 377 Collaborative Piano II Credit: 1
Continuation of CONSVTY 376.

Prerequisites: CONSVTY 376.

CONSVTY 378 Instrumental Ensemble Rehearsal Techniques & Lab Credits: 2
Laboratory applications of large instrumental ensemble (strings, winds, percussion) pedagogy, ensemble rehearsal technique, and performance practice. Students will participate in playing, observation, rehearsal activities in a large ensemble setting with an emphasis on critical analysis of technical pedagogical issues and ensemble performance preparation. Includes an off-campus course meeting.

Prerequisites: CONSVTY 358, CONSVTY 381 and large ensemble requirement.

Co-requisites: CONSVTY 383.

CONSVTY 378L Instrumental Ensemble Rehearsal Lab Credit: 1
Laboratory applications of wind/percussion pedagogy, ensemble rehearsal technique, literature selection, and performance practice. Students will participate in playing, observation, and rehearsal activities in a large ensemble setting with an emphasis on critical analysis of technical pedagogical issues and ensemble performance preparation. This course may meet off-campus.

Prerequisites: CONSVTY 358, CONSVTY 381, large ensemble requirement.

Co-requisites: CONSVTY 378, CONSVTY 383.

CONSVTY 380 Basic Conducting - Choral Credits: 2
A study of the basic techniques of all rhythms, patterns, subdivision of beats, dynamics, starting, stopping, and giving cues through conducting in class. Elementary study of the score as to form and harmonic content will be discussed.

Prerequisites: CONSVTY 242.
CONSVTY 381 Basic Conducting - Instrumental Credits: 2
A study of the basic techniques of all rhythms, patterns, subdivision of beats, dynamics, starting, stopping, and giving cues through conducting in class. Elementary study of the score as to form and harmonic intent will be discussed.

Prerequisites: CONSVTY 242.

CONSVTY 382 Choral Conducting Credits: 2
A study of choral techniques including voice tryouts, placement, attack, release, blend, vocal development, diction, and rehearsal techniques through actual experience of conducting in class.

Prerequisites: CONSVTY 380.

Co-requisites: CONSVTY 387.

CONSVTY 383 Instrumental Conducting Credits: 2
A study of instrumental conducting techniques through actual conducting situations in instrumental groups. Primary objective will be the study of instrumental rehearsal techniques.

Prerequisites: CONSVTY 381.

Co-requisites: CONSVTY 386.

CONSVTY 385 Elementary Music Methods Credits: 3
Basic principles of curriculum planning for music education, investigation of current methods and approaches, and practical teaching experience in laboratory setting. For music majors and non-majors who have extensive musical backgrounds.

Prerequisites: CONSVTY 242, CONSVTY 411C.

Co-requisites: CONSVTY 411C.

CONSVTY 386 Secondary Music Methods - Instrumental Credits: 2
The organization, scheduling and feeder-system techniques of beginning band and orchestral programs through high-school level instruction. Areas of study will include curriculum, pedagogical techniques, library facilities, bidding procedures, basic instrument techniques.

Co-requisites: CONSVTY 383, CONSVTY 411B.

CONSVTY 387 Secondary Music Methods - Choral Credits: 2
The organization of juvenile and senior high school choral classes to include methods, materials and program building.

Co-requisites: CONSVTY 382, CONSVTY 411B.

CONSVTY 390 Analysis Credits: 3
Analysis offers students the opportunity to learn and apply multiple analytical techniques to complete movements and larger pieces of music by focusing on the study of pitch, rhythm, form, aesthetics, and issues of performance.

Prerequisites: CONSVTY 242.

CONSVTY 395 Clinical Foundations Credits: 3
This course provides the first-year clinical student practice of direct services, procedures, and documentation of the music therapy treatment process (assessment, setting goals and objectives, treatment plan, interventions, data collection, and evaluation). Students will participate in supervision and clinical experiences within the context of community-dwelling older adult populations.

Co-requisites: CONSVTY 369.

CONSVTY 399A Omni Ensemble (A) Credit: 1
Omni ensemble focuses on the fundamental principles of playing violin, viola, cello, and bass effectively within an ensemble setting. The curriculum is centered on the tenets of fine musicianship, including expressivity, characteristic tone, precise intonation, and healthy posture. The Omni ensemble provides instruction and group playing experience to all members of the UMKC community who demonstrate basic proficiency on a string instrument, and to Conservatory of Music and Dance students studying a secondary string instrument.

Prerequisites: Permission from the instructor.

CONSVTY 399B Omni Ensemble (B) Credit: 1
Omni ensemble focuses on the fundamental principles of playing violin, viola, cello, and bass effectively within an ensemble setting, and this course is designed to refine students' performance skills on a secondary string instrument and teaching skills through planning and leading rehearsal segments. The central goals of the course are to: refine skills needed to teach effectively in a string ensemble setting; recognize strengths and weaknesses as a string player and teacher of string players; and implement strategies to continue to improve teaching.

Prerequisites: Successful completion or concurrent enrollment in CONSVTY 381 Instrumental Conducting and permission of the instructor.
CONSVTY 399C Omni Ensemble (C) Credits: 2
Omni ensemble focuses on the fundamental principles of playing violin, viola, cello, and bass effectively within an ensemble setting. The curriculum is centered on the tenets of fine musicianship, including expressivity, characteristic tone, precise intonation, and healthy posture. The central goals of the course are recognition of strengths and weaknesses as a string player; implementation of strategies to improve performance through daily practice; and refinement of expressivity, tone, intonation, and posture on a primary string instrument.
Prerequisites: Permission of the instructor.

CONSVTY 404 Jazz Improvisation IV Credits: 2
This class is a continuation of Jazz Improvisation III. This course features in-depth analyses of the blues and free improvisation focusing on rhythm changes and bii-tonal/polycrtonal chords. Course includes an in-depth analysis of styles from Dixieland to contemporary jazz. A strong emphasis is places on solo construction and development of individual styles.
Prerequisites: CONSVTY 304.

CONSVTY 405 Philosophical and Pragmatic Foundations of Music Education Credits: 3
This course experience guides students in developing philosophical and social/historical frameworks along with practical skills to assist them in addressing varied opportunities and challenges as a music educator in contemporary American schools.
Prerequisites: Approval of instructor.

Co-requisites: CONSVTY 411A.

CONSVTY 407 Audio Intern Program Credits: 1-3
Practical recording experience interning with Conservatory recording and music production labs with one lecture weekly.

CONSVTY 408 Music in Therapy: Adults Credits: 3
Lecture and clinical demonstration of theory and practice of music therapy with adult clients.
Co-requisites: CONSVTY 369.

CONSVTY 409 Music in Therapy: Children Credits: 3
Lecture and clinical demonstrations of theory and practice of music therapy with children.
Co-requisites: CONSVTY 369.

CONSVTY 410 Internship Credit: 1
A minimum of 900 hours of supervised clinical experience at a Rostered site approved by the American Music Therapy Association or an Affiliate site approved by UMKC Conservatory Music Therapy faculty, to be taken after all other course work for the music therapy degree, excepting any advanced coursework, is completed.

CONSVTY 411A Field Experience in Music Credit: 1
To introduce music students to a critical examination of the complex nature of teaching, learning, children, and the music classroom/ensemble setting. Students will be expected to spend 30 hours observing, participating, planning and teaching in an assigned music classroom environment during the semester.
Co-requisites: CONSVTY 405.

CONSVTY 411B Field Experience in Music Credit: 1
To introduce music students to secondary school settings and further develop observation, planning and teaching skills. Students will be expected to spend 30 hours in a middle/junior high school music classroom and 30 hours in a high school music classroom for a total of 60 hours during the semester.
Prerequisites: CONSVTY 411A.

Co-requisites: CONSVTY 386 (or CONSVTY 387).

CONSVTY 411C Field Experience in Music Credit: 1
To introduce music students to elementary school settings and continue to refine observation, planning and teaching skills in secondary school music settings. Students will be expected to spend 30 hours in an elementary school music classroom and 30 hours in either a middle school/junior high or high school music classroom.
Prerequisites: CONSVTY 411B.

Co-requisites: CONSVTY 385.

CONSVTY 412A Student Teaching Music in Elementary School Credits: 4-12
Observation, planning and teaching in an elementary music classroom setting. Students will be expected to spend a minimum of seven weeks teaching full-time under supervision.
Prerequisites: CONSVTY 411C.
CONSVTY 412B Student Teaching Music in Secondary School Credits: 4-12
Observation, planning and teaching in a middle school/junior high or high school music classroom setting. Students will be expected to spend a minimum of seven weeks teaching full-time under supervision.
Prerequisites: CONSVTY 411C.

CONSVTY 417 Opera Workshop Credit: 1
Introduction to opera and opera performance techniques. Class will include performance of opera scenes.

CONSVTY 417E Scene Study Credits: 2
Preparation, rehearsal and performance of scenes from opera, operetta and music theatre. Scenes will be determined and assigned based on student's needs and development. One-act operas may also occasionally be produced in this class.

CONSVTY 417F Opera Role Preparation and Audition Techniques Credit: 1
Students will work on specific audition techniques for the operatic solo singer, which may include dramatic interpretation of repertoire, stage movement, resume building, and other aspects to assist the performer in the audition process.
Prerequisites: CONSVTY 417, Undergraduate Conservatory Student.

CONSVTY 421A Music Theory Review For Graduate Students Credits: 1-3
An intensive review with emphasis placed on analysis.

CONSVTY 421B Aural Skills Review for Graduate Students Credits: 1-3
An intensive review of ear training and sight singing.

CONSVTY 422A Music History Review (early) Credits: 1-3
Graduate-level review of music in Western civilization from antiquity to 1750. Outside listening is required.

CONSVTY 422B Music History Review (Late) Credits: 1-3
Graduate-level review of music in Western civilization from 1750 to the present. Outside listening is required.

CONSVTY 422C Music History Review Credits: 1-3
Graduate-level review of music in Western civilization from antiquity to the present. Outside listening is required.

CONSVTY 423 Business Jazz And Commercial Music Credits: 3
An introduction to the various elements of the music industry, including production, marketing, unions, contracts, broadcasting, licensing agreements and copyrights.

CONSVTY 424 Acoustics Credits: 3
Study of the propagation of sound, the psychology and physiology of hearing, the acoustics of instruments, and of rooms, and tuning systems.
Available for graduate credit.

CONSVTY 425A Arranging for Choral Groups Credits: 2
Practice in transcribing vocal music of the current pop idiom. Analysis and writing in contemporary harmonic idioms. Stylistic analysis of solo and choral writing in operettas and musical plays. Scoring for mixed voices, men's voices, and women's voices.
Prerequisites: CONSVTY 242.

CONSVTY 425B Arranging Instrumental Credits: 2
Arranging Instrumental.
Prerequisites: CONSVTY 242.

CONSVTY 426B Jazz Arranging for Small Ensembles Credits: 2
This course will teach the art of calligraphy as well as the techniques of arranging and orchestration for small jazz ensembles for up to five horns. The course will also include an in-dept study of basic voicings, instrumental sonorities, and some extended forms using intensive listening and score study. UMKC combos, or top Kansas City professionals, will perform final assignments.
Prerequisites: CONSVTY 311.

CONSVTY 426C Jazz Arranging for Big Bands Credits: 2
This course is a continuation of Jazz Arranging for small ensembles. It will cover the basics of arranging and orchestration techniques for big bands. It includes an in-depth study of basic voicing and instrumental sonorities using intensive listening and score study. The students will have a chance to hear their final arrangements performed at the end of the semester by the Concert Jazz Band.
Prerequisites: CONSVTY 426B.

CONSVTY 427 18th-Century Counterpoint Credits: 2
Analysis and writing in 18th century style and forms including canon, invention and fugue.
Prerequisites: CONSVTY 242.

CONSVTY 428 Introduction to Post-Tonal Theory Credits: 3
Analysis and writing in contemporary styles.
Prerequisites: CONSVTY 242.
CONSVTY 431 Orchestration II Credits: 2
A detailed study of the scores of major orchestral and wind ensemble works, plus the application of orchestrational concepts in the creation or orchestration of an original piece of music.
**Prerequisites:** CONSVTY 331A.

CONSVTY 433 Composition Recital Credits: 3
Preparation and performance of the student's original compositions at one or more concerts sponsored by UMKC Conservatory of Music, with a total of 50 to 60 minutes performance time.
**Prerequisites:** CONSVTY 333.

CONSVTY 435 Psychological Foundations of Music Credits: 3
The study of the psychological aspects of music including perception, cognition, affect, and preference. An introduction measurement and experimental research including statistical techniques.

CONSVTY 437 Computer Literacy for Musicians Credit: 1
Computing skills for the music teacher. Study of the computer as a tool for music majors who will teach in public school music classes, direct ensembles, or teach at the college or university level. Hands-on practice with file creation and editing, graphics and character set generation, data analysis, preparation of computer based instruction, and data retrieval. For upper level undergraduate and graduate students.

CONSVTY 438 Creative Collaboration: Ideas and Strategies Credits: 3
Creative Collaboration: Ideas and Strategies investigates the history of collaboration in the arts since the turn of the 20th century. While case studies are drawn from the arts, students from any discipline and field will explore creative collaboration together. The goal of the class is to create a large-scale work in multidiscipline groups. Groups will vary depending on enrollments, but thinking outside the box and full participation regardless of individual discipline is required. Course is open to students in any field and discipline.

CONSVTY 440 Jazz Keyboard Techniques I Credits: 2
This course is designed for instrumentalists and music majors developing skills needed to harmonize tunes at the piano and effectively comp in the mainstream jazz group. It is meant to give the student an organized approach for exploring any harmonic style.

CONSVTY 441 Jazz Keyboard Techniques II Credits: 2
Jazz Keyboard Techniques II

CONSVTY 450 Music and Film Credits: 3
This course is designed to develop skills in the teaching of jazz and commercial music. Students will be exposed to a variety of materials, techniques and philosophies and trained in various techniques of rehearsing and conducting jazz ensembles, including the study of scores and recordings of different styles and rehearsal of the Conservatory's jazz ensembles. Includes an emphasis on structuring jazz and studio music curriculum at the College level.
**Prerequisites:** CONSVTY 381.

CONSVTY 454 Advanced Seminar in Music Theory Credits: 3
Advanced Seminar in Music Theory offers a rotating option of topics in advanced music theory drawn from the research interests and expertise of the music theory faculty.
**Prerequisites:** CONSVTY 390.

CONSVTY 457 Vocal Literature I Credits: 2
Literature for the solo voice. A course covering the literature from 1600 to present times, illustrated by recordings and members of the class and the instructor. Required for B.M. voice majors.

CONSVTY 458 Vocal Literature II Credits: 2
A continuation of CONSVTY 457.

CONSVTY 460 Organ Literature I Credits: 2
A survey of organ music from the 15th century through 1750.

CONSVTY 469 Organ Literature II Credits: 2
A survey of organ music from 1750 to the present.

CONSVTY 471 Jazz/Commercial Music Pedagogy Credits: 2
This course is designed to develop skills in the teaching of jazz and commercial music. Students will be exposed to a variety of materials, techniques and philosophies and trained in various techniques of rehearsing and conducting jazz ensembles, including the study of scores and recordings of different styles and rehearsal of the Conservatory's jazz ensembles. Includes an emphasis on structuring jazz and studio music curriculum at the College level.
**Prerequisites:** CONSVTY 381.

CONSVTY 490 Independent Study Credits: 1-3
Intensive reading, research projects, creative work, or special performance in the student's major field, selected by the student in consultation with the appropriate faculty.
CONSVTY 491B Pedagogical Practices I Voice Credits: 2
CONSVTY 491C Pedagogical Practices I Organ Credits: 2
CONSVTY 491D Pedagogical Practices I Strings Credits: 2
CONSVTY 491K Pedagogy of Music Theory Credits: 3
Pedagogy of Music Theory
CONSVTY 492B Pedagogical Practices II Voice Credits: 2
A laboratory experience that includes teaching applied voice in preparation for an end of semester concert experience. The course content includes introduction to skill sets required for teaching applied voice and applied voice studio budget and organization.
Prerequisites: CONSVTY 491B.
CONSVTY 492D Pedagogical Practices II Strings Credit: 1
CONSVTY 494 Performance Styles Credits: 2
A practical approach to the music of the Medieval, Renaissance, Baroque, Early Classical and Contemporary eras through performance. May be repeated for credit. Audition required.
CONSVTY 497 Seminar-Workshop in Music Credits: 1-4
Special courses in techniques, theory, and repertoire taught by the Conservatory staff and visiting specialists.
CONSVTY 497AI Seminar-Workshop in Music Credits: 1-4
Special courses in techniques, theory, and repertoire taught by the Conservatory staff and visiting specialists.
CONSVTY 497AM American Music Company Choral Reading Sessions Credits: 1-4
CONSVTY 497AR Seminar-Workshop In Music Credits: 1-4
CONSVTY 497CP Seminar - Workshop in Music Credits: 1-4
CONSVTY 497CT Seminar Workshop in Music Credits: 1-4
Seminar Workshop in Music
CONSVTY 497ECM Seminar-Workshop In Music Credits: 1-4
CONSVTY 497GC Seminar-Workshop In Music Credits: 1-4
Special courses in techniques, theory, and repertoire taught by the Conservatory staff and visiting specialists.
CONSVTY 497GTR Seminar-Workshop In Music Credits: 1-4
Seminar-Workshop In Music
CONSVTY 497HB Seminar Workshop in Music Credits: 1-4
CONSVTY 497HDJ Seminar-Workshop In Music Credits: 1-4
Seminar-Workshop In Music
CONSVTY 497HT Seminar Workshop in Music Credits: 1-4
Special courses in techniques, theory, and repertoire taught by the Conservatory staff and visiting specialists.
CONSVTY 497IN Seminar-Workshop in Music Credits: 1-4
Special courses in techniques, theory, and repertoire taught by the Conservatory staff and visiting specialists.
CONSVTY 497JDT Seminar Workshop in Music Credits: 1-4
Special courses in techniques, theory, and repertoire taught by the Conservatory staff and visiting specialists.
CONSVTY 497JI Seminar-Workshop In Music Credits: 1-4
CONSVTY 497JIM Seminar-Workshop in Music Credits: 1-4
Special courses in techniques, theory, and repertoire taught by the Conservatory staff and visiting specialists.
CONSVTY 497JKI Seminar-Workshop in Music Credits: 1-4
Special courses in techniques, theory, and repertoire taught by the Conservatory staff and visiting specialists.
CONSVTY 497JP Seminar Workshop in Music Credits: 1-4
Special courses in techniques, theory, and repertoire taught by the Conservatory staff and visiting specialists.
CONSVTY 497JPP Seminar-Workshop In Music Credits: 1-4
Seminar-Workshop In Music
CONSVTY 497MU Seminar Workshop in Music Credits: 1-4
CONSVTY 497NG Seminar-Workshop in Music Credits: 1-4
CONSVTY 497OB Seminar-Workshop in Music Credits: 1-4
CONSVTY 497OL Seminar-Workshop in Music Credits: 1-4
CONSVTY 497PL Seminar Workshop In Music Credits: 1-4
CONSVTY 497SI Seminar-Workshop In Music Credits: 1-4
CONSVTY 497ST Seminar Workshop in Music Credits: 1-4
Special courses in techniques, theory, and repertoire taught by the Conservatory staff and visiting specialists.

CONSVTY 498 Research Problems Credits: 2
Individual study under the direction of a faculty adviser, leading to the writing of a formal paper. A public, non-graded presentation of the paper with performance examples is required.

Counseling Psychology and Counselor Education (CPCE)

Courses
CPCE 230 Effective Interpersonal Communication Credits: 3
Theory, and research on interpersonal relationships; students will learn effective communication skills, including understanding verbal and nonverbal behavior, listening, and empathy.

CPCE 400 Intro to Counseling Psychology Credits: 3
This course will provide an overview of the profession of counseling psychology. Presentations and assignments with the origins and history of counseling psychology, research and intervention strategies used by counseling psychologists, and current trends in the field. It is important to note that although counseling strategies will be reviewed, this course will not focus on developing or practicing counseling skills.
Prerequisites: 6 hours in psychology, including PSYCH 210, or be advanced students in Education.

CPCE 425 Positive Psychology Credits: 3
Introduction to current theory and empirical research in positive psychology. Topics explored include happiness, self-esteem, empathy, friendship, optimism, love, achievement, strengths, mindfulness, spirituality, and hope.

Criminal Justice and Criminology (CJC)

Courses
CJC 101 Introduction To Criminal Justice Credits: 3
This introductory overview course is designed to familiarize students with the three main components of the adult criminal justice system: police, courts, and corrections. The course will investigate the viewpoints of offenders, victims, social scientists, the general public, and workers in the system on diverse issues of social control, criminal behavior, treatment and punishment.

CJC 210 Introduction To Statistics In Sociology/Criminal Justice Credits: 3
A first course in the statistical analysis of quantitative data. Course emphasizes descriptive statistics, probability theory, parameter estimation, bivariate hypothesis testing, and computer applications.
Prerequisites: MATH 110, MATH 116 (or equivalent).

Cross Listings: SOCIOL 263.

CJC 215 Methods Of Criminological Research Credits: 3
A seminar which explores the interrelationships between sociology theory, research methods and statistics. May focus on major contemporary issues building on and integrating knowledge obtained in previous courses.

CJC 220 Theoretical Criminology Credits: 3
A comprehensive examination of the major criminology theories, their philosophical assumptions, and the socio-historical context in which they were articulated.

CJC 240 Delinquency And Juvenile Justice Credits: 3
This course focuses on the nature, extent and theoretical explanations of delinquency and the history and philosophy behind the juvenile justice system in terms of the roles played by law enforcement, juvenile courts, and corrections. Juvenile groups such as status offenders, delinquents, gang members, victims, and juveniles adjudicated as adult criminals will also be examined.

CJC 280 Gangs and Crime Credits: 3
This course will provide students with an overview of what is known about street gangs. Specifically, the course will cover definitional issues, gang organization and structure, gang culture, gang member onset and desistance, among other issues related to criminal street gangs. This course will also encourage students to think critically about communities, crime, and group formation.
CJC 282 Criminal Justice & Criminology in Popular Media Credits: 3
This course examines criminology and criminal justice as it is represented in popular film to explore critically the impact media has on the public's perception of the criminal justice system, the origin of criminal behavior, and the broad sociological constructs of criminology. A key focus is the media's power to shape criminal justice policy and practice.

CJC 332 Race, Class and Justice Credits: 3
This course examines the intersection of race and class as it relates to crime and justice. Specifically, the course focuses on race and class in relation to criminological theory and the application of justice system practices and policies.

Cross Listings: BLKS 480.

CJC 350 Social Deviance Credits: 3
The dominant sociological perspectives on deviance will be discussed with special attention given to the processes that define behavior and persons as deviant and the impact of such definitions on social relationships and identity.

Cross Listings: SOCIOL 320.

CJC 351 Policing In The Community Credits: 3
The purpose of this class is to introduce the student to police operations and the effectiveness of different police programs. The material discussed in class focuses on empirical evaluations of police effectiveness, and the role of the police in today's society. This class is divided into four broad areas: the nature and effectiveness of patrol; criminal investigations; special operations including crackdowns, responses to domestic assaults, and hot spot policing; and the latest crime prevention strategies, such as community oriented policing and problem solving.

CJC 354 Policing in America Credits: 3
A comparison of law enforcement and peace-keeping functions of the police provides a basic theme for the course, with examination of several topics related to police accomplishing these functions. Some of the topics covered include police discretion, police professionalism, the police officer as a bureaucratic agent, and police-community relations.

CJC 361 Principles & Practices of Criminal Courts Credits: 3
The course examines the American criminal judicial system, including the history, philosophy, and changing nature of criminal courts. The activities of lawyers, judges, and related professionals are emphasized, and current topics involving the criminal court are discussed.

CJC 364 The Supreme Court And The Criminal Process Credits: 3
Course examines recent Supreme Court decisions on the constitutional aspects of the administration of justice. Topics include the nationalization of the Bill of Rights and jurisdiction with an emphasis on problems involving the Fourth, Fifth, Sixth, Eighth, and 14th Amendments.

CJC 370 Principles Of Corrections Credits: 3
This course explores adult institutional and community-based corrections in the United States. Major areas examined include the evolution of corrections, the process of correctional reform, adult offenders and prison culture, treatment and rehabilitation of offenders, intermediate sanctions, and correctional workers.

CJC 371 Community Corrections Credits: 3
This course will examine intermediate sanctions in the United States, such as probation, halfway houses, boot camps, among others. Specifically, the origin and proliferation of the use of corrections in the community will be explored in depth. The effectiveness of several major community correctional strategies will be explored through a review of the research literature base. Several issues will be highlighted including (but not limited to ) ethical constraints, political problems, and treatment effectiveness in light of the use of community sanctions.

CJC 380 Psycho-Social Determinants of Crime & Delinquency Credits: 3
This course offers an interdisciplinary approach to the study of crime and delinquency outlining biological, developmental, psychological, social-psychological, and societal factors associated with criminal behavior. The course also focuses on ways in which these factors may be integrated to solve, explain, and prevent crimes.

CJC 383 Policies Of Drug Use And Control Credits: 3
Utilizing both historical and contemporary information, this course provides an assessment of the "drug problem" in the U.S. and policies of control developed in response to the problem. Drug use criminalization, legalization, medical treatment, and prevention strategies and related issues are considered in regard to scientific knowledge related to the patterns, causes, and impact of substance abuse.

CJC 385 Victimization Credits: 3
This course addresses the study of crime, criminals and victims. It examines the relationship between victims and offenders. Special treatment is given to criminological as well as victimological theories. A segment of the course will address the sporadic nature of juvenile crime. The course will examine viable strategies to reduce levels of victimization. In the final analysis the course will offer crime prevention strategies.

CJC 390 New Dimensions In Criminal Justice Credits: 3
Examination of contemporary topics, issues or problems related to the development of justice and/or operations in response to criminal and related behaviors addressed by the justice system. May be repeated for credit when the topic changes.

CJC 430 Women, Crime And Criminal Justice Credits: 3
This course will focus on the experiences of women and girls with crime in America. The primary areas studied will be females as victims, offenders, and professionals in the criminal justice system. Various criminological theories and research will also be examined in light of gender.
CJC 431 Hate & Bias Crimes Credits: 3
The purpose of this course is to examine the development and enforcement of hate crime law within our legal system. Discussion focuses on the causes and consequences of hate crimes, the constitutional issues associated with bias crime statutes, and the effectiveness of formal and informal social controls for eliminating hate and bias crimes.

CJC 435WI Gender And Law Credits: 3
This course examines the contemporary legal rights and obligations of women in light of the historical relationships between the social status of women and their legal status. Topics investigated include proprietary and contractual rights, family law, employment practices, educational opportunities, and women as victims and perpetrators of crime.
Prerequisites: RooWriter.

CJC 481 Restorative Justice Credits: 3
This course is an introduction to the concept of restorative justice. The course examines the roots of the concept, its theoretical perspective, and its applications in juvenile justice, mediation and correctional settings.

CJC 482 The Death Penalty In America Credits: 3
This course takes a sociological look at the most extreme punishment currently in use in the United States. Society debates its value without giving much weight to the research which social science conducts. Indeed, the political domain frequently misrepresents the data that is available. The course evaluates the adequacy of the research and separates the strands of the debates in order to understand the role of the death penalty in our society.

CJC 484 White Collar Crime Credits: 3
This course examines activities variously called white-collar crimes, crimes of privilege, corporate and government crimes, and upperworld crimes. The purposes of the course are (1) to describe, analyze, and assess social impact of these offenses, (2) to examine the capacity of existing theories in criminology and social deviance to account for those activities, (3) to describe the responsibilities, powers, and activities of those agencies which have jurisdiction over them, and (4) to assess the effectiveness of various legal sanctions in controlling such activities and to review the problems involved in legislation intended to achieve that control.

CJC 488 Mentoring Juvenile Justice System-Involved Youth Credits: 3
Youth mentoring experience in a juvenile justice setting with required training and classroom study.
Prerequisites: successful background check completion.

CJC 490 Directed Studies In Criminal Justice And Criminology Credits: 1-3
Individual research and study in the student's field of interest as approved and directed by major professors. The work involves examination and reporting of selected problems affecting the various agencies of our legal system. Only two of the 490 sequence courses and up to 3 credit hours can be applied to the major. A. Law Enforcement B. Court Operations and Administration C. Corrections D. Legal Theory and Philosophy E. Criminological Theory F. Sociology of Law.

CJC 491 Internship In Criminal Justice Credits: 3-6
Intern experience under faculty supervision in local, state, federal or private agencies working with justice system involved offenders.
Prerequisites: CJC 101, junior standing.

CJC 492 Topics In Criminal Justice Credit: 1
Specialized, short courses with focused examination of particular topics germane to the study of the justice system. May be repeated for credit.

CJC 495WI Capstone: Criminal Justice And Criminology Credits: 3
This course is designed to integrate student's program of study in the major of criminal justice and criminology. The class examines current conditions of the justice system with respect of race, gender and social class.
Prerequisites: RooWriter.

Curriculum and Instruction (EDUC-C&I)

Courses
EDUC-C&I 497 Individual Study Credits: 1-6
Guided study of a selected topic in curriculum and instruction.

Dance (DANCE)

Courses
DANCE 107 Dance Production I Credit: 1
A study of the fundamentals of dance production including sound design and recording techniques, video and video editing, lighting design for dance, stage make-up, and costume design and construction. Laboratory projects will be coordinated with actual dance productions.

DANCE 108 Dance Production II Credit: 1
Continuation of DANCE 107.
DANCE 118 Analysis of Movement Credit: 1
This course in movement analysis will explore various aspects of modern dance. The topics that will be introduced are related to: the differences between ballet vocabulary and modern dance vocabulary, the reason and method behind the creation of modern dance, codified modern dance techniques versus non-codified modern dance techniques, Laban Movement Analysis, the principles of the Graham technique versus folding/unfolding, the Doris Humphreys technique and Lester Horton’s fortification. Class discussions, readings, and examples of various works will be used to analyze these topics. Basic improvisational techniques will be utilized to explore these topics.

DANCE 120 Ballet Pedagogy and Analysis Credit: 1
A study of ballet pedagogy, the structure of classical ballet steps, and analysis of movement including basic anatomy, vocabulary and the aesthetics of ballet.

Prerequisites: Dance major.

DANCE 141B Ballet Technique and Theory I Credits: 3
Fundamentals of technique of classical ballet at the intermediate level with attention given to strengthening, stretching, anatomical alignment, and developing the ballet aesthetic. This course includes pointe work. Non-Majors by audition.

DANCE 141M Modern Dance Technique and Theory I Credits: 3
This intermediate level dance course is based on the technique and theory of Lester Horton and fundamental elements of Martha Graham. Designed to fortify, stretch, and strengthen the body, the technique is codified into a series of studies designed to cover a wide range of movement vocabulary. Non-Majors by audition.

DANCE 142B Ballet Technique And Theory II Credits: 3
Continuation of DANCE 141B.

DANCE 142M Modern Dance Technique and Theory II Credits: 3
Continuation of DANCE 141M.

DANCE 213C Men's Class I Credit: 1
This course is designed to meet the needs of the male dancer and will focus on developing the technique, strength, and agility needed for a professional career.

DANCE 213D Men's Class II Credit: 1
Continuation of DANCE 213C.

DANCE 216 Composition I Credits: 2
An introduction to dance composition focused on the exploration of improvisation, spatial design, sources of movement, and the basic elements of space, time, shape, and motion with additional emphasis on dynamics, rhythm, and sound sources for choreography. With these skills, students are building a foundation and developing tools in creating choreography.

DANCE 218A Composition II Credits: 2
Continuation of Composition I, further exploring of the fundamentals of choreography including locomotion studies, categories of motion, axial movement and sequential and non-sequeter movement. Focusing on the development of solo works and developing choreographic process.

DANCE 218B Composition III Credits: 2
An introduction to the fundamentals of choreography, including the development of dance compositions through the exploration and definition of specific studies, including floor design, shape design, motion design, and time design. Restricted to dance majors.

DANCE 241B Ballet Technique And Theory III Credits: 3
Continuation of DANCE 142B at the intermediate/advanced level including pointe. Restricted to dance majors.

DANCE 241M Modern Dance Technique And Theory III Credits: 3
Continuation of DANCE 142M, on the intermediate/advanced level. Restricted to dance majors.

DANCE 242B Ballet Technique And Theory IV Credits: 3
Continuation of DANCE 241B, at the intermediate/advanced level including pointe work.

DANCE 242M Modern Dance Technique And Theory IV Credits: 3
Continuation of DANCE 142M, on the intermediate/advanced level.

DANCE 260 Jazz I Credit: 1
A study of Western Theatrical Dance focusing on Jazz and Afrp-Caribbean based forms.

DANCE 261 Jazz II Credit: 1
Continuation of DANCE 260 with a more in depth study of Western Theatrical Dance focusing on Jazz and Afro-Caribbean based dance forms.

DANCE 301 Advanced Movement Analysis for Dancers Credits: 3
A study of the body which relates specifically to the needs of dancers. Emphasis is placed upon an understanding of the skeletal system, the muscular system, their specific importance to dance technique, and dance injuries and prevention.
DANCE 303 Pilates Credit: 1
A non-impact body conditioning method based on principles of abdominal and scapular stabilization. Introduction to the essential and intermediate mat work, which consists of non-weight bearing exercises. Designed to give the student an understanding of the principles and muscular emphasis behind the Pilates method. Proper alignment, full range of motion, and patterned breathing will be emphasized.
**Prerequisites:** DANCE 301.

DANCE 304 Fundamentals of Body Alignment and Pilates Credit: 1
A course that is designed for students to develop a greater understanding of body alignment and how to strengthen body alignment through muscular conditioning and Pilates. Non-impact body conditioning exercises that focus on proper alignment, full range of motion, muscular strengthening, core strengthening, muscular imbalances, patterned breathing, and injury prevention will be emphasized. Developing total body strength, alignment, and flexibility through a series of researched dance specific exercises that are carefully designed to reach all muscle groups are presented.
**Prerequisites:** DANCE 301.

DANCE 305 History Of Dance I Credits: 3
A study of the development of Western theatrical dance forms, from its roots in the European court through the 20th century. Beginning with a brief overview of "early dance," emphasis will be placed on the study of Renaissance theatre spectacles to the rise of the professional dancer culminating with the 20th century contemporary ballet. This course includes outside reading and writing intensive requirements.

DANCE 306 History Of Dance II Credits: 3
Continuation of DANCE 305 exploring the development of dance as a 20th century Western theatre dance form. Development of modern dance, modern dance pioneers, modern dance development in Europe, African-American contribution to modern dance, modern dance influence on the ballet and the Avant-Garde and Post Modern movements will be studied. Outside reading and writing intensive requirements included.

DANCE 307 Every Body Dances Credits: 3
From Dancing with the Stars and So You Think You Can Dance to Dancing in One World. This classroom—based lecture course will explore what dance is and why people dance from a cultural and historical perspective. The course will include reading, video viewing, lectures, discussions, and participation in dance experiences.

DANCE 310 Conservatory Dance Ensemble Credit: 1
A course designed for the performance component of the BFA degree. Students develop and refine professional performance skills through a diverse repertory of choreographic works and backstage theatre activities. All aspects of a complete performance experience including rehearsals, backstage operations, crew activities, sound operation, stage management, costume management, videography, and company class are developed, culminating with fully produced theater performances, special projects, collaborations, and lecture demonstrations.
**Prerequisites:** DANCE 107, DANCE 108.

DANCE 313A Partnering/Pas De Deux I Credit: 1
This course is designed to meet the needs of the 300/400 level ballet student and will teach the elementary skills of partnering such as turns, lifts, promenades, and balances.
**Prerequisites:** DANCE 341B (or higher).

DANCE 313B Partnering/Pas De Deux II Credit: 1
Continuation of DANCE 313A.
**Prerequisites:** DANCE 341B (or higher).

DANCE 319A Composition IV Credits: 2
An intermediate course in Dance Composition focusing on choreographic clarity and intent. Topics such as abstraction, motif and development, and prop and costumes will be explored.
**Prerequisites:** DANCE 218B.

DANCE 319B Advanced Choreographic Design Credits: 2
An intermediate course in Dance Composition focusing on choreographic clarity and intent. Topics such as abstraction, motif and development, and prop and costumes will be explored.
**Prerequisites:** DANCE 319A.

DANCE 341B Ballet Technique And Theory V Credits: 3
Continuation of DANCE 242B, at the advanced level including pointe work. Restricted to dance majors.

DANCE 341M Modern Dance Technique And Theory V Credits: 3
Continuation of DANCE 242M on the advanced level. Restricted to dance majors.

DANCE 342B Ballet Technique And Theory Vi Credits: 3
Continuation of DANCE 341B.

DANCE 342M Modern Dance Technique And Theory Vi Credits: 3
Continuation of DANCE 341M.
DANCE 403A Modern Technique For Non-Majors Credit: 1
The applied and theoretical study of ballet including traditional ballet vocabulary. Written assignments required.

DANCE 403A Modern Dance Repertory I Credit: 1
Modern Dance Repertory is an advanced course for modern dance majors to study and perform the repertoire and works of renowned contemporary choreographers. It is a parallel to the Ballet Variations course which teaches the repertoire of ballet master works.

Prerequisites: DANCE 341M (or higher).

DANCE 404A Ballet Technique Non-Majors I Credit: 1
Continuation of DANCE 403A.

DANCE 405A Modern Dance Repertory I Credit: 1
Modern Dance Repertory is an advanced course for modern dance majors to study and perform the repertoire and works of renowned contemporary choreographers. It is a parallel to the Ballet Variations course which teaches the repertoire of ballet master works.

Prerequisites: DANCE 341M (or higher).

DANCE 405B Modern Dance Repertory II Credit: 1
Continuation of DANCE 405A.

Prerequisites: DANCE 341M (or higher).

DANCE 413A Advanced Pas De Deux I Credit: 1
Advanced pas de deux is designed to meet the needs of the 400 level ballet student with emphasis placed on perfecting advanced partnering skills. Students will have opportunity to learn pas de deux from great ballets giving students the experience and stamina of dancing entire pas de deux. The course provides coaching on both a stylistic approach and a technical approach to the performance of materials presented in class.

Prerequisites: DANCE 441B (or higher).

DANCE 413B Advanced Pas De Deux II Credit: 1
Continuation of DANCE 413A.

Prerequisites: DANCE 441B (or higher).

DANCE 414A Men's Variations I Credit: 1
Men's Variations is designed for the male ballet dancer. Students will have the opportunity to learn and perform renowned variations from the Romantic, Classical, and Neo-Classical periods of ballet. This class will give the male student a true professional coaching experience in their training as they prepare for stage.

Prerequisites: DANCE 341B.

DANCE 414B Men's Variations II Credit: 1
Continuation of DANCE 414A.

Prerequisites: DANCE 341B.

DANCE 415A Variations I Credit: 1
Variations is designed for the 400 level ballet student. The course will teach female variations to the pre-professional student. Students will have the opportunity to learn and perform renowned variations from Romantic, Classical and Neo-Classical periods of ballet. Students will also work in traditional practice tutus/costumes in order to give them a true professional experience in their training as they prepare for the stage.

Prerequisites: DANCE 342B.

DANCE 415B Variations II Credit: 1
Continuation of DANCE 415A.

Prerequisites: DANCE 342B.

DANCE 416A Performance Techniques I Credit: 1
A two-semester class rotation focusing on performance techniques of folk and character dances of various countries, traditional vocabulary of pantomime gestures, and theatrical dance forms including tap, ballroom, and jazz styles.

DANCE 416B Performance Techniques II Credit: 1
A two-semester class rotation focusing on performance techniques of folk and character dances of various countries, traditional vocabulary of pantomime gestures, and theatrical dance forms including tap, ballroom, and jazz styles.

DANCE 441B Ballet Technique And Theory VII Credits: 3
Continuation of DANCE 441B at the pre-professional level including pre-professional pointe work. Restricted to dance majors.

DANCE 441M Modern Dance Technique And Theory VII Credits: 3
Continuation of DANCE 441M at the pre-professional level. Additionally, this course is designed to prepare the student for auditioning and acquiring a performing career. Longer combinations with an emphasis on quick retention of material presented in class will be stressed. Restricted to dance majors.

DANCE 442B Ballet Technique And Theory VIII Credits: 3
Continuation of DANCE 442B, on the pre-professional level including pre-professional pointe work.

DANCE 442M Modern Dance Technique And Theory VIII Credits: 3
Continuation of DANCE 442M on the pre-professional level.
DANCE 493 Senior Capstone Project I Credit: 1
The first semester of the Senior Capstone Project includes planning, organization, and preparation of the final senior project of performance and choreography. Utilization of production techniques, creation or selection of repertoire of a solo work, and beginning the creation of original choreographic work in group form utilizing the tools previously developed from the student’s work in composition will be presented during two scheduled showings during the semester.
Prerequisites: DANCE 319B and appropriate technique levels.

DANCE 494 Senior Capstone Project II Credit: 1
A continuation of DANCE 493, the second semester of the Senior Capstone Project, is the culmination and juried public performance of a fully produced concert on the main stage to fulfill the requirements of the BFA in Dance. The student will present an original choreographic group work. In addition, the student will perform in two different dance idioms; including a solo that is self-choreographed or an approved masterwork.
Prerequisites: DANCE 493.

Decision Science and Operations Management (DSOM)

Courses
DSOM 309 Intermediate Business Statistics Credits: 3
This course emphasizes statistical applications in business, and students will complete research projects using one or more multivariate statistical techniques. Topics covered will include statistical software (such as SAS or SPSS), multiple regression, Chi-Square, analysis of variance, nonparametric methods, multivariate discriminant analysis, factor analysis, and a brief introduction to structural equation models.
Prerequisites: MATH 206 and STAT 235.

DSOM 326 Production/Operations Management Credits: 3
This course presents an introduction to the concepts, models, and methods of operations management. Students will study approaches to planning, scheduling, and controlling product and service facilities, processes, cost, quality, quantity, production, capacity, inventory, and distribution requirements. Computer applications and computer-based operations control systems will be introduced as a means to effectively manage the operations functions of both product and service organizations.
Prerequisites: ECON 202 and STAT 235; Bloch or BIT student with sophomore standing.

DSOM 346 Management Analysis Credits: 3
This course examines the application of various scientific and mathematical methods to decision making in management, and makes use of spreadsheets and other software to construct and analyze practical methods of real-world systems. Applications will be based on topics such as project management, decision analysis, scheduling, queuing systems, simulation, optimization/allocation models, forecasting, and profitability analysis.
Prerequisites: DSOM 326 and MIS 202.

DSOM 431 Quality and Process Improvement Credits: 3
A study of planning and managing effective quality and processes in organizations. Students are expected to master important quality management and process improvement tools including Six Sigma, Statistical Process Control, TQM, Theory of Constraints, and other contemporary tools via appropriate software, case studies, and projects.
Prerequisites: DSOM 309 and DSOM 326.

DSOM 487 Special Topics Credits: 3
Special topics in decision science and operations management.

Dental Hygiene (DENT-HYG)

Courses
DENT-HYG 3000 Dental Morphology And Occlusion Credits: 2
This course is designed to provide the dental hygiene student with a sound knowledge base in dental morphology and occlusion through discussion and laboratory experiences. Students will learn to identify anatomical structures of each tooth and be able to communicate these findings effectively with colleagues and patients in both verbal and written forms. Throughout the course, the clinical application and relevance of dental morphology in the practice of dental hygiene will be emphasized. Special consideration will be given to root morphology as it relates to periodontal instrumentation. Activities will include: identification of extracted teeth, terminology exercises, dental charting experiences and identifying classifications of occlusion.
DENT-HYG 3020 Dental Radiology Credits: 2
Lecture and clinical practice of dental radiographic procedures. Topics included are radiation hygiene, taking and developing radiographs, processing and mounting films, and radiographic interpretation. Clinical experience is required throughout the remaining semesters.
DENT-HYG 3030 Introduction to Histopathology of Oral Tissues Credits: 2
A comparison of the microscopic anatomy of healthy and diseased oral tissues. The major goal of this course is to integrate basic sciences (embryology, descriptive histology, and cell biology of oral tissues) with clinical sciences. The gap between the basic and clinical sciences is not always easy to bridge; this course is designed to bridge the "gap." This course provides students with an introduction to oro-facial histology and embryology and pathology that may arise from the tissues of the head, neck, and oral cavity.
Prerequisites: Dental hygiene student.

DENT-HYG 3080 Introduction to the Preventive Practice of Dental Hygiene Credits: 4
This course will introduce theories and rationales for basic clinical dental hygiene care (infection control, oral examination and fundamentals of instrumentation) in diverse populations. Practical application of specific clinical skills will be introduced in the classroom and applied in the clinical setting.

DENT-HYG 3080L Preclinical Dental Hygiene Credits: 2
This course emphasizes the practical application of the fundamental concepts and principles of patient care in a diverse society discussed in DENT-HYG 3080. Emphasis is placed on patient assessment and techniques of instrumentation for examination and dental hygiene treatment. After the student has mastered basic skills, he/she will begin to provide direct dental hygiene services.

DENT-HYG 3200 General and Oral Pathology Credits: 2-3
An introduction to the principles of general pathology and organ system pathology including inflammation, immunity and diseases of immune origin, genetic diseases, neoplasia with emphasis on oral cancer, and diseases of selected organ systems including pulmonary, cardiovascular, hematopoietic, endocrine, skeletal, gastrointestinal, hepatic, pancreatic and other systems as time permits.

DENT-HYG 3210 Applied Nutrition and Biochemistry Credits: 2
This course introduces biochemistry and nutrition, encouraging identification of sources and application of specific nutrients for health. Contents familiarize students with roles of nutrition and places emphasis on the hygienist's role as nutritional educator- utilizing skills of recognition, prevention and treatment of related disease(s) and support of good oral health. Topics build on previous knowledge of chemistry, biology and physiology in application to health, coupled with deficient/optimal nutrition. Students will utilize motivational interviewing pertaining to counseling to help patients assign values, prioritize, and meet agreed upon goals. The format will include face-to-face lectures, online supplements, short labs, and group assignments/presentations.
Prerequisites: CHEM 211 and CHEM 211L; LS-PHYS 217.

DENT-HYG 3220 Dental Biomaterials Credits: 2
This course is designed to provide the dental hygiene student with a sound knowledge base in the science and manipulation of dental biomaterials. Through lectures and laboratory session, the student's ability to make clinical judgments regarding the application of dental biomaterials and the ways in which materials react to the oral environment will be enhanced.

DENT-HYG 3260 Principles Of Periodontics Credits: 2
This course in Periodontics will cover the biological and clinical aspects of periodontal health and pathology. An introduction to the supporting structures of the teeth will provide the foundation of understanding pathogenesis, histopathology and subsequent therapeutic treatment of periodontal diseases. The dental hygienist's role in recognition, prevention and treatment of periodontal diseases and maintenance of periodontal health is examined.

DENT-HYG 3280C Dental Hygiene Clinic I Credits: 3
Students will further develop clinical skills and techniques learned in DENT-HYG 3080L and previous courses by providing services to patients.

DENT-HYG 3285 Seminar In Dental Hygiene I Credits: 2-3
This course expands on theory and background presented in DENT-HYG 3080. Topics include expanding dental hygiene skills required for the care of patients and continued development of problem solving abilities and critical thinking skills as they relate to the provision of dental hygiene care. Provide students with a more insightful view of the role of the dental hygienist in the delivery of comprehensive patient care.

DENT-HYG 3300 Radiographic Interpretation Credits: 0.5
The purpose of the course is to introduce interpretation of radiographic anomalies and pathology just prior to the clinical experience. Since there was little time for an emphasis on radiographic interpretation during your second year radiology course, this lecture and participation course supplement clinic instruction in diagnosis of the patient's oral needs and formulation of a treatment plan. Upon completion of this course, the student should be able to recognize simple pathology and radiographic anomalies.

DENT-HYG 3320 Oral Health Behavior Change Credits: 3
The purpose of this hybrid course is to prepare the junior dental hygiene student to effectively assess and individualize preventive oral health care through the use of brief motivational interviewing. The course will include evidenced based information in dental caries and caries risk assessment, caries preventive measures, introduction to periodontal disease, dental stains, and management of xerostomia, halitosis, and dental sensitivity, oral healthcare products and how to care for an oral appliance. The student will subsequently apply course concepts to facilitate patient behavior change in the clinical setting. Recommended preparation: a course in General Psychology.

DENT-HYG 3340 Principles Of Public Health Credits: 2
This course introduces the student to principles of public health, the field of epidemiology, health care delivery systems, public health terminology and teaching methodologies to use in culturally diverse community settings. Students will have the opportunity to assess a target population, plan, implement and evaluate appropriate programs. Students will also apply theories and skills of communication and education while preparing and presenting oral health education programs for various population groups.
DENT-HYG 4001 Clinical Oral Radiology Credit: 1
Clinical application of radiology principles taught in preceding terms. To provide clinical skills to safely make and interpret radiographic images for the provision of oral health care.

DENT-HYG 4020 Local Anesthesia And Pain Control Credits: 3
This course is designed to prepare dental hygiene students for the safe, effective administration of local anesthesia and nitrous oxide sedation. Included are content areas in anatomy, physiology, pharmacology, and emergency management as they relate to the administration of local anesthetics, nitrous oxide, and pain control. Laboratory sessions are structured to develop actual experiences in administration of local anesthetics and nitrous oxide. Various mechanisms for pain control are also covered. Methods of presentation include lecture, large group discussion, laboratory and clinical participation.

DENT-HYG 4040 Foundations of Teaching Credits: 2
This course provides an introduction to the evidence-based best practices in course design for students who are preparing for a career in teaching and for those who simply wish to learn more about classroom instruction. Students will explore outcomes centered course design and practical and effective instructional strategies. Content application activities include syllabus development, writing objectives, constructing lesson plans, preparing presentations and developing course management sites.

DENT-HYG 4060C Dental Hygiene Clinic II Credits: 2
The student will continue to develop competency in basic dental hygiene skills. Principles of periodontal techniques, such as non-surgical periodontal therapy, supportive treatment procedures and comprehensive patient care in a diverse society will be emphasized. The student will be asked to demonstrate professional management skills and productivity.

DENT-HYG 4065 Seminar in Dental Hygiene II Credit: 1
This seminar course is offered in conjunction with DENT-HYG 4060C, and expands upon theory and background presented in other dental hygiene courses within the curriculum which will involve further development of their critical thinking/problem solving skills regarding patient care. Students will be provided with further instruction regarding advanced instrumentation, cultural diversity, motivational interviewing and other technological advancements utilized in dental hygiene care.

Co-requisites: DENT-HYG 4060C.

DENT-HYG 4060C Dental Hygiene Clinic II Credits: 2
This course in Periodontics will provide and introduction to Phase II and III therapy. Periodontal decision making will be emphasized. The dental hygienists’ role in recognition, prevention and treatment of periodontal diseases and maintenance of periodontal health is further examined. Prerequisites: DENT-HYG 3260.

DENT-HYG 4060C Dental Hygiene Clinic II Credits: 2
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Co-requisites: DENT-HYG 4060C.

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This course in Periodontics will provide and introduction to Phase II and III therapy. Periodontal decision making will be emphasized. The dental hygienists’ role in recognition, prevention and treatment of periodontal diseases and maintenance of periodontal health is further examined. Prerequisites: DENT-HYG 3260.

DENT-HYG 4060C Dental Hygiene Clinic II Credits: 2
The student will continue to develop competency in basic dental hygiene skills. Principles of periodontal techniques, such as non-surgical periodontal therapy, supportive treatment procedures and comprehensive patient care in a diverse society will be emphasized. The student will be asked to demonstrate professional management skills and productivity.

DENT-HYG 4065 Seminar in Dental Hygiene II Credit: 1
This seminar course is offered in conjunction with DENT-HYG 4060C, and expands upon theory and background presented in other dental hygiene courses within the curriculum which will involve further development of their critical thinking/problem solving skills regarding patient care. Students will be provided with further instruction regarding advanced instrumentation, cultural diversity, motivational interviewing and other technological advancements utilized in dental hygiene care.

Co-requisites: DENT-HYG 4060C.

DENT-HYG 4060C Dental Hygiene Clinic II Credits: 2
This course in Periodontics will provide and introduction to Phase II and III therapy. Periodontal decision making will be emphasized. The dental hygienists’ role in recognition, prevention and treatment of periodontal diseases and maintenance of periodontal health is further examined. Prerequisites: DENT-HYG 3260.
DENT-HYG 4130 Introduction to Instructional Technologies and Online Learning Credit: 1
The web-based multimedia course will examine the mediated communication process using Internet tools and is designed to help the incoming student become prepared to succeed in their degree program using online technologies. Students will exam the changes and challenges associated with mediated synchronous and asynchronous technologies. The course will be delivered in four different modules.

DENT-HYG 4150 Portfolio Capstone Credit: 1
The capstone course serves as the culminating experience for students in the BSDH Degree Completion Program. During the Capstone course, students will create a coherent and cohesive body of work reflective of attainment of the competencies for the BSDHDC program—in the form of an e-Portfolio.

DENT-HYG 4210 Practice Management Credits: 3
Current relevant issues impacting dental hygiene practice are discussed. Dental practice economics, communicating and management in a diverse society are included. Also included in this course is the study of jurisprudence as it relates to the practice of dental hygiene.

DENT-HYG 4240 Ethics In Professional Practice Credit: 1
Study of ethics and ethical issue related to the practice of dental hygiene within a diverse society. Includes application of ethical principles to real-life situations.

DENT-HYG 4260 Senior Seminar Credits: 2
This course serves as a means of synthesizing information from all courses in the dental hygiene curriculum and applying content to patient cases and practice management issues. Case-based learning (CBL) will be utilized to review significant content areas as well as to introduce subjects not previously encountered during previous clinical experiences. Case based/problems based learning (PBL) with faculty facilitation will assist students in managing patient cases. This course is also designed to assist in preparing senior dental hygiene students for the written and clinical examinations required for licensure.

DENT-HYG 4260C Dental Hygiene Clinic IV Credits: 4
The student will have the opportunity to reach competency in all clinical skills. Emphasis will be placed on decision-making, problem-solving, critical thinking, appointment and time management. The course will focus on comprehensive dental hygiene care to a diverse population.

DENT-HYG 4320 Special Patient Care Practicum Credits: 2-4
Through outside agency affiliation, students will have the opportunity of applying the course content from Principles of Public Health, Dental Health Education and DHE-Practicum. Sites for participation include hospitals, nursing homes, and residential and day activity centers for developmentally disabled.

DENT-HYG 4340 Community Dentistry Practicum Credits: 2-4
The community dentistry practicum provides the student with an opportunity for personal exploration of the many settings of community dentistry. These experiences may lead the students into clinical activities or design and implementation of dental health educational programs. The student will have the opportunity to work with various community health professionals in the Kansas City area. The student will need reliable transportation and should expect some experiences to require travel. Possibilities for practicum experiences are broad and will be defined after an initial assessment of the student’s interest and goals. An individual learning contract will be written following the assessment. The student will be required to meet as a group periodically throughout the semester.

DENT-HYG 4350 Periodontal Therapy Practicum Credits: 1-4
This course is designed for the dental hygiene student who desires increased experience with periodontal skills. The course involves practical experience in the graduate periodontics clinic working with a periodontology resident. Two clinic sessions per week; one seminar scheduled weekly.

DENT-HYG 4360 Practice Management Practicum Credits: 3
Current relevant issues impacting dental hygiene practice are discussed. Dental practices, economics, communication and management are included. Practical application of course would include the development of a dental office operating manual.

DENT-HYG 4380 Research Practicum Credits: 2-4
This course provides an opportunity to apply the content in the previous course Introduction to Research Design. The protocol identified may be a basic science, clinical or community dental hygiene problem. The field experience may deal with a basic or applied, descriptive or explanatory research question.

DENT-HYG 4500 Seminar on Issues in Higher Education for Health Professionals Credits: 2-4
This course is designed to introduce the student to matters encountered in higher education. Specific to dental hygiene education. Weekly readings, assignments, and sessions will familiarize the student in topics such as: writing resumes and cvs, case-based learning, accreditation, promotion and tenure, and assessment.

DENT-HYG 4600 Evidence Based Decision Making in the Clinical Practice of Dental Hygiene Credits: 2-4
This course is designed for the graduate and degree completion dental hygiene student and expand on the student's basic knowledge of the dental hygiene process of care. Utilization of evidence based decision making skills will be explored in an effort to incorporate current scientific literature, personal clinical experience and patient preferences as it relates to the delivery of comprehensive patient care. Skills taught in this course will enhance background knowledge related to the dental hygiene process of care and help to foster an attitude of critical analysis and lifelong learning.

DENT-HYG 4620 Introduction to Educational Methodology Credits: 3
This course is designed to introduce the student to basic educational methodologies and to provide participants with a better understanding of the teaching/learning process. The course includes units on instructor/student relationships, educational approaches, educational ethics and professionalism, the scholarship of teaching and learning and curriculum theory.
DENT-HYG 4625 Dental Hygiene Administration Credits: 2
This course is designed for the post-certificate dental hygiene student. Major topic areas include accreditation of dental hygiene programs, the impact of National and State Board examinations on curriculum planning, selective admissions policies and procedures, faculty evaluation, promotion and tenure and students’ rights.

DENT-HYG 4630 Practicum in Dental Hygiene Administration Credits: 2-4
Under the supervision of the Director of Dental Hygiene, the student will gain actual experiences in the daily administration of a dental hygiene program. The student may contract for responsibilities such as admissions, budget preparations, course scheduling, report writing and student academic counseling.

DENT-HYG 4635 Practicum In Clinical Supervision Credits: 2-4
Under the supervision and permission of the Dental Hygiene Clinical Supervisor, the student will gain actual experience in the duties involved in coordinating the clinical education of a dental hygiene student. The student may contract for responsibilities such as, coordinating mock board examinations, maintaining student clinical records, developing faculty and student clinic schedules and report writing.

DENT-HYG 4640 Student Teaching and Conference I Credits: 2-4
Under the direction of a supervising professor, the student may select teaching experience in the classroom areas of their choice. The student develops behavioral course objectives, comprehensive lesson plans, test and examination items, classroom presentations, and prepares student evaluations in the selected classroom teaching areas. The student may select teaching assignments in one of the developed externship student teaching programs. Conferences will be held in conjunction with the course.

Prerequisites: DENT-HYG 4040, DENT-HYG 4620.

DENT-HYG 4650 Student Teaching and Conference II Credits: 2-4
The student will continue to develop teaching skills in laboratory and/or classroom areas as selected by the student under the direction of a supervising professor.

Prerequisites: DENT-HYG 4640.

DENT-HYG 4660 Independent Study in Dental Hygiene Credits: 1-4
This course is designed for the dental hygiene student who desires independent study of a particular problem or area of interest in dental hygiene education.

DENT-HYG 4680 Dental Hygiene Clinical Instruction I Credits: 2-4
Continued development of competency as a clinical instructor under the supervision of the dental hygiene faculty. Requires a half-day in clinic student instructor.

Prerequisites: DENT-HYG 4640.

DENT-HYG 4685 Dental Hygiene Clinical Instruction II Credits: 1-4
A continuation of DENT-HYG 4680. Under the supervision of the dental hygiene faculty, students may continue to develop skills as a dental hygiene clinical instructor.

Prerequisites: DENT-HYG 4680.

Discourse (DISC)

Courses
DISC 100 Discourse I: Reasoning and Values (Speech and Writing) Credits: 3
“Discourse” refers to the language, images, styles, genres, behaviors and other forms of communication used by specific social and professional groups. The techniques of discourse analysis and language awareness taught in this course will enable you to position yourself socially and professionally, helping you understand the discourse conventions, reasoning, and "commonsense" assumptions that create and define academic, political, professional, and other discourse forms and communities. Students will produce, perform, and analyze college-level, oral and written texts; and they will learn how written and oral performances function together in specific discourse communities.

Co-requisites: Anchor I.

DISC 200 Discourse II: Culture and Diversity (Writing and Speech) Credits: 3
Students will produce, perform, and analyze college-level, oral and written texts that are based on sustained academic research. Students will continue to develop their understanding of discourse analysis and language awareness in the context of a range of discursive forms. Students will interpret and synthesize college-level scholarship that addresses how diverse discourse communities define, evaluate, and transform individual, institutional, and cultural identities.

Prerequisites: DISC 100.

Co-requisites: Anchor II.
DISC 300 Discourse III: Civic and Community Engagement (Speech and Writing) Credits: 3
Students will put the knowledge and skills learned in Discourse I and II into practical use by engaging in a service-learning project that is interdisciplinary and intercultural. Students will use strategies of critical discourse analysis and critical language awareness to target the appropriate audience/recipients for their research project, to develop innovative and rhetorically effective texts, and to reflect on their project’s purpose, methods, and consequences.
Prerequisites: DISC 200.
Co-requisites: Anchor III.

DISC H100 Discourse I: Reasoning and Val Credits: 3
“Discourse” refers to the language, images, styles, genres, behaviors and other forms of communication used by specific social and professional groups. The techniques of discourse analysis and language awareness taught in this course will enable you to position yourself socially and professionally, helping you understand the discourse conventions, reasoning, and “commonsense” assumptions that create and define academic, political, professional, and other discourse formations and communities. Students will produce, perform, and analyze college-level, oral and written texts; and they will learn how written and oral performances function together in specific discourse communities.
Prerequisites: DISC 100.
Co-requisites: Anchor I.

DISC H200 Discourse II: Culture and Diversity (Writing and Speech) Credits: 3
Students will produce, perform, and analyze college-level, oral and written texts that are based on sustained academic research. Students will continue to develop their understanding of discourse analysis and language awareness in the context of a range of discursive forms. Students will interpret and synthesize college-level scholarship that addresses how diverse discourse communities define, evaluate, and transform individual, institutional, and cultural identities. This course is associated with the anchor course Culture and Diversity and prepares students for DISC 300.
Prerequisites: DISC 100.
Co-requisites: Anchor II.

DISC H300 Discourse III: Civic and Community Engagement (Speech and Writing) Credits: 3
Students will put the knowledge and skills learned in Discourse I and II into practical use by engaging in a service-learning project that is interdisciplinary and intercultural. Students will use strategies of critical discourse analysis and critical language awareness to target the appropriate audience/recipients for their service project, to develop innovative and rhetorically effective texts, and to reflect on their project’s purpose, methods, and consequences. This course is taught in close connection with the anchor course Civic and Community Engagement.
Prerequisites: DISC 200.
Co-requisites: Anchor III.

Economics (ECON)

Courses
ECON 100 Economics Explained Credits: 3
Everything you need to know about how the economy works and where it’s going. This course simplifies and clarifies the vocabularies and concepts used to describe all the important economic phenomenon in our society today: unemployment, trade deficits, government budget deficits or surpluses, inflation, investments, and customer debt. It describes where we’ve been (economically) and assess the future of the economic system we call capitalism.
ECON 100 - MOTR ECON 100: Introduction to Economics

ECON 150 Introduction To Labor Studies Credits: 3
This interdisciplinary course offered by The Institute for Labor Studies, covers the role of workers and the labor movement in society and the American political and economic system. Students will gain an overview, from a labor viewpoint, of the organization of work and workers, collective bargaining and representation, and labor’s rights, roles, and strategies in a democracy and in the global economy. A particular focus will be the image of the working class and organized labor in the media and among public perception.
ECON 201 Introduction To Economics I Credits: 3
Economics I deals primarily with macroeconomic or national economic concepts, the economics of the determination of recession, inflation, maintenance of full employment and economic growth, with an emphasis upon the economics of modern Keynesian analyses. It further introduces the economics of Marx and Ayres and discusses relevant and current economic issues. ECON 201 and ECON 202 are prerequisites for most other economics courses.
ECON 201 - MOTR ECON 101: Introduction to Macroeconomics
ECON 201P Introduction To Economics I Credits: 3
Economics I deals primarily with macroeconomic or national economic concepts, the economics of the determination of recession, inflation, maintenance of full employment and economic growth, with an emphasis upon the economics of modern Keynesian analyses. It further introduces the economics of Marx and Ayres and discusses relevant and current economic issues. ECON 201 and ECON 202 are prerequisites for most other economics courses.

ECON 202 Introduction To Economics II Credits: 3
Economics II deals primarily with microeconomics, firm analysis, the principles of demand, supply, elasticity, price determination, costs, income distribution, market structures, trade, and other related social, economic issues. ECON 201 and ECON 202 are prerequisites for most other economics courses.

ECON 202P Introduction To Economics II Credits: 3
Economics II deals primarily with microeconomics, firm analysis, the principles of demand, supply, elasticity, price determination, costs, income distribution, market structures, trade, and other related social, economic issues. ECON 201 and ECON 202 are prerequisites for most other economics courses.

ECON 300CM Cluster Course: Mexico, Central America And The Human Condition Credits: 3
Faculty from at least two different departments (one of which must be a department in the Division of Humanities, including History) may determine the topic and syllabus, subject to the approval of the director of Integrated Studies and the program’s advisory committee in addition to the approval of the departments involved. This special topics course will satisfy the interdisciplinary course requirement for the B.A.
Prerequisites: ECON 201, ECON 202.

ECON 300CS Cluster Course Credits: 3
Faculty from at least two different departments (one of which must be a department in the Division of Humanities, including History) may determine the topic and syllabus, subject to the approval of the director of Integrated Studies and the program’s advisory committee in addition to the approval of the departments involved. This special topics course will satisfy the interdisciplinary course requirement for the B.A.
Prerequisites: ECON 201, ECON 202.

ECON 301 Macroeconomic Analysis Credits: 3
This course provides more in-depth analysis of the macroeconomy. It examines the economic system as a whole and the ways in which its functioning is affected by the behavior of the interdependent sectors of which it is composed. It details the major factors affecting national income and the use of sectoral accounts in analyzing economic prospects and policies.
Prerequisites: ECON 201.

ECON 302 Microeconomic Analysis Credits: 3
This course provides in-depth analysis of the microeconomy. It examines the functioning of the individual enterprise and households. It specifically details problems confronting business enterprises operating under different types of market situations. It features analyses of the influence of the prices factors of production on methods of production and the effects that changes in income levels and in relative prices have on sales of different types of goods and services.
Prerequisites: ECON 202.

ECON 303H Special Issues In Economic Credits: 3
Readings and discussions of selected economic topics. Content varies over time as economic conditions change. Designed for outstanding students in Principles of Economics.
Prerequisites: ECON 201, ECON 202.

ECON 308 Challenges Facing The US Economy Credits: 3
This course provides an introduction to challenges facing the US economy, such as growing inequality and poverty in the midst of plenty, persistent unemployment in the central cities, the threat of recession or inflation, the problems and opportunities created by an aging society, implementation of welfare-to-work plans, and other topics of interest to students.
Prerequisites: ECON 201, ECON 202.

ECON 314 Race, Class And Gender: Theory, History, And Policy Credits: 3
Analyzes the ways in which race and gender discrimination result in differences in opportunities and outcomes in society. Begins with a historical overview of the origins of modern racism and patriarchy, and their relation to the rise and development of capitalism. Discursive and nondiscursive factors are investigated. Alternative theoretical approaches to understanding the intersections of race, class, and gender are evaluated. Policy debates on issues related to affirmative action, education, welfare, employment, and others are considered.
Prerequisites: ECON 201, ECON 202.
ECON 331 Money And Banking Credits: 3
A study of the structure, operations and problems of banks and other financial institutions with emphasis on their macroeconomic performance. The importance of banking in the financial system and the influence of Federal Reserve monetary policies are also studied.
Prerequisites: ECON 201, ECON 202.

ECON 331P Money And Banking Credits: 3
A study of the structure, operations and problems of banks and other financial institutions with emphasis on their macroeconomic performance. The importance of banking in the financial system and the influence of Federal Reserve monetary policies are also studied.
Prerequisites: ECON 201, ECON 202.

ECON 336 The Kansas City Economy Credits: 3
This course explores the Kansas City economy in depth from both a micro and macro perspective. The macro approach details how important the Kansas City economy is to the state of Missouri, to the US economy, and in the international arena. The micro approach details the contribution of the many different sectors of the KC area to the overall local economy.
Prerequisites: ECON 201 or ECON 202.

ECON 340 Collective Bargaining Credits: 3
This course involves a study of the economics and process of collective bargaining in the labor sphere, including contract negotiations, contract enforcement, and methods to resolve bargaining disputes. Both theoretical and applied issues in collective bargaining will be addressed. Students will participate in a contract bargaining simulation.

ECON 341 Union Leadership and Administration Credits: 3
This course focuses on the roles and challenges of union leadership in a changing environment. Topics include the union leaders’ role as a representative, organizer and educator as well as administrative responsibilities within the union and the relationship with enterprise management in both adversarial and participatory situations. Options for leadership styles and organizational models will be discussed and explored in both theory and practice. Leaders will develop their skills of motivation, speaking, strategic planning and managing complex campaigns and diverse organizations.

ECON 353 Financial Analysis And The Economy Credits: 3
This course examines techniques of financial evaluation used by individuals, corporate managers, and portfolio analysts. Focus of the course will be on the interaction of the mechanics of analytical methods and economic activity. Topics covered will include individual portfolio building, asset evaluation, and financial market theory.
Prerequisites: ECON 201 and ECON 202.

ECON 395A Economic Issues Credit: 1

ECON 395C The Economics Of Energy Credit: 1

ECON 395D Economic Issues Credit: 1

ECON 402 Labor and the Global Political Economy Credits: 3
This course will examine current issues, trends, and developments which are shaping labor in today’s global economy. Students will analyze the shifting balance of power between labor and capital, the role of government, and evaluate the strategic options for workers and unions operating in a global environment.
Prerequisites: ECON 201 and ECON 202.

ECON 404R American Economic History Since 1865 Credits: 3
The course deals with the emergence of Industrial American since 1865. It covers the rise to dominance of the large modern corporation, the problem of economic and social instabiliy and stability, the rise of trade associations, cartels, and government regulation in an unstable economy, and the evolution of American economic policy and national economic planning.
Prerequisites: ECON 201 and ECON 202.

ECON 404RR American Labor History Credits: 3
This course examines history of work and the working class in the U.S. from 1750 to the present. We will focus on the transformation of the workplace, the rise of the union movement, the nature of cultural and political organizations, workers’ relationships with other social groups, and the role played by gender, race, and ethnicity in uniting or dividing the working class.
Prerequisites: ECON 201 and ECON 202.

Cross Listings: HISTORY 366RR.

ECON 405 European Economic Systems Credits: 3
A general study of the economic systems of Germany, France, Sweden, the United Kingdom, Russia, and other countries: and the European Economic Union. The course will study the economic-business organization, economic and social policies, trade policies, and the on-going political, economic, and business changes within the area, and their relation to other areas of the world in terms of economics, business and trade.
Prerequisites: ECON 201, ECON 202.

ECON 406WI History Of Economic Thought Credits: 3
Analysis of basic concepts of economic thought, their historical sources and significance.
Prerequisites: RooWriter.
ECON 411 Geographic Information Systems (GIS) for Urban Economic Development Credits: 3
An advanced quantitative methods course featuring the application of Geographic Information Systems (GIS) to the problems of urban economic development. Surveys federal, state, and local geospatial and attribute data resources, including Census Bureau TIGER files, and provides training in geodatabase construction and management. Geospatial processing, editing, and address geocoding are also covered. Formal analytical methods (cartographic aesthetics and visualization, spatial analysis, exploratory data analysis, network analysis, crime analysis, etc.) are all applied in the context of the problematics of urban and regional economic development.
Prerequisites: GEOG 203 or UPD 203

ECON 412 International Trade And Development Credits: 3
This course emphasizes the global allocation of resources and distribution of income in the analysis of economic development and international trade. Major topics include various theories of economic development, comparative advantage, terms of trade, tariffs, quotas, economic integration and the use of trade to foster economic development.
Prerequisites: ECON 201, ECON 202.

ECON 416 Law And Economics Credits: 3
This course will examine the use of economic principles in the analysis and application of public and private law. Emphasis will be given to the efficiencies of laws in meeting social objectives, how laws can be modified to become more economically efficient, and the uses of economics in the actual practice of the law. Issues covered will include proofs of liability in antitrust, contracts and employment law using statistical and economic analysis, and the calculation of economic damages in commercial, employment and personal injury/death litigation. Graduate students will be assigned a specific research paper.
Prerequisites: ECON 201, ECON 202, ECON 302.

ECON 420 Environment, Resources And Economic Growth Credits: 3
This course focuses on the theory and policy issues involved in resource recreation and depletion; environmental destruction, preservation and recreation; and the interrelation of these problems of and prospects for economic growth.
Prerequisites: ECON 201, ECON 202.

ECON 421 Mathematical Economics Credits: 3
An introduction to mathematical methods as applied to the questions addressed by economists. The principal methods to be applied are matrix algebra and differential calculus in the context of optimization. Other topics may include integral calculus, differential equations, difference equations, or linear and non-linear programming.
Prerequisites: ECON 201, ECON 202, ECON 301, ECON 302 and MATH 210.

ECON 425 Intermediate Economic Statistics Credits: 3
An introduction to the empirical side of economics. Estimation theory and the properties of commonly used estimators are covered. Some of the more important topics dealt with are: multiple regression, heteroscedasticity and autocorrelation in regression analysis, analysis of variance and the use of qualitative variables in regression analysis. Hands-on work with computer software designed for econometrics is stressed. No experience with computers necessary.
Prerequisites: ECON 201, ECON 202, ECON 301, ECON 302 and STAT 235 (or its equivalent).

ECON 429 Environment, Resources And Economic Growth Credits: 3
This course focuses on the theory and policy issues involved in resource recreation and depletion; environmental destruction, preservation and recreation; and the interrelation of these problems of and prospects for economic growth.
Prerequisites: ECON 201, ECON 202.

ECON 431 Monetary Theory And Policy Credits: 3
A study of the nature and functions of money and the financial system, with emphasis on monetary theory and its application to current banking and financial problems. Recent contributions to monetary theory and current literature.
Prerequisites: ECON 201, ECON 202, ECON 301.

ECON 435 Public Finance Credits: 3
Problems of public and private sector decision making of revenue-expenditure policies and an examination of the actual legal, political and economic policies for revenues and expenditures of federal, state and local governments.
Prerequisites: ECON 201, ECON 202, ECON 302.

ECON 437 State And Local Government Finance Credits: 3
This course investigates the role, problems and relative importance of municipal governments in the United States. Such areas as the demand for public services, tax and expenditure policies, and intergovernmental fiscal relations will be explored in detail. Case studies of state and local governments will be introduced to emphasize the problems and proposed solutions arising in modern municipal governments.
Prerequisites: ECON 201, ECON 202, ECON 302.

ECON 438 Economic Policy Credits: 3
Analysis of the confluence of political and economic behavior, the economics of collective action.
Prerequisites: ECON 201, ECON 202, ECON 301 and ECON 302.
ECON 442 International Finance Credits: 3
This course emphasizes the global activity and balance of payments implications of government taxation, expenditure and monetary policies under various capital market conditions. Major topics include: exchange rates and the balance of payments; national income determination in an open economy; integrated and non-integrated capital markets; economic growth stabilization policies and the quest for global economic stability.
Prerequisites: ECON 201, ECON 202, ECON 301.

ECON 451 Institutional Economic Theory Credits: 3
Analysis of impact of modern philosophy and developments in social sciences on economic theory.
Prerequisites: ECON 201, ECON 202, ECON 301, ECON 302.

ECON 458 Urban Economics Credits: 3
An inquiry into the economics of location decisions and the influence of these on urban growth and on the real estate market; the evaluation of urban transportation and other public services; an examination of economic development of ghetto neighborhoods.
Prerequisites: ECON 202, ECON 302 (or equivalent).

ECON 460 Industrial Organization Credits: 3
Prerequisites: ECON 201, ECON 202, ECON 301, ECON 302.

ECON 475 Economics Institutions and Policies Credits: 3
This course focuses on the economic system analysis of labor market phenomena in the context of historical-institutional development and labor market policies, this course is offered winter semester only.
Prerequisites: ECON 201 and ECON 202.

ECON 486 Labor Economics Credits: 3
An examination of the theories of wage determination, the economic effects of wage determination upon the wage structure, the distribution of national income, employment, and an introduction to collective bargaining.
Prerequisites: ECON 201, ECON 202, ECON 302.

ECON 488 Radical Political Economy Credits: 3
This course will cover the ideas that constitute radical political economy. It will show how radical political economy can be used to examine current economics and social problems and will outline possible economic structures of utopian visions.
Prerequisites: ECON 201, ECON 202.

ECON 490 Readings In Economics Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the professor in any of the following fields: (a) economic theory, (b) history of economic thought, (c) labor economics, (d) urban economics, (e) monetary and fiscal policy and theory, (f) international economics, (g) economic development, (h) comparative economic systems, (i) public finance, (j) public policy toward business, (k) quantitative economics.
Prerequisites: ECON 201, ECON 202.

ECON 496 Practicum in Urban Economic Development Credits: 3
The Practicum in Urban Economic Development provides students with the opportunity to integrate and apply the knowledge and skills developed through previous coursework to real-world problems of urban economic development. Working on collaborative, service-learning projects in partnership with both community and metropolitan-level organizations, students will engage with the process of applied urban economic development in a team-structured context. Student teams will be each be responsible for one term project over the course of the semester. The course will culminate with the public presentation of project outcomes.
Prerequisites: ECON 336, ECON 458.

ECON 497 Internship Credits: 1-6
The course allows the student to participate in cognate, approved internships of a professional nature.
Prerequisites: The completion of 75 credit hours and undergraduate major or graduate student in Economics, ECON 201, ECON 202.

Education (EDUC)

Courses
EDUC 149 Economics In The K-8 Classroom Credits: 3
This course is designed to help students develop an understanding of economic concepts and principles and to raise their level of comfort for infusing these concepts throughout the K-8 curriculum. Special attention will be given to both national and state economic standards.

EDUC 160 Career And Life Planning Credits: 2
Skill development in career planning through processes of self-assessment and self-development and analyzing the structure of the world of work and occupational information, values, clarification and decision making, vocational exploration and preparation for employment.
EDUC 180 Introduction To Education Credits: 2
The course will present an overview of education today for those who have a general interest in education or are considering becoming educators. The curriculum provides students with an introduction to current issues in education while incorporating skills needed for academic success. Students will also have the opportunity to gain experience in a K-12 classroom setting (2 credit hours).

EDUC 189 Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

EDUC 189CD Special Topics Credits: 1-6
EDUC 189CM Special Topics Credits: 1-6
EDUC 289 Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

EDUC 289FD Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

EDUC 289FE Special Topics Credits: 1-6
EDUC 289FL Special Topics Credits: 1-6
EDUC 289IA Special Topics Credits: 1-6
EDUC 289IU Special Topics Credits: 1-6
EDUC 289KT Special Topics Credits: 1-6
EDUC 289MA Special Topics Credits: 1-6
EDUC 289MM Special Topics Credits: 1-6
EDUC 289MT Special Topics Credits: 1-6
EDUC 289PS Special Topics Credits: 1-6
EDUC 289SE Special Topics Credits: 1-6
EDUC 289TE Special Topics Credits: 1-6
EDUC 289UE Special Topics Credits: 1-6
EDUC 289US Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

EDUC 389 Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings.

EDUC 389CA Special Topics Credits: 1-6
EDUC 389CI Special Topics Credits: 1-6
EDUC 389ES Special Topics Credits: 1-6
EDUC 389ES Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

EDUC 389FD Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

EDUC 389FE Special Topics Credits: 1-6
EDUC 389FL Special Topics Credits: 1-6
EDUC 389IA Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

EDUC 389LI Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.
EDUC 389LL Special Topics Credits: 1-6
EDUC 389LM Special Topics Credits: 1-6
EDUC 389LT Special Topics Credits: 1-6
EDUC 389ME Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.
EDUC 389MM Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.
EDUC 389TI Special Topics Credits: 1-6
EDUC 389UE Special Topics Credits: 1-6
An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.
EDUC 389US Special Topics Credits: 1-6
EDUC 402R Algebraic Thinking for Teachers Credits: 3
Designed for middle and secondary school mathematics teacher candidates to [re]evaluate conceptions of learning and teaching algebraic concepts across elementary, middle, and high school levels. Course topics include mathematical habits of mind, defining algebra, building number sense to develop algebraic thinking, generalizing functional relationships, and representing mathematical ideas.
EDUC 414 English Language Study In Elementary And Secondary Schools Credits: 3
Designed as a review of traditional as well as descriptive and historical approaches to grammar, usage and syntax - focusing upon teaching strategies for elementary, junior high, middle school, and senior high English/language arts classrooms.
EDUC 428 Cultural Diversity And American Education Credits: 3
An examination of educational needs and strategies in a culturally diverse society based on a study of several major ethnic and nationality groups in America from historical, anthropological and sociological perspectives. This course may be team-taught.
EDUC 434 Classroom Diagnosis And Correction Of Reading Problems Credits: 3
Procedures for the diagnosis and correction of reading problems which are appropriate for classroom teachers.
Prerequisites: TCH-ED 415.
EDUC 440 Literature For Adolescents Credits: 3
Focus upon literature for adolescents and ethnic literature, specifically, and upon the special reading interests of the adolescent in relation to the methods and materials of reading in grades 7-12, generally. Attention to literature selection standards, censorship, individualized instruction, and reader response.
EDUC 489 Special Topics Credits: 1-6
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in each semester's bulletin.
EDUC 489A Special Topics Credits: 1-6
EDUC 489AR Special Topics Credits: 1-6
EDUC 489BP Special Topics Credits: 1-6
EDUC 489CA Special Topics Credits: 1-6
EDUC 489CI Special Topics Credits: 1-6
EDUC 489LO Special Topics Credits: 1-6
EDUC 489LT Special Topics Credits: 1-6
EDUC 489Q Special Topics Credits: 1-6
EDUC 489QT Special Topics Credits: 1-6
EDUC 489TA Special Topics Credits: 1-6
EDUC 497 Individual Study Credits: 1-6
Guided study of a selected topic in education.

Education Research and Psychology (EDUC-R&P)

Courses
EDUC-R&P 255 Understanding Data Through Sports: Sabermetrics Credits: 3
Non-theoretical approach to data analysis using applications and examples from the world of sports.
Electrical and Computer Engineering (E&C-ENGR)

Courses

E&C-ENGR 130 Engineering Graphics Credits: 3
Introduction to Engineering Graphics with the use of the Computer Aided Design tools AutoCAD and SolidWorks. Introduction to 2D design with AutoCAD and introduction to 3D design with SolidWorks. Also an introduction to electrical circuit diagrams. No previous 2D or 3D CAD experience is necessary to take this class.

E&C-ENGR 216 Engineering Computation Credits: 4
Development, analysis and synthesis of structured computer programs for solving engineering problems in the Python, MATLAB, and C languages. Introduction to algorithms and data structures.
Prerequisites: MATH 110.

E&C-ENGR 217 Engineering Computation Credits: 2
Students learn to develop, analyze and synthesize structured computer programs for solving engineering problems in the Python, MATLAB, and C languages. This course also provides an introduction to algorithms and data structures. This course is available by approval of the degree program committee if transfer credit has been approved for one of the listed programming languages.
Prerequisites: MATH 110.

E&C-ENGR 226 Logic Design Credits: 3
Design of combinational logic circuits, logic minimization techniques, design of sequential logic circuits, state machine design techniques, digital system design.
Co-requisites: E&C-ENGR 227.

E&C-ENGR 227 Logic Design Laboratory Credit: 1
Laboratory for E&C-ENGR 226. Experimental topics related to the design of combinational and sequential logic systems and small digital systems.
Co-requisites: E&C-ENGR 226.

E&C-ENGR 228 Introduction to Computer Design Credits: 3
This course covers computer organizations and fundamental computer design techniques. It also discusses design of computer data unit, control unit, input-output, microprogramming. Memory systems (RAM memory, Cache memory, interrupts, secondary memory) and direct memory access design is also discussed. Verilog HDL design is introduced and applied to small digital systems.
Prerequisites: E&C-ENGR 226, E&C-ENGR 227.
Co-requisites: E&C-ENGR 229.

E&C-ENGR 229 Introduction to Computer Design Laboratory Credit: 1
This laboratory course covers experimental topics related to the design of digital computer systems and arithmetic circuits which students study in the E&C-ENGR 228.
Prerequisites: E&C-ENGR 226, E&C-ENGR 227.
Co-requisites: E&C-ENGR 228.

E&C-ENGR 241 Applied Engineering Analysis I Credits: 3
Prerequisites: Math 220.

E&C-ENGR 250 Engineering Mechanics and Thermodynamics Credits: 3
This course concentrates on practical concepts in mechanics and thermodynamics for EC-ENGR majors, such as the practical use of forces, moments, couples, centroids, and moment of inertia, friction, manipulating systems of rigid bodies in motion and applying conservation of energy to gases, liquids, and solids. Materials will also be addressed.
Prerequisites: MATH 220, PHYSICS 240.

E&C-ENGR 276 Circuit Theory I Credits: 3
Kirchoff's circuit laws, Ohm's Law, nodal and mesh analyses, source transformations, superposition, Thevenin and Norton equivalents, transient analysis of 1st and 2nd order systems. AC circuit analysis, phasors, impedance, sinusoidal steady-state responses, operational amplifiers and PSpice.
Prerequisites: PHYSICS 250 and E&C-ENGR 241.

E&C-ENGR 277 Circuit Theory I Lab Credit: 1
Introduction to the use and limitations of basic instruments used in electrical testing and measurement. Experimental techniques and laboratory safety. Data gathering, interpretation and presentation. Preparation of laboratory reports. Experimental work supporting theoretical concepts developed in E&C-ENGR 276.
Co-requisites: E&C-ENGR 276.
E&C-ENGR 301 Fundamental Topics in Electrical and Computer Engineering Credits: 1-4
Undergraduate topics in electrical or computer engineering.

E&C-ENGR 302 Electromagnetic Waves and Fields Credits: 3
Elements of vector calculus: curl, gradient and divergence differential operations; vector identities; integration of vectors Stokes and Gauss's theorems, laplacian; review of electrostatic and magnetostatic fields; boundary value problems; boundary conditions; time-harmonic fields and phasors; Maxwell’s equations, Poynnting vector; vector and scalar wave equations; electromagnetic wave propagation in free-space, lossy and lossless dielectrics and conductors; polarization; reflections at normal and oblique incidences; transmission line parameters; telegraphers equations; input impedance and VSWR; Smith Chart and impedance matching; transients on transmission lines. Co-requisites: E&C-ENGR 303.
Prerequisites: E&C-ENGR 341R, E&C-ENGR 376, PHYSICS 250.

E&C-ENGR 303 Electromagnetic Waves and Fields Lab Credit: 1
The goal of the lab is to complement and demonstrate the main concepts of transmission line and microwave theory using hands on experiments. The experiments will introduce students to microwave sources, components, and transmission lines. Moreover, the experiments will demonstrate the concepts of wave propagation, attenuation, power splitting, reflection, and standing waves. Moreover, students will design and conduct experiments to characterize unknown loads and antennas. Recommended preparation: MATLAB knowledge/proficiency.
Co-requisites: E&C-ENGR 302.

E&C-ENGR 330 Electronic Circuits Credits: 3
Application of operational amplifiers, semiconductors device physics, elementary analysis and design of analog electronic circuits that utilize diodes, BJT’s, and MOSFET’s in single and multistage amplifiers with passive loads and power amplifiers; DC biasing, small signal analysis and calculation of frequency responses. The use of CAD (Spice) in the analysis and design of electronic circuits.
Prerequisites: E&C-ENGR 276 and E&C-ENGR 334.
Co-requisites: E&C-ENGR 331.

E&C-ENGR 331 Electronic Circuits Laboratory Credit: 1
Laboratory experiments in the application of operational amplifiers, the analysis, design, and testing of single and multistage amplifiers with passive loads, and the measurement of frequency response.
Prerequisites: E&C-ENGR 276, E&C-ENGR 277.
Co-requisites: E&C-ENGR 330.

E&C-ENGR 334 Semiconductors and Devices Credits: 3
Junction theory, semiconductor diodes and models, bipolar transistors and models, field-effect transistors and models, selected electron devices and models.
Prerequisites: E&C-ENGR 341R, PHYSICS 250

E&C-ENGR 341R Applied Engineering Analysis II Credits: 3
Complex numbers; Euler’s formulas, analytic functions, Taylor and Laurent series; Cauchy residue theorem and application to evaluation of integrals; linear algebra, eigenvalue and eigenvectors; Fourier series and transforms.
Prerequisites: E&C-ENGR 241.

E&C-ENGR 358 Introduction to Control Systems Credits: 3
Study of feedback techniques, with applications to control systems. Includes modeling, applications of Bode plot, root locus, state-variable, and Nyquist methods.
Prerequisites: E&C-ENGR 380.

E&C-ENGR 376 Circuit Theory II Credits: 3
Power, transformers, three-phase circuits, two-port networks, the theory and application of Laplace Transforms.
Prerequisites: E&C-ENGR 276.
Co-requisites: E&C-ENGR 377.

E&C-ENGR 377 Circuit Theory II Lab Credit: 1
Continuation of E&C-ENGR 277 introducing the use of additional instruments used in electrical testing and measurements. Statistical data evaluation methods. Experimental work supporting concepts developed in E&C-ENGR 376.
Prerequisites: E&C-ENGR 277.
Co-requisites: E&C-ENGR 376.
E&C-ENGR 380 Signals and Systems Credits: 3
Continuous and discrete-time signals and systems, frequency response, Fourier analysis of discrete and continuous signals and systems and use of z, Fourier, Discrete Fourier, and Fast Fourier Transforms.
**Prerequisites:** E&C-ENGR 341R.

**Co-requisites:** E&C-ENGR 381.

E&C-ENGR 381 Signals and Systems Lab Credit: 1
Computer Laboratory for E&C-ENGR 380. Various signal processing software programs (MATLAB and DSP) are used to investigate properties and applications of continuous and discrete time signals and systems.
**Co-requisites:** E&C-ENGR 380.

E&C-ENGR 400 Problems in Electrical and Computer Engineering Credits: 1-4
Analytic or experimental problems pertaining to electrical or computer engineering.
**Prerequisites:** Departmental consent.

E&C-ENGR 401 Topics In Electrical And Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
**Prerequisites:** Senior standing.

E&C-ENGR 401AN Topics in Electrical Engineering Credits: 1-4
E&C-ENGR 401AR Topics in Electrical Engineering Credits: 1-4
Topics in Electrical Engineering
E&C-ENGR 401AS Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401AV Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401BE Topics in Electrical Engineering Credits: 1-4
Topics in Electrical Engineering
E&C-ENGR 401BI Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401CA Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401CI Topics in Electrical Engineering Credits: 1-4
E&C-ENGR 401DE Special Topics ECE Credits: 1-4
E&C-ENGR 401EC Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401EP Topics in ECE Credits: 1-4
E&C-ENGR 401ES Topics in Electrical Engineering Credits: 1-4
Topics in Electrical Engineering
E&C-ENGR 401FE Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401H Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 401IR Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401KI Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
**Prerequisites:** Senior standing.

E&C-ENGR 401NM Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 401NN Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
**Prerequisites:** Senior standing.

E&C-ENGR 401PE Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
**Prerequisites:** Senior standing.

E&C-ENGR 401PG Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
**Prerequisites:** Senior standing.

E&C-ENGR 401PL Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
**Prerequisites:** Senior standing.
E&C-ENGR 401PQ Topics in Electrical Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
Prerequisites: Senior standing.

E&C-ENGR 401PV Topics in Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 401RD Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
Prerequisites: Senior standing.

E&C-ENGR 401RS Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
Prerequisites: Senior standing.

E&C-ENGR 401SC Topics in Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 401SI Topics in Electrical Engineering Credits: 1-4
Topics in Electrical Engineering
E&C-ENGR 401VL Topics in Electrical Engineering Credits: 1-4
E&C-ENGR 401XX Topics in Electrical and Computer Engineering Credits: 1-4
Topics covering current and new technical developments in electrical or computer engineering.
Prerequisites: Senior standing.

E&C-ENGR 402 Senior Design I Credits: 2
First capstone design course in electrical and computer engineering. Provides and accounts for laboratory, library, research and other work needed for the development of the project. Stresses oral presentations.
Prerequisites: E&C-ENGR 330 and E&C-ENGR 420 or E&C-ENGR 466.

E&C-ENGR 402WI Senior Design I Credits: 2
First capstone design course in electrical and computer engineering. Provides and accounts for laboratory, library, research and other work needed for the development of the project. Stresses oral presentations.
Prerequisites: E&C-ENGR 330, and E&C-ENGR 420 or E&C-ENGR 466, RooWriter.

E&C-ENGR 403 Senior Design II Credit: 1
Second capstone design course in electrical and computer engineering. Project management, professional practice, ethical and engineering economic considerations and development of written and oral presentation skills. Provides laboratory experience in prototyping, fabrication, and troubleshooting of the design project. Stresses written and oral presentation.
Prerequisites: E&C-ENGR 402.

E&C-ENGR 403WI Senior Design II Credits: 3
Second capstone design course in electrical and computer engineering. Project management, professional practice, ethical and engineering economic considerations and development of written and oral presentation skills. Provides laboratory experience in prototyping, fabrication, and troubleshooting of the design project. Stresses written and oral presentation.
Prerequisites: E&C-ENGR 402WI, RooWriter.

E&C-ENGR 412 Principles of RF/Microwave Engineering Credits: 3
General aspects of TE, TM and TEM mode propagation in waveguides; circular waveguides; optical waveguides; wave propagation on dielectric backed conductors; wire antennas; equivalence principle and aperture antennas; antenna impedance and mutual coupling in arrays; array beamforming; scattering matrix representations; impedance matching; resonators; filters, couplers and power-dividers; microstriplines and striplines; r.f. propagation in wireless and radar systems; conformal mapping techniques and applications (optional).
Prerequisites: E&C-ENGR 302, E&C-ENGR 380, E&C-ENGR 381, MATLAB proficiency.

E&C-ENGR 414 Microwave Engineering for Wireless Systems Credits: 3
Microwave networks; s-, z-, y- and abcd matrices; signal flow graphs; circular waveguides; stripline microstrip characteristics; impedance transformers; power dividers and directional couplers; microwave filters; microwave resonators; active microwave circuits.
Prerequisites: E&C-ENGR 302, E&C-ENGR 380, MATLAB proficiency.

E&C-ENGR 415 Microwave Engineering for Wireless Systems Lab Credit: 1
Design performance simulation of microwave filters and active microwave circuits; comparative analysis of impedance transformers; use of CAD tools in microwave circuit design.
Prerequisites: E&C-ENGR 414.
E&C-ENGR 416 Neural and Adaptive Systems Credits: 3
A hands-on introduction to the theory and applications of neurocomputing. Includes classification, function approximation, supervised and unsupervised learning, time series analysis, and adaptive filtering using different feed-forward and recurrent artificial neural networks.
Prerequisites: COMP-SCI 394R, E&C-ENGR 341R.

E&C-ENGR 418 Introduction to Radar Systems Credits: 3
Radar equation; MT, Pulsed Doppler and Tracking Radars; detection of and information from radar signals; radar antennas; transmitters and receivers; radar propagation and clutter.
Prerequisites: E&C-ENGR 302, E&C-ENGR 380, E&C-ENGR 381.

E&C-ENGR 420 Advanced Engineering Computation Credits: 2
Programming and computational analysis principles and techniques for various problems in embedded programming, applied computation, and signal processing.
Co-requisites: E&C-ENGR 428R and E&C-ENGR 429.

E&C-ENGR 424 Computer Design Credits: 3
Design of general purpose computers including arithmetic and control units, input/output, memory systems, microprogramming and introduction to parallel structures and processing.
Prerequisites: E&C-ENGR 226.

E&C-ENGR 426 Microcomputer Architecture and Interfacing Credits: 3
Advanced microprocessor architecture and programming; interfacing and programming of peripherals. Parallel and serial communication, interrupts, direct memory access, coprocessors.
Prerequisites: E&C-ENGR 226.

E&C-ENGR 427 Microcomputer Laboratory Credit: 1
Laboratory for E&C-ENGR 426. Microprocessor hardware and software involving interfacing of peripherals to 8-bit and 16-bit microprocessor. Simple D/A conversion, music composition, and various programmable controllers.
Prerequisites: E&C-ENGR 227.
Co-requisites: E&C-ENGR 426.

E&C-ENGR 428R Embedded Systems Credits: 3
This course examines the hardware/software aspects associated with developing microcontroller-based computer systems. The students learn about the architecture and assembly language for popular microcontrollers and how to take advantage of a variety of input/output options that include binary ports, A/D and D/A converters, communication ports, and interfacing techniques for various applications.
Prerequisites: E&C-ENGR 426, E&C-ENGR 427.
Co-requisites: E&C-ENGR 429.

E&C-ENGR 429 Embedded Systems Laboratory Credit: 1
The laboratory introduces the students to a variety of challenging design projects using microcontroller interfacing techniques to develop real world applications, such as digital thermometer and digital pressure monitoring systems. Students must produce an individual design project.
Prerequisites: E&C-ENGR 426, E&C-ENGR 427.
Co-requisites: E&C-ENGR 428R.

E&C-ENGR 430 Microelectronic Circuits Credits: 3
The analysis and design of feedback amplifiers, oscillators and of microelectronic circuits that employ diodes, MOSFETs and BJTs in current mirrors, amplifiers with active loads, differential amplifiers, operational amplifiers, and CMOS Logic gates. The use of CAD (Spice) in the analysis and design of feedback amplifiers and microelectronic circuits.
Prerequisites: E&C-ENGR 330, E&C-ENGR 331.
Co-requisites: E&C-ENGR 431.

E&C-ENGR 431 Microelectronic Circuits Laboratory Credit: 1
Laboratory experiments in the analysis, design and testing of feedback amplifiers; microelectronic circuits that employ diodes, MOSFETs and BJTs in feedback amplifiers, oscillators, current mirrors, amplifiers with active loads, differential amplifiers, operational amplifiers, and CMOS logic gates.
Prerequisites: E&C-ENGR 330, E&C-ENGR 331.
Co-requisites: E&C-ENGR 430.
E&C-ENGR 433 Analog Integrated Circuit Design Credits: 3
Principles of the design and analysis of analog integrated circuits. Study of MOS device physics and second order effects, device fabrication and layout, noise, single-stage and differential amplifiers, current mirrors, reference circuits, op amps and frequency compensation. Introduction to CAS circuit design and Cadence design tools.
Prerequisites: E&C-ENGR 276.

E&C-ENGR 436 Power Electronics I Credits: 3
Power electronic device characteristics, important circuit and component concepts, phase controlled rectifiers, line communicated inverters and AC phase control. Includes laboratory projects.
Prerequisites: E&C-ENGR 430.

E&C-ENGR 442 Introduction to VLSI Design Credits: 3
The goal of this course is to familiarize students with the design fundamentals and layout of Very Large Scale Integrated (VLSI) Circuits. The primary focus of this course is complementary MOSFET (CMOS) based digital integrated circuits design and analysis. However, the topics regarding transistor, interconnect, and circuit implementation are relevant to digital, analog and mixed-signal integrated circuits. This course is designed to be a comprehensive foundation for advanced micro- and nano-electronics courses. To familiarize the students with the realities of design complexities they will get exposure to commercial CAD tools in a separate lab co-requisite class. Recommended preparation: Basic Electronics.
Co-requisites: E&C-ENGR 443.

E&C-ENGR 443 Introduction to VLSI Design Laboratory Credits: 3
The goal of this course is to teach basic design concepts and implementation issues of digital integrated circuits. Various methods of designing and optimizing very large scale integrated (VLSI) circuits will be introduced in the lab projects. To familiarize students with the realities of integrated circuit design and layout, they will get exposure to industry-standard computer aided design (CAD) and simulation tools for VLSI circuits and systems. The students will be using these CAD tools in the following levels – schematic, layout, parasitic extraction, and circuit simulation.
Co-requisites: E&C-ENGR 442.

E&C-ENGR 454 Robotic Control and Intelligence Credits: 3
Introduces robotics; robot system characteristics; robot motive power systems; geometric structure of robots; sensors and feedback; control applications and algorithms; data acquisition and output actuation functions; robots and Artificial Intelligence; microprocessor applications in robotics.
Prerequisites: E&C-ENGR 226 (or E&C-ENGR 426), E&C-ENGR 358.

E&C-ENGR 455 Instrumentation and Control Credits: 3
The instrumentation and control of industrial processes and systems, introduction to Programmable Logic Controllers, and simulation modeling of various systems.
Prerequisites: E&C-ENGR 358.

E&C-ENGR 457 Fundamentals of Solar Photovoltaic Cells Credits: 3
The science and engineering of solar cell/solar photovoltaic (PV) spans several disciplines namely physics, chemistry, electronic and electrical engineering. Even though solar cell related researches are carried out in those traditional disciplines but it is not widely taught as a comprehensive course. This course highlights the fundamental science and engineering of solar PV devices, solar energy conversion as well as solar cell manufacturing issues. It covers from basic to modern solar PV devices, including typical solar cell materials, basic device physics, ideal and non-ideal models, device parameters and design, and device fabrication.

E&C-ENGR 458 Automatic Control System Design Credits: 3
Techniques for feedback system design analysis: compensator design examples, state variable methods, non-linear systems, and sampled-data control systems.
Prerequisites: E&C-ENGR 380, E&C-ENGR 358.

E&C-ENGR 459 Introduction to Photovoltaic Systems Credits: 3
The course presents an updated background of world energy production and consumption, a summary of the solar spectrum, how to locate the sun, and how to optimize the capture of its energy, as well as the various components that are used in PV systems. Also studied are why certain photovoltaic (PV) designs are used in certain ways, as well as how the design process is implemented. Economic and environmental issues involved in PV design criteria are discussed along with the most recently available technology, design, and installation practices.

E&C-ENGR 460 Introduction to Power Systems Credits: 3
Magnetic circuitry in general and in machinery; DC machine theory, operation, applications, transformer circuits, synchronous machine theory, operation applications, basic principles of energy conversion, introduction to power electronics, and basic principles of power transmission and control.
Prerequisites: E&C-ENGR 276.
E&C-ENGR 461 Electric Power Lab Credits: 3
Application of fundamentals and concepts of power systems to practical power plan and industrial applications. Operational limitations of all components of power system equipment. Single and Three Phase Circuits, Generators/Alternators, Transformers, Motors, and specialty items (Coronal mass Ejection, Ferroresonance, System Protection).
Prerequisites: E&C-ENGR 466.

E&C-ENGR 462 Symmetrical Components Analysis of Power Systems Credits: 3
Short circuit analysis using symmetrical components. Simultaneous faults and open conductors.
Prerequisites: E&C-ENGR 466.

E&C-ENGR 463 Advanced Sustainable Energy Systems Engineering Credits: 3
Sustainable Energy Systems Engineering focuses on understanding the theory and application of emerging energy technologies, including solar, wind, biomass, oceanic, geothermal, hydropower, fuel cell (hydrogen), nuclear, and other more exotic energy sources. A premise of the course is that a sustainable energy technology must both be technically feasible and economically viable. Renewable energy sources will be highlighted with a focus on projections for a sustainable energy future. Graduate students will be assigned an additional project to work.
Prerequisites: E&C-ENGR 466.

E&C-ENGR 465 Application of Engineering Principles to Station Design Credits: 3
Students will learn the application of engineering principles to circuits (transient and steady state responses), traveling waves, power system equipment, Lorentz forces, heat transfer, moments, load modeling, and written and oral communication. These will be applied to any of the following: a sub/switching station or an auxiliary electric system of a coal fired or combined cycle power plant. Requirements are agreed upon by an engineering firm who will sponsor this course by providing guidance.
Prerequisites: E&C-ENGR 466 with at least a B+ grade and Department Consent.

E&C-ENGR 466 Power Systems I Credits: 3
Electric power system fundamentals, rotating machines in general, synchronous, induction and DC machines, methods of power system analysis and design, modeling of power systems components such as transmission lines, transformers and generators, and analysis of steady state operation of power system under balanced conditions.
Prerequisites: E&C-ENGR 376.

E&C-ENGR 467 Power Systems II Credits: 3
Prerequisites: E&C-ENGR 358, E&C-ENGR 466.

E&C-ENGR 468 Electric Power Distribution Systems Credits: 3
Operation and design of utility and industrial distribution systems including distribution system planning; load characteristics; application of distribution transformers; design of subtransmission lines, distribution substations, primary systems, secondary systems; application of capacitors; voltage regulation and reliability.
Prerequisites: E&C-ENGR 466.

E&C-ENGR 470 Reliability of Electric Power Systems Credits: 3
Principles of reliability as applied to Power Systems with an overview of current methods to measure reliability of Power Systems are introduced. Analytical and Monte Carlo models for component state and system state duration, with contingency analysis and linear programming for optimal power flow are also covered. Restoration times and cost assessment after component or system failures due to internal or external problems provide focus to practical operating principles.
Prerequisites: COMP-SCI 394R and E&C-ENGR 466.

E&C-ENGR 472 Power Generation Systems Credits: 3
Multi discipline survey of power generation systems and subsystems, including coal-fired steam, co-generation and combined cycle, and combustion turbines. With a goal of reviewing all the major subsystems, this course exposes the electrical engineer to all the mechanical, thermodynamic, and chemical processes of power generation systems.
Prerequisites: E&C-ENGR 466.

E&C-ENGR 474 Introduction to Communication Systems Credits: 3
Introduction to principles and fundamentals of communication systems. Signal representation and analysis, Fourier transform and applications, probability and random variables, analog and digital modulation techniques.
Prerequisites: COMP-SCI 394R, E&C-ENGR 380.

E&C-ENGR 476 Introduction to Wireless Communication Systems Credits: 3
Principles of wireless communication analysis and design. Digital communication basics, cellular radio, wireless PCS communications, multiple access techniques, channel coding and equalization, and standards of digital cellular/PCS systems.
Prerequisites: E&C-ENGR 474.
E&C-ENGR 477 Introduction to Wireless Networking Credits: 3
Principles of the design and analysis of wireless networks. Study of medium access control, administration routing and adaptation to the complexities of the wireless environment. Investigation of networking issues in the IEEE 802.11 family of standards, IEEE 802.15 (Bluetooth), Long Term Evolution, cellular, satellite, ad hoc, and sensor networks.
Prerequisites: COMP-SCI 394R.

E&C-ENGR 480 Digital Signal Processing Credits: 3
Concepts, analytic tools, design techniques used in computer processing of signals: signal representation, sampling, discrete-time system analysis, recursive/non-recursive filters, design/implementation of digital filters.
Prerequisites: E&C-ENGR 380.

E&C-ENGR 484 Digital Image Processing Credits: 3
Fundamentals of digital image processing hardware and software, including digital image acquisition, display, compression, transforms and segmentation. Recommended preparation: Experience in a high-level programming language.
Prerequisites: E&C-ENGR 380.

E&C-ENGR 486 Pattern Recognition Credits: 3
Pattern recognition techniques of applications such as automatic recognition for speech, visual inspection systems, clinical medicine, automatic photographic recognition systems and advanced automation systems.
Prerequisites: E&C-ENGR 380.

E&C-ENGR 491 Internship Credits: 6
Students may participate in structured internships under the joint supervision of an employer and a faculty member. The student must carry out significant professional responsibilities that also have academic merit. The number of credit hours is based on the quality of the academic experience. Available for credit/no credit only and students must be in good standing with at least 18 credit hours of EC-ENGR courses counting towards the degree. Registration by consent number only; petition forms for E&C-ENGR 491 internships are available in the office of CSEE Division and on the web.
Prerequisites: At least 18 hours of EC-ENGR courses toward the degree.

E&C-ENGR 497 Directed Readings Credits: 1-4
Readings in an area selected by an undergraduate student in consultation with a faculty member. Arrangements must be made prior to registration.

E&C-ENGR 499 Undergraduate Research Credits: 1-3
Completion of a project, including a final written report, under the direction of a faculty member. A prospectus must be accepted prior to registration.

English Language & Literature (ENGLISH)

Courses
ENGLISH 100B Basic Speaking and Listening for Non-Native Speakers Credits: 1-3
The study and practice of speaking and listening for survival-level social functions in English. Frequent exercises focus on the production of isolated words and phrases in areas of need, and on the development of survival level oral/aural skills for beginning ESL students. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 100C Basic Reading and Vocabulary for Non-Native Speakers Credits: 1-3
The study and practice of survival-level reading English vocabulary in context. Frequent exercises focus on basic reading comprehension related to familiar topics and situations, and the introduction of dictionary skills. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 100D Basic Writing for Non-Native Speakers Credits: 1-3
The study and practice of survival level writing skills including spelling, capitalization and some punctuation. Introduction of basic sentence structures and completion of simple standard forms of written English. Frequent exercises focus on survival level writing such as words and basic phrases in the present tense. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 100G Basic Grammar for Non-Native Speakers Credits: 1-3
The study and practice of survival level sentence structures and words. Frequent exercises focus on basic level sentences, questions, directions, and descriptions in the present tense that relate to students' immediate surroundings and some life skills areas. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 100S Special Topics in English as a Second Language Credits: 1-6
A course designed to address the specific needs of an individual student or group of students studying English as a Second Language. In addition to targeting English skills, the course may address topics or skills which are not covered in the standard Academic English curriculum of the Applied Language Institute. This course will accommodate individual students or groups of students studying at the Institute for periods of time other than the standard semester length. This course carries no credit toward graduation in the College of Arts and Sciences.
ENGLISH 100T TOEFL Preparation Credits: 1-3
This course will prepare students to take the TOEFL (Test of English as a Foreign Language), in either the paper-based (PBT) or internet-based (iBT) form, and/or to improve their scores from previous attempts. Exercises focus on developing the skills and strategies necessary for navigating TOEFL questions while continuing to develop the general English language skills that support success on the TOEFL. The course will provide students with a personal awareness of strengths and weaknesses so they may focus their test preparation work in and outside of class. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 101B Academic Speaking and Listening for Non-Native Speakers I Credits: 1-3
The study and practice of speaking and listening for basic social functions in English. Exercises include the practice of basic descriptions and the development of oral/aural skills for beginning ESL students. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 101C Academic Reading and Vocabulary for Non-Native Speakers I Credits: 1-3
The study and practice of reading with basic English vocabulary in context. Exercises focus on reading comprehension, identifying the topics of short readings, and the introduction of basic dictionary skills. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 101D Academic Writing for Non-Native Speakers I Credits: 1-3
The study and practice of basic writing skills including handwriting, spelling, capitalization and punctuation. Frequent short exercises emphasize basic sentence structure, biographical description, and completion of standard forms. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 101G Academic Grammar for Non-Native Speakers I Credits: 1-3
The study and practical application of basic sentence structure and word parts. Frequent exercises emphasize use and understanding of simple sentences, questions, directions, and descriptions in the present and past tenses. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 102B Academic Speaking and Listening for Non-Native Speakers II Credits: 1-3
The study and practice of speaking in environments such as the classroom, work, and simple social occasions. Exercises focus on student's ability to distinguish sounds and to produce them correctly in the context of a sentence and to listen for specific information. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 102C Academic Reading and Vocabulary for Non-Native Speakers II Credits: 1-3
The study and practice of reading narrative and expository texts and standard forms. Exercises focus on the development of vocabulary and introduction of reading techniques such as identification of topics and main ideas, skimming, scanning, prediction, and inference. This course carries no credit toward graduation in the College of Arts and Science.

ENGLISH 102D Academic Writing for Non-Native Speakers II Credits: 1-3
The study and practice of techniques for writing short paragraphs in English. Frequent exercises emphasize various forms of paragraph organization and the improvement of punctuation and mechanical skills in writing. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 102G Academic Grammar for Non-Native Speakers II Credits: 1-3
The study and practical application of basic sentence structures, including future and irregular past tense constructions. Frequent exercises emphasize use and understanding of comparatives, questions, and compound nouns and verbs. This course carried no credit toward graduation in the College of Arts and Sciences.

ENGLISH 103B Academic Speaking and Listening for Non-Native Speakers III Credits: 1-3
The study and practice of listening for and producing speech in the past, present and future tenses. Exercises introduce note-taking techniques and focus on the ability to hear and express abstract ideas. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 103C Academic Reading and Vocabulary for Non-Native Speakers III Credits: 1-3
The study and practice of longer reading passages of various rhetorical styles. Exercises focus on improvement of reading speed and the development of vocabulary and comprehension through complex inferences. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 103D Academic Writing for Non-Native Speakers III Credits: 1-3
The study and practice of writing multi-paragraph academic essays. Frequent exercises emphasize point-of-view, process writing, and a variety of rhetorical styles. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 103G Academic Grammar for Non-Native Speakers III Credits: 1-3
The study and practical application of complex sentence structures, including perfect and perfect progressive tenses. Frequent exercises emphasize use and understanding of passive voice, gerunds and infinitives, articles, conditionals, and modals. The course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 104B Academic Speaking and Listening for Non-Native Speakers IV Credits: 1-3
The study and practice of standard English, particularly in the college classroom. Exercises include training in academic lecture comprehension and note-taking as well as formal (classroom presentation) and informal (conversation) English speaking. This course carries no credit toward graduation in the College of Arts and Sciences.
ENGLISH 104C Advanced Academic English Reading For Non-Native Speakers IV Credits: 1-3
This course focuses on preparing students to deal effectively with sophisticated academic reading materials by guiding them in the development of a conscious and reflective approach toward reading. It emphasizes advanced reading skills of interpretation, inference, critical analysis, evaluation and application. There will be frequent exercises addressing the acquisition and practice of study skills and collaborative academic work.

ENGLISH 104D Academic Writing for Non-Native Speakers IV Credits: 1-3
The study and practice of rhetorical principles in standard English prose. Frequent writing exercises emphasize critical thinking and research skills as well as fluency and accuracy in academic writing. This course carries no credit toward graduation in the College of Arts and Sciences.

ENGLISH 104G Advanced Academic English Grammar For Non-Native Speakers IV Credits: 1-3
This course focuses on the analytical understanding and application of English grammar. Students will be expected to observe usage patterns of the English language in a combination of both normative and prescriptive grammars appropriate for academic English application. There will be frequent exercises emphasizing mastery of complex grammar structures including all verb tenses, dependent clauses, modals, and unreal conditionals, and of the relationship between ideas and the construction of sentences in academic discourse.

ENGLISH 105A Advanced Speaking and Listening Topics for Non-Native Speakers Credits: 1-3
This course focuses on developing high-level fluency in English listening and speaking through critical awareness of social language use. Students will work toward greater speaking and listening fluency and adaptability through the practice of skills involving purpose, audience, speech norms and context.

ENGLISH 105C Advanced Reading and Vocabulary Topics for Non-Native Speakers Credits: 1-3
In this course, advanced ESL readers will develop the core critical reading skills required for success in academics by examining and applying those skills in the context of authentic college-level readings representing a wide variety of genres and modes. Readings will include extensive college textbook passages, newspaper articles, opinion sections, academic essays and interpretive reading of literature.

ENGLISH 105D Advanced Writing Topics for Non-Native Speakers Credits: 1-3
This course engages advanced ESL and EFL writers to develop greater dexterity of expression in composition. In addition to reinforcing core rhetorical skills, grammar and writing mechanics, students will explore new rhetorical styles such as personal responses, autobiographical essays, and writing about literature. Extensive reading complements the writing discussion and practice with pieces including personal and academic essays, narrative, magazine journalism and fiction.

ENGLISH 105G Advanced Grammar Topics for Non-Native Speakers Credits: 1-3
In this course, students will pursue an in-depth comprehension of English grammar, with a strong focus on increasing fluency in the English language through a critical analysis of connotation and pragmatics and their role in language fluency. Contextual readings, film and native conversation passages will complement the grammar discussions and practice, engaging students to move beyond a literal understanding based on syntax and semantics to a more contextual awareness of English form and function.

ENGLISH 110 English I: Introduction To Academic Prose Credits: 3
This course introduces students to college-level reading, writing, and discourse analysis: it engages students in the analysis and creation of texts that reveal multiple perspectives about specific rhetorical situations and cultural issues. In addition to learning how to revise by analyzing their own writing, students will learn to edit their own work and use proper academic documentation.

ENGLISH 119 Myth and Literature Credits: 3
A study of classical myth including readings from Homer to Ovid, analysis of selected myths in later literature, art, and music, and a study of contemporary definitions and approaches to myth.

ENGLISH 120 Literary Monstrosities Credits: 3
This course explores representations of monsters in literature. Students are introduced to different ways of thinking about monstrosities from a range of cultural and historical perspectives, as well as through a variety of materials in order to approach this question from an interdisciplinary perspective.

ENGLISH 123 True Lives: Autobiographical Arts and Acts Credits: 3
This course explores life writing and other autobiographical practices. Students will read and analyze a variety of life writing forms and think critically about life writing in various cultural, historical, and social contexts. They will also examine autobiography as a form of self-expression, as an articulation of personal and social values, as a public art, and as a way to study human experience in different contexts. Genres may include memoir, autobiography, diaries, etc., at the discretion of the instructor.

ENGLISH 124 Writing About Literature Credits: 3
This course is designed to be taken either prior to or concurrent with a student's first literature course. It introduces students to literary criticism in its broadest, most generic sense, as a stylized response to reading. Students in the course will be introduced to different approaches to writing about literature, to methods of generating ideas, and focusing and developing a topic.

Prerequisites: ENGLISH 110.
ENGLISH 126 Popular Literature Credits: 3
This course is designed to help students develop a fuller understanding of the human condition by exploring a range of accessible, bestselling fiction and non-fiction from a variety of periods and places, historic and contemporary. The course may include popular stories, songs and ballads, the scripts of blockbuster plays and films, best-selling novels, and widely distributed nonfictional prose.

ENGLISH 130 Introduction to Human Language Credits: 3
This course examines the biological and cultural properties of human language and it provides a foundation for understanding the role language plays in personal lives, in social institutions, and in the literary arts.

ENGLISH 141 Women and Literary Culture/The Heroine in Literature Credits: 3
This course explores the role of the heroine in literature. Students will examine how the heroine is crafted by a variety of writers and think critically about the role of the heroine in various cultural, historical, and social contexts. Genres may include science fiction/fantasy, mystery, romance, etc. at the discretion of the instructor.

ENGLISH 200 Introduction To Undergraduate Study In English Credits: 3
An investigation of reading, writing, and research practices associated with studies in English. Students will learn about multiple forms, genres, and critical approaches, as well as encounter texts from various historical periods and places. Required of all English majors before enrolling in 400-level ENGLISH courses.

ENGLISH 203 Introduction to Journalism Credits: 3
Introduction to the styles and techniques of reporting and writing basic news through assignments in straight news, features and in-depth stories. Exposure to the history and principles of American journalism. Practical application in writing news and news feature articles.

ENGLISH 207 World Literature in English Credits: 3
This course helps students develop a fuller understanding of the human condition by exploring accessible literary texts in English by non Euro-American writers. The course provides historical, economic and political contexts and is designed for students who enjoy learning about global cultures by reading and discussing a diverse range of bestselling literature.

ENGLISH 213 Introduction To Drama Credits: 2-3
Beginning with an intensive study of a few plays analyzed to elicit general principles, the course moves on to consider several representative examples of each of the major periods and types of Western drama, from the Greeks to the present.

ENGLISH 214 Introduction To Fiction Credits: 3
Students will be introduced to the study of fiction as a literary art form. Students will continue to develop their understanding of fiction-writing in preparation for more advanced courses in literature and creative writing. Coursework will focus on close reading of short and long forms of fiction selected from a range of literary periods and world literature. Students are expected to interpret and analyze various forms of fiction and write critically about the role of fiction as a form of cultural discourse.

ENGLISH 215 Introduction To Poetry Credits: 3
An introduction to the study of poetry for students desiring a basic course either to develop a greater appreciation of poetry or to prepare for more advanced courses in literature or creative writing. Class discussions will focus on close readings of poems and analysis of poetic techniques. Writing assignments will complement reading and class discussion and will enable students to develop their own critical and creative skills.

ENGLISH 216 The Craft of Creative Writing Credits: 3
This course introduces students to the key techniques that writers of imaginative literature use. Students will develop skills at writing and reading in multiple genres.

Prerequisites: DISC 100.
ENGLISH 225 English II: Intermediate Academic Prose Credits: 3
This course extends the work of ENGLISH 110 with an additional emphasis on research. Each section of ENGLISH 225 uses a combination of book-length and shorter texts on focus on specific historical and/or cultural issues. As they learn to participate in scholarly conversations, students will find and evaluate library and internet sources. As with ENGLISH 110, this course emphasizes revision, editing, and proper academic documentation. ENGLISH 225 or equivalent is a prerequisite for all 300 and 400 level ENGLISH courses.
**Prerequisites:** ENGLISH 110 and sophomore standing.

ENGLISH 225 - MOTR ENGL 200: Composition II

ENGLISH 241 Women And Literary Culture: Introduction Credits: 3
The course offers an introduction to women as producers and consumers of literature. Students will become acquainted with women writers, explore women's reading practices, and interrogate the issues that have surrounded women's participation in cultural arenas.

ENGLISH 242 Women Writing/Women Reading Credits: 3
This course investigates women as producers and consumers of literature. Students will become acquainted with diverse women writers, explore women's reading practices, and interrogate the cultural, historical, and social contexts that influence women's writing and reading.
**Prerequisites:** Anchor I and DISC 100.

ENGLISH 242 - MOTR LITR 106: Women's Literature

ENGLISH 250 Introduction to Language Acquisition and Diversity Credits: 3
Investigation of the basic principles of first and second language acquisition. Topics addressed include language competency, socio-cultural factors in language, dialects, acquisitional principles, and language diversity. Students will take part in monitored classroom observations in public schools, and will critically analyze how the topics addressed in class apply to real life and to teaching situations.

ENGLISH 270 Writing Tutor Training Seminar Credits: 3
This course covers the basics of serving as a tutor for writers. Students acquire hands-on experience in consulting with writers at all stages of the writing process, including invention work, drafting, revising, documenting, and editing. Students will also become conversant in theories of peer tutoring and research on Writing Centers.
**Prerequisites:** ENGLISH 110.

ENGLISH 273 Science Fiction Credits: 3
This course focuses on a range of science fiction texts from a variety of periods and traditions. Students will examine the relationship between different types of science fiction from various periods and the related social, economic, and political contexts.
**Prerequisites:** DISC 100.

ENGLISH 278 Asian American Literature Credits: 3
This course examines literary and cultural texts produced by Asian Americans from the nineteenth century to the present. Texts will be drawn from a variety of genres and from several Asian American groups in order to examine how Asian American literature engages, challenges, revises, and reinvents American literary traditions. The course will identify and explore specific cultural and political issues that have shaped the writings, including trans-nationalism, immigration, racial identity, group identity, and community. Authors may include Carlos Bulosan, Maxine Hong Kingston, John Okada, Bienvenido Santos, and Hisaye Yamamoto.
**Prerequisites:** DISC 100.

**Co-requisites:** DISC 200.

ENGLISH 278 - MOTR LITR 105: Multicultural Literature

ENGLISH 300CB Women in the Ancient World Credits: 3
This course focuses on the history, representation, literature, social lives, and political roles of women in ancient civilization including Egypt, Mesopotamia, the Biblical World, Greece, and Rome. It integrates methodologies from history, art history and archaeology, literary studies, and women's studies.
**Prerequisites:** ENGLISH 225 or DISC 200.
ENGLISH 300CD American Social Film: Silver Screen & American Dream Credits: 3
This course will combine American social history and film history in the sound era. Using Hollywood entertainment films, the course will look at Hollywood as an indicator of social, political and economic conditions in the United States since the 1930s. The main topics are representations of the American dream and nightmare, poverty and affluence, success and failure. This course is offered as a cluster with HISTORY 400CP.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 300CE Radical Changes Since 1945 Credits: 3
This course will focus on modernism, post-modernism and expressionism in the visual arts and literature since World War II. Common lectures will address intellectual movements such as existentialism and formalism—and cultural development—such as the increased impact of technology and mass media—in contemporary society. By focusing on these movements, the cluster course hopes to provide an integrated view of the literature and visual arts of the period and to draw upon analogous developments in contemporary architecture, music, philosophy and film.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 300CN Terrorism, Civil War And Trauma Credits: 3
This interdisciplinary course examines the modern experience of terrorism and civil war in the light of art, film, history, literature, and philosophy. It explores a number of traumatic events, historic and contemporary, challenging us to think about such contemporary issues as violence and identity formation, civil rights and state-sponsored terrorism, pacifism and patriotism, resistance and collaboration, fundamentalism and fascism, neo-colonialism and anti-imperialism.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 300CW Critical Issues in Women's & Gender Studies Credits: 3
This class is an interdisciplinary upper-level course that will examine critical issues in women's and gender studies by focusing on the intersections of gender, race, class, sexuality, and social context. Through their study of these intersections, students will be more sensitive to the impact of social structures on gender and the experiences of women and men.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 300CX Empire Credits: 3
This is an interdisciplinary, team-taught course designed to teach students ways to think about the complexities of human cultures, past and present, helping them examine how imperialism continues to shape contemporary understandings of personal, institutional, and cultural identities (both of selves and others). The course engages students in the analysis of global cultures with a focus on the economic, environmental, political and social consequences of specific imperial regimes and the ongoing impact of these regimes on particular groups that continue to live with the legacies of empire.
Prerequisites: ENGLISH 225 OR DISC 200.

ENGLISH 300CY Ancient World in Cinema Credits: 3
This course will explore the tradition of depicting the ancient Mediterranean world in film from the early silent era to the present. Topics to be covered include the ways that filmmakers respond to literary and historical sources from the ancient world, interact with the artistic tradition of films about the ancient world, the relation of these films to other works by the same creative personnel (directors, actors, writers, producers, etc.), and the political and cultural contexts in which the films were released.

ENGLISH 300F SS: Academic English/International Grad Teaching Assistants Credits: 3
The study and practice of standard spoken English combined with the study and practice of classroom teaching techniques. Exercises focusing on improvement of pronunciation, and formal (classroom presentation) and informal (conversation) English speaking are combined with techniques for lecture organization, strategies for clear content presentation, and with analysis of the American post-secondary educational culture. This course is designed for prospective International Graduate Teaching Assistants who need to improve their English communication skills and obtain an understanding of American academic culture.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 301WI Writing And The Academy Credits: 3
This course examines social and ethical issues raised by academic reading and writing. While some attention is paid to the formal aspects of academic prose within specific disciplines, the main emphasis of the course is on the cultural consequences of the different ways that academic knowledge is created and taught. In addition to studying the language and structure of academic reading and writing, the course explores the various rhetorics of the academy in terms of a broad range of subjects including economics, gender, education, history, and myth. This course satisfies the junior-level writing requirement and counts towards the writing minor.
Prerequisites: ENGLISH 110, ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 304WI Workplace Writing Credits: 3
This writing intensive course focuses on the rhetorical principles of workplace communication, providing students with opportunities to analyze complex rhetorical situations, to study various workplace genres, and to compose texts that meet the needs of diverse stakeholders.
Prerequisites: ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 305WI Theory And Practice Of Composition Credits: 3
A course in expository writing that will include reading on composition theory and the nature of literacy. Frequent short essays and a long paper.
Prerequisites: ENGLISH 110, ENGLISH 225 or DISC 200, RooWriter.
ENGLISH 306WI Advanced Composition Credits: 3
Further study of writing for those who wish to continue the study beyond the two semesters of composition. Emphasis will be placed on translating critical thinking into effective writing. (NOTE: Students may not receive credit for more than one of the following: ENGLISH 305, ENGLISH 306, ENGLISH 403). Required of business and public administration majors.
Prerequisites: ENGLISH 110, ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 307WI Language, Literacy, Power Credits: 3
This course uses discourse analysis to investigate language and literacy. Students will explore how the discourses of institutional and cultural identities act as instruments of power and legitimacy.
Prerequisites: ENGLISH 110, ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 308 Rhetorics of New Media Credits: 3
This course will focus on the rhetorical study of new media texts (such as hypertext, networked multimedia, multimedia art and performance, virtual spaces, and so on) and theories of new media. The course will consider the rhetorical possibilities and constraints of new media and critically examine their impact on democratic discourse and literacy in the public sphere. Specialized knowledge of multimedia equipment and software is neither expected nor required.
Prerequisites: ENGLISH 110, ENGLISH 225 or DISC 200.

ENGLISH 309WI Rhetorics of Public Memory Credits: 3
This course explores how museums and other cultural institutions function as rhetorical agents in creating and preserving public memory. Students will explore how processes of collection, arrangement, and visual display operate as modes of persuasion and make arguments about civic identities and community values.
Prerequisites: ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 310 Introduction To Linguistics/Language Science Credits: 3
This course is a comprehensive introduction to the theory, methodology, and applications of the science of language. It examines properties of human language, covers all branches of language science, and provides a foundation for a critical understanding of language issues. Required for ENGLISH 470; recommended for ENGLISH 320 and ENGLISH 330.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 311 American Literature I Credits: 3
A survey of American literature and culture from its beginnings to 1865. This course will cover a range of authors, several genres, and culture forms, which may include fiction, poetry, drama, autobiography, oral, contact and/or slave narratives, folklore, and songs.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 312 Creative Writing I Fiction Credits: 3
A course centered on the short story. Emphasis is placed on three areas: general principles governing the writing of fiction; practice in short fiction (primarily the short story, but including the novella); criticism; and technical skills (including editing and rewriting).
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 313WI Reporting Credits: 3
A seminar of practical application in advanced reporting. Assignments to cover news events and to pursue in-depth news reports on the campus and off.
Prerequisites: COMM-ST 203 or ENGLISH 203; RooWriter.

ENGLISH 315 Creative Writing Poetry Credits: 3
Writing and rewriting poems, with discussion of techniques needed to produce desired effects. Analysis and evaluation of student work. Examination of technical means utilized in selected poems by accomplished poets.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 316WI Literary Nonfiction Credits: 3
Literary Nonfiction is a writing intensive course in the reading and writing of nonfiction prose as a literary art. We'll survey the historical development of literary nonfiction (especially the essay), sample contemporary authors of the genre, write critical commentary on works we read, and compose personal essays of our own. The course is not exclusively a literary seminar nor a creative writing workshop, but seeks to mix and make connections between these modes, in the tradition of the essay itself.
Prerequisites: ENGLISH 225 or DISC 200, and RooWriter.
ENGLISH 317 British Literature I Credits: 3
A survey of British Literature and culture from its beginnings to the 18th century, including works by Chaucer and Milton.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 317 - MOTR LITR 102: British Literature

ENGLISH 318 Bible As Literature Credits: 3
A critical study of the major portions of the Old and New Testaments and the Apocrypha, with special attention to the development of literature from oral tradition, the literary genres, themes and archetypes represented in the collection, and the diction and style which have influenced later literature. Consideration also of the relation of Biblical literature to the historical, religious, and cultural milieu of the ancient Near East.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 320 Structure Of English Credits: 3
Not a remedial grammar course. Methods of linguistic inquiry and grammatical description. Study of traditional and modern schools of syntax, especially transformational grammar. Practice describing the structure of sentences. Application to the teaching of grammar in high schools.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 321 American Literature II Credits: 3
A survey of American literature and culture from 1865 to the present. This course will cover a range of authors, several genres, and culture forms, which may include fiction, poetry, drama, autobiography, essay, lyrics, and film.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 321 - MOTR LITR 101: American Literature

ENGLISH 323 Shakespeare Credits: 3
An intensive critical study of William Shakespeare's writings in various contexts (historical, social, political, literary, contemporary, for example). Readings will encompass at least eight plays and will include at least one comedy, history, tragedy, and romance. Required of all English majors.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 325 Arthurian Legends Credits: 3
Focusing on writers such as Marie de France, Chretien de Troyes, Sir Thomas Malory, Alfred, Lord Tennyson, Sara Teasdale, Bernard Malamud, and Marion Zimmer Bradley, this course examines the legend of King Arthur and his Round Table as a recurring myth, repeatedly manifested in time through literature, art, history, music, and film.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 326 Modern And Contemporary Irish Literature Credits: 3
This course examines a range of texts written by Irish-born writers from the end of the nineteenth century on. While it is likely the course will include texts by the most famous Irish writers, such as Yeats, Joyce, Beckett, O'Brien, Heaney, and Friel, course materials will vary from semester to semester and may focus on a specific genre, historical period, or area of interest.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 326 Modern And Contemporary Irish Literature

ENGLISH 327 British Literature II Credits: 3
A survey of British Literature and culture from the late 18th century to the present. This course will cover a range of authors and genres, including at least one novel.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 327 - MOTR LITR 102: British Literature

ENGLISH 330 History Of The English Language Credits: 3
The study of English beginning with the Indo-European language family up to and including varieties of English spoken around the world today. Both outer history and the inner history of phonology, morphology, syntax, and lexicon will be addressed.
Prerequisites: ENGLISH 225 or DISC 200.
ENGLISH 331 African American Literature I Credits: 3
This course provides a survey of African American literature from its beginnings to the Harlem Renaissance of the 1920's and 1930's. Areas of interest will include abolitionist literature (especially Slave Narratives), turn-of-the-century literature and the Harlem Renaissance. This course will examine any or all of the following literary forms: fiction, poetry, drama, autobiography and essay. It will view African American literature in its historical and cultural contexts.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 332WI African American Novel Credits: 3
This course will examine the African American Novel in the 19th and 20th centuries. The novels will be examined in their historical and cultural contexts.
Prerequisites: ENGLISH 225 (or equivalent) or DISC 200, RooWriter.

ENGLISH 333 African American Literature II Credits: 3
A survey of African American literature from the end of the Harlem Renaissance to the present, covering a range of authors, texts, and contexts.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 336 Contemporary American Literature Credits: 3
This course focuses on contemporary American literature, concentrating on literary and cultural change. Topics, genres, and authors discussed will vary each semester.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 337 Introduction to American Literary and Cultural Studies Credits: 3
This course focuses on American literary and cultural production in an interdisciplinary manner. It explores how social, political, and economic conditions interact with the fields of art, film, history, and literature from colonial times to the present.

ENGLISH 339 Introduction to Screenwriting Credits: 3
An introduction to the form and language of the motion picture screenplays. Students create a blueprint for a movie and examine visual storytelling in-depth, including basic dramatic structure, scene and sequence construction and dialogue. Students will master the industry screenplay format, adapt a short story for the screen, and learn to receive feedback in small groups.
Prerequisites: DISC 200 or ENGLISH 225.

ENGLISH 340AWI Classical Literature in Translation Credits: 3
This course will focus on representative authors and works from the Greek and Roman Classical periods, such as Homer, Sophocles, Euripides, Aeschylus, Aristophanes, Plato, the Greek Lyrics, Virgil, Horace, Juvenal, Ovid and Plautus.
Prerequisites: RooWriter.

ENGLISH 342WI Women And Rhetoric Credits: 3
A study of the position of women within the traditions of western rhetoric. Students will examine the rhetorical practices of women as they pursue both public and private goals. Christine de Pizan, Sor Juana Ines de la Cruz, Hannah More, Maria Stewart, Frances Willard, Ida Wells-Barnett, Meridel Le Sueur, and Gloria Anzaldua are among the female rhetorians who may be studied in this course.
Prerequisites: ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 344WI Women & Literary Culture: Genre Focus Credits: 3
A study of women writers that focuses on genre, i.e., texts that share a common set of conventions. The course will explore the conventions associated with a particular genre in various historical periods and consider the ways in which gender and genre intersect in shaping texts and their interpretation.
Prerequisites: ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 345WI Women And Literary Culture: Historical Focus Credits: 3
A study of women's literary culture in a specific historical period either as broadly defined as Medieval or Renaissance or as narrowly defined as a decade or movement (e.g., 1960's, abolitionist movement). This course includes women writers across multiple boundaries (e.g., national, generic, racial, sexual, socio-economic). Content will change depending on the instructor.
Prerequisites: ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 350 The 18th Century Novel Credits: 3
A detailed examination of the development of the novel in the 18th century. The course emphasizes the evolution of the novel from such predecessors as rogue literature, the picaresque story and the romance, due to changing social realities. The novelists studied may include Austen, Behn, Fielding, Godwin, Haywood, Richardson, Smollett, and Sterne.
Prerequisites: ENGLISH 225 or DISC 200.
ENGLISH 351 Special Readings Credits: 1-3
Readings in a period, genre or theme to be selected by the instructor with attention to the needs of students who are interested in literary topics not covered in regular offerings. Proposals for a course in such readings require the approval of the department.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 351A Special Readings: Detective Fiction Credits: 3
This course will focus on a specific period, sub-genre, or theme related to Detective fiction.
Prerequisites: Anchor II, DISC 200.

ENGLISH 355 The Novel Before 1900 Credits: 3
Intensive attention to novels in English written before 1900, which may include comparative or analytical studies of genre; critical reception of novels; serialization, gender issues; authors and editors; and valuation.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 356 Studies in Poetry Credits: 3
An intensive study of poetry through the examination of a specific topic or the works of particular poets, for instance: Love, Seduction, and Betrayal; Form and Change; Death, Grief, and Consolation; Whitman, Dickinson, and the Soul; Sacred Poetry; Poetry and Metaphysics; The Long Poem; The Comic Poem; Sonnet, Sonnet Sequence and the Lyric; The Voyage; Nature, Self, and the Romantic Poet.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 360 The Modern Novel Credits: 3
This course focuses on selected novelists between 1900 and 1945 and is organized around particular literary themes, sub-genres, or contemporary issues.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 365 Contemporary Novel Credits: 3
This course focuses on selected novelists since 1945 and is organized around particular literary themes, sub-genres, or contemporary issues.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 365WI Contemporary Novel Credits: 3
This course focuses on selected novelists since 1945 and is organized around particular literary themes, sub-genres, or contemporary issues.
Prerequisites: ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 367 Introduction to Latinx Literature Credits: 3
An introduction to the literary production by US Latinx, the course introduces students to writings by authors from various Latinidades—such as Chicana/Chicano, Puerto Rican, Chilean American, Cuban American, Dominican American, and Mexican American—in multiple genres, including poetry, fiction, drama, personal essay, and film.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 376 Concepts of the Hero in Ancient Literature and World Cinema Credits: 3
This course explores how concepts of heroism are related to the principles of values and civic duty in a wide range of ancient world cultures and contemporary world cinemas. Students will also demonstrate an understanding of how these values impact individual heroes and their interactions with others in their society.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 378 Asian American Literature Credits: 3
This course examines literary and cultural texts produced by Asian Americans from the nineteenth century to the present. Texts will be drawn from a variety of genres and from several Asian American groups in order to examine how Asian American literature engages, challenges, revises, and reinvents American literary traditions. The course will identify and explore specific cultural and political issues that have shaped the writings, including transnationalism, immigration, racial identity, group identity, and community. Authors may include Carlos Bulosan, Maxine Hong Kingston, John Okada, Bienvenido Santos, and Hisaye Yamamoto.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 404 Old English Credits: 3
This course is a study of Old English, its grammar, its poetic style, and its literature, both poetry and prose.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 405 Magazine Editing Credits: 3
A course combining academic study of editorial management, publishing operations and language skills, with "hands on" experience in article evaluation, editing, magazine production, and legal matters such as copyright and libel. Class work concentrates on authentic and effective language use, with attention given to copy editing, grammar, typography, printing processes, financing and distribution for commercial and small-press publications.
Prerequisites: ENGLISH 225 or DISC 200.
ENGLISH 408 Harlem Renaissance Credits: 3
This course examines the period from 1920 to 1940, known as the Harlem Renaissance, a time of unprecedented literary and cultural creativity by Black artists. This course explores a variety of cultural productions, not only traditional forms of literature such as novels, short stories, plays and poetry, but also nonliterary objects of study such as painting, sculpture, and music.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 410 Black Women Writers Credits: 3
This course explores the writings of African American Women Writers. The course examines how these writers have interacted with and often revised stereotypical representations of African American womanhood typically found within canonical and African American male literatures. The course will examine literature (which might include fiction, poetry, autobiography, and drama) of the nineteenth and twentieth centuries; the majority of the works will be by modern and contemporary authors such as Nella Larsen, Zora Neale Hurston, Toni Morrison, and Terry McMillan. By placing the works in this sort of cultural and historical context, it will be possible to examine the unique tradition of African American women’s writing as well as individual texts.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 412 Chaucer Credits: 3
Readings from Chaucer's most important works, especially "The Canterbury Tales" and "Troilus and Criseyde" with emphasis on them as types of medieval genres and on the Middle English language.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 317.

ENGLISH 413 Renaissance Literature I Credits: 3
English literature from the time of Wyatt and Surrey to the beginning of the 17th century, including the works of Spenser, Marlowe, Sidney, Shakespeare and others.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 317.

ENGLISH 414 Milton Credits: 3
A study of Milton's prose and poetry, with special attention to "Paradise Lost".
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 317.

ENGLISH 415 Restoration And Early 18th-Century British Literature Credits: 3
British literature from the late 17th century to the mid 18th century. Selected writers may include Addison and Steele, Behn, Congreve, Defoe, Dryden, Finch, Milton, Pope, Rochester, Swift, and Wortley Montagu.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 317.

ENGLISH 416 The Romantic Period Credits: 3
An extensive study of selected writers (such as Austen, Barbauld, Byron, Coleridge, Hazlitt, Hemans, Keats, Gilpin, the Shelleys, Wollstonecraft, and Wordsworth) organized around literary themes and/or cultural issues important to the Romantic period.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 327.

ENGLISH 417 Modern Poetry Credits: 3
Study of works by modernist poets such as Hopkins, Yeats, Frost, Stevens, Williams, Moore, Pound, H.D., Eliot, Millay, Hughes.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 327.

ENGLISH 418 19th-Century American Literature Credits: 3
An intensive study of either selected major American writers in the 19th century or of 19th -century literary movements.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 311.

ENGLISH 422 Medieval Literature Credits: 3
Western religious and secular verse and prose to the 15th century. Late Middle English works are read in the original; all other selections in translation.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 317.

ENGLISH 423 Renaissance Literature II Credits: 3
English literature from 1600 to the beginning of the Restoration, including the works of Donne, Jonson, Milton and other contemporaries.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 317.

ENGLISH 425 18th-Century British Literature II Credits: 3
British literature in its critical and historical context from 1750 to 1798. The writers studied may include Blake, Burney, Collins, Johnson, and Gray.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 317.

ENGLISH 426 The Victorian Period Credits: 3
An intensive study of selected writers (such as Arnold, Braddon, the Brontes, the Brownings, Dickens, Darwin, Eliot, Gaskell, Hardy, Ruskin, and the Rossettis) organized around literary themes and/or cultural issues important to the Victorian period.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 327.
ENGLISH 427 Contemporary Poetry Credits: 3
Study of works by contemporary poets (post World War II), such as Auden, Bishop, Hayden, Berryman, Rukeyser, Larkin, Rich, Plath, Heaney, Boland, Komunyakaa.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 428 20th-Century American Literature Credits: 3
An intensive study of either selected major American writers in the 20th century or of 20th-century literary movements.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 321.

ENGLISH 429B Advanced Screenwriting Credits: 3
This course provides students with advanced theory in narrative screenwriting, training in industry standard script analysis (called "coverage") and story editing. Students will be required to draft, revise and workshop a short film screenplay or will focus on a feature screenplay, delivering a draft and revision of the first act and a detailed outline for the rest of the script. Students will workshop feature screenplays in small groups, emphasizing the art of constructive story editing.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 339 or COMM-ST 354.

ENGLISH 431 18th-Century British Literature Credits: 3
British literature from the mid to late 18th century. Selected writers may include Blake, Burney, Collins, Equiano, Fielding, Gray, Johnson, Sheridan, and Wollstonecraft.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 432WI Advanced Creative Writing Prose Credits: 3
A course for advanced students of fiction writing. Open to students who have taken English 312 or its equivalent. The class will proceed through analysis of models, discussion of general principles, critique of student work. Students will simultaneously be encouraged to experiment and to refine the form and subjects best suited to their talents. Emphasis will remain on the short story, though there may be units in other forms--novella, film script, the non-fiction essay.
Prerequisites: ENGLISH 225 or DISC 200, RooWriter.

ENGLISH 433 Histories Of Writing, Reading, And Publishing Credits: 3
A study of selected topics concerning the material practices of writing, reading, and publishing within specific cultural and historical contexts. Issues examined may include authorship, education, information technologies, libraries, literacy, periodicals, popular literature, publishers, and communities of readers.
Prerequisites: ENGLISH 225 or DISC 200, one appropriate introductory course at the 300 level.

ENGLISH 434 Postcolonial Literature Credits: 3
An exploration of postcolonialism through the study of literary and theoretical texts created by or representing peoples whose historical experience has been decisively shaped by the experience or legacies of colonialism. Texts will be drawn from a variety of genres and from several countries. The course will consider several definitions of postcolonialism and related terms such as cosmopolitanism, hybridity, diaspora, and nationalism.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 435WI Advanced Creative Writing Poetry Credits: 3
An advanced poetry workshop that includes intensive reading of contemporary poetry and aims at each student creating a portfolio of publishable poems. The focus of the course will vary to address a variety of topics such as metaphor and closure; imitation and the line; form and voice. May be repeated once for credit.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 315, RooWriter.

ENGLISH 436WI Poetic Forms Credits: 3
An advanced creative writing course that focuses on intensive study of and practice in metrics and traditional and nonce forms. May be repeated once for credit.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 315, RooWriter.

ENGLISH 437WI Prose Forms Credits: 3
The making of a work of prose requires expertise with the structure of the chosen form, and an understanding of the relationship of form to content. This class teaches the techniques for planning and drafting major prose forms which could include the very-short story, the story, novella, novel, linked-story collection, episodic novel, essay novel, the play, the creative nonfiction book, and others. Students will learn how to create particular prose forms and how to use content as a guide to inventing new forms. We will examine some of the best examples of both traditional and newly invented forms by writers such as Anton Chekhov, Katherine Anne Porter, Tim O'Brien, and Sandra Cisneros.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 312, RooWriter.
ENGLISH 438 The "New Letters" Writing Conference Credits: 1-3
An intensive weekend conference for creative writers of varying genres and levels of experience, published and unpublished – fiction, poetry, nonfiction, stage and screen. The conference includes creative and interdisciplinary sessions on writing and publishing, genre-specific workshops, socializing and networking opportunities, and private manuscript consultations. The course of study for two-and three-credit students includes selected reading and post-weekend tutorial time conducted by accomplished, working writers. The conference may be repeated once for credit. Two- and three-credit students need the instructor's consent and must have taken a 300-level creative-writing course in the focus genre prior to enrolling.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 439 Shakespeare and Film Credits: 3
Grounded in the close analysis of texts, this course examines film adaptations of Shakespeare's plays across the range of dramatic genres (history plays, tragedy, comedy, and romance). This course is open to seniors and graduate students only. Graduate students will be responsible for supplemental critical readings.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 323.

ENGLISH 440 American Culture Credits: 3
Texts that offer perspectives on key historical themes of American culture. Texts may be grouped around any culturally significant principle (e.g. region, race, gender, class, ethnicity, religion) or theme (e.g. the mythology of the frontier, marriage and domesticity, the American Dream). The course may be taken twice for credit, provided substantive changes in topic.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 311 and ENGLISH 321.

ENGLISH 441 Girls And Print Culture Credits: 3
This course deals with girls' relationships to the continually evolving print culture. Students will examine various literary representations of girlhood by adult writers, explore texts directed at girls (e.g., conduct books, periodicals, textbooks), and study the writing and reading practices of girls themselves.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 442 Playwriting I Credits: 3
Theory and practice of writing for the theatre with emphasis on the basic techniques.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 443 Playwriting II Credits: 3
Theory and practice of writing for the theatre with emphasis on advanced techniques.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 445 History And Principles Of Rhetoric Credits: 3
A study of selected writings of ancient, and modern rhetoricians illustrating key issues in the development of Western discourse theory and practice. Issues examined include the relationships between rhetoric and knowledge, orality and literacy, and rhetoric and poetics. Attention will also be given to the implications of rhetorical theory for modern language instruction.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 447 Theory and Criticism in English Studies Credits: 3
A survey of major schools and methods of literary theory and criticism. Authors and texts to be determined by the instructor of the course.
Prerequisites: ENGLISH 225 or DISC 200, junior or senior standing and six hours of literature.

ENGLISH 448 External Internship Credits: 1-3
Students may complete an external internship involving writing and editing with a publishing company, trade magazine, literary or academic journal, other print or electronic media organization, or with advertising, public relations, or non-profit firms. Internships are granted on a competitive basis. Students will compile a portfolio of their work under the direction of the internship supervisor to be submitted for evaluation to the department's internship coordinator.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 449A Publication Practicum Credits: 1-3
This course provides practical experience with New Letters magazine, New Letters on the Air, and BkMk Press in business analysis/reporting, copy-editing, manuscript evaluation, promotion/grant development, library research, market research, and other skills. The practicum is limited to three students per semester, to be chosen on the basis of demonstrated writing and organizational skills. References are required. May be taken for no more than three credit hours over a maximum of two semesters.
Prerequisites: ENGLISH 225 or DISC 200; Permission of the instructor.

ENGLISH 449B Publication Practicum Credits: 3
This course covers the basics of producing an issue of an academic journal. Students acquire hands-on experience at all stages of production.
Prerequisites: ENGLISH 225 or DISC 200.
ENGLISH 449C Publication Practicum Credits: 1-3
This course allows students to work with a faculty member on an ad hoc project for publication such as a special journal issue or festschrift, book manuscript, a new scholarly edition of a primary text, or a digital edition. Course may be repeated once for continued work on the same project. **Prerequisites:** ENGLISH 225 or DISC 200.

ENGLISH 450 Special Readings Credits: 1-3
Intensive individual readings in a field, genre, or individual figure to be selected by a student or a group of students in consultation with an instructor willing to direct the project. Generally limited to graduating seniors who have completed the majority of the work for their major. Not open to students in their first semester at UMKC. May be repeated for credit. **Prerequisites:** ENGLISH 225 or DISC 200.

ENGLISH 451 Shakespeare Comedies And Histories Credits: 3
A study of Shakespeare's major comedies and history plays with special emphasis on his dramatic works before 1600. **Prerequisites:** ENGLISH 225 or DISC 200, ENGLISH 317 and ENGLISH 323.

ENGLISH 452 Early English Drama Credits: 3
English religious and secular drama prior to Shakespeare. Mystery and morality plays are studied, with emphasis on their literary and social backgrounds. Close reading of such works as "Everyman," "The Wakefield Second Shepherd's Play," and "The Spanish Tragedy." **Prerequisites:** ENGLISH 225 or DISC 200, ENGLISH 317 and ENGLISH 323.

ENGLISH 453 Modern Drama, 1880-1945 Credits: 3
A study of modern drama: Continental, British, and American, including history and development, critical theory, and literary evaluation. This course will focus on the earlier modern playwrights from Ibsen and Shaw, with special attention to naturalism. **Prerequisites:** ENGLISH 225 or DISC 200.

ENGLISH 454 The Civil Rights Movement in African American Literature Credits: 3
This course examines how African American literature shaped ideas about freedom, rights, citizenship and race in the civil rights movement. It draws on a variety of literary forms—speeches, essays, autobiographies, fiction, drama, poetry and film—to explore the movement's impact on communities and cultures as well as its various debates and competing visions.

ENGLISH 455 Studies In The Novel 1740-1900 Credits: 3
An intensive study of no more than three major novelists of the eighteenth or nineteenth century. The content of the course will change, depending on the instructor. **Prerequisites:** ENGLISH 225 or DISC 200, completion of six hours of literature.

ENGLISH 456 From Field Shout to Hip Hop: African American Poetic Traditions Credits: 3
This course examines the development of African American poetry from its early forms as field shouts, ballads, and blues to present forms including spoken word and hip hop. Includes authors such as Phillis Wheatley, Paul Lawrence Dunbar, Langston Hughes, Gwendolyn Brooks, Tupac Shakur, and Jessica Care Moore.

ENGLISH 457 Stages Toward Freedom: African American Dramatic Traditions Credits: 3
This course explores the development of African American dramatic traditions from the eighteenth century through the Harlem Renaissance Black Arts Movement, to current postmodernism. Includes authors such as W.W. Brown, Zoran N. Hurston, Amiri Baraka, Sonia Sanchez, August Wilson, Suzan-Lori Parks.

ENGLISH 458 Slave Narratives: Race, Gender, and Writing Freedom Credits: 3
A truly American, home grown genre and powerful force in the development of American political and social realities, the African American Slave Narrative is an established, recognized influence in the development of African American and American literary history. In this course you will have the opportunity to explore the historical trajectory of the Slave Narrative, looking at early formulations of its structure, purpose and conventions—especially in terms of gender and race, subsequent various permutations, and the eventual development of the Neo-slave Narrative as its resurrection, which adds to the complexity and theoretical impact of the literary autobiography from black perspectives.

ENGLISH 459 African American Migrations in Literature Credits: 3
The course examines representations of two different trajectories of migration in African American literature: African American journeys from the south to northern and mid-western regions of America, and concurrent migrations of Caribbean people to the US in the early twentieth century.

ENGLISH 460 Special Offerings Credits: 1-4
The visiting professor who gives this course determines what its content shall be. All aspects of literature and linguistics are within its possible range. **Prerequisites:** ENGLISH 225 or DISC 200.

ENGLISH 461 Shakespeare Tragedies And Romances Credits: 3
A study of Shakespeare's major tragedies and late romances with special emphasis on his dramatic literature after 1600. **Prerequisites:** ENGLISH 225 or DISC 200, ENGLISH 317 and ENGLISH 323.
ENGLISH 462 Restoration And 18th-Century Drama Credits: 3
The drama after the restoration of the monarchy and the reopening of the theaters through the 18th century. Special emphasis is placed on the comedy of manners and the heroic drama in the Restoration and the sentimental comedy in the 18th century. Includes such playwrights as Dryden, Congreve, Etherege, Wycherley, Steele, Lillo, Cumberland, Sheridan, and Goldsmith.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 317.

ENGLISH 463 Contemporary Drama II Credits: 3
A study of contemporary drama: Continental, British, and American, including history and development, critical theory and literary evaluation. This course will focus on the more recent writers, including the absurdist, with special attention to experimental drama.
Prerequisites: ENGLISH 225 or DISC 200.

ENGLISH 464 Medieval Methods & Paleography Credits: 3
This course examines the methodology and historiography of Medieval Studies. Through an introduction to paleography, the study of medieval handwritings, it prepares students for advanced work in Medieval and Renaissance studies. Using an interdisciplinary approach, this course will examine the historical and cultural settings for medieval texts, their physical form and production, as well as the tradition of textual transmission in the medieval world. In addition to gaining familiarity with the many different types of primary sources, such as literary, artistic, legal and notarial sources, students will be exposed to methods for practical archival work in various European nations.
Prerequisites: ENGLISH 225 or DISC 200, First Year Latin.

ENGLISH 465 Studies In The Modern Novel Credits: 3
An intensive study of no more than three major 20th-century novelists. The content of the course will change, depending on the instructor.
Prerequisites: ENGLISH 225 or DISC 200, completion of six hours of literature.

ENGLISH 468 Women's Literature in Africa and the African Diaspora Credits: 3
This course is a comparative examination of the variety of literary works produced by women of African descent in the United States, the Caribbean and Africa. Students will explore the cross-cultural implications of texts in light of the intersections of gender, race and class.

ENGLISH 470 Introduction To Descriptive Linguistics Credits: 3
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 310.

ENGLISH 475 Creative Nonfiction Credits: 3
This course emphasizes the study and crafting of creative nonfiction. Special attention is given to developing the writing techniques required to shape publishable narratives out of experience.
Prerequisites: ENGLISH 225 or DISC 200, ENGLISH 312, ENGLISH 315, ENGLISH 316WI.

ENGLISH 499 Senior Tutorial Credits: 3
A comprehensive tutorial for students who have a faculty-approved research project. The project will culminate in a critical study of 20-25 pages or a creative writing portfolio of similar length. This course is appropriate for students who intend to continue their studies at the graduate level.
Prerequisites: ENGLISH 225 or DISC 200.

Entrepreneurship (ENT)

Courses

ENT 315 Entrepreneurial Mindset and Opportunity Recognition Credits: 3
This course teaches students how to develop an entrepreneurial mindset. Students will utilize play, creative problem solving, design thinking, and creativity tools while developing skills to mitigate risk and recognize opportunities.

ENT 321 Real Estate Principles Credits: 3
Starting with the basics of real estate terminology, students learn real estate's role in the economy, it's legal foundations, government controls, appraisal processes, valuation processes, brokering and closing transactions, time value of money, basic management issues and lease clauses, and basic standard form purchase contracts.

ENT 326 Creativity, Innovation, and Problem Solving Credits: 3
This course examines creativity and innovation, and their application to problem solving and developing new initiatives. Students will develop the ability to understand and solve problems and initiate opportunities by thinking new things. They will understand the concepts, skills, information, attitudes, and resources that leaders need to create valuable ideas, products, or initiatives.

ENT 327 Designing the Business Model Credits: 3
This course will teach students how to design a business model, refine that business model, and create a plan for a new venture. This course will take students through several different toolkits that can be used to create for-profit startups, social ventures, or create value within an existing organization.
Prerequisites: ENT 315 and MGT 301.
ENT 329 Entrepreneurship Scholars Credits: 3
In this course, students will acquire the skills required to manage and grow a successful new venture through hands-on, real-world work on their own venture. Students will work with the instructor and at least one mentor to identify specific deliverables and a long-term venture plan. Students will manage their enterprise, attend a series of workshops, and work with their peers, instructional coaches, and mentors to further their venture.  
Prerequisites: Departmental consent with special application and selection process.

ENT 332 Managing the New Venture: Experiential Learning Credits: 3
In this course, students will acquire the skill sets needed to manage and grow a successful new venture, and will actually manage a new enterprise. 
Prerequisites: ENT 215 or ENT 315 and ENT 327.

ENT 341 Technology Entrepreneurship Credits: 3
This course is designed to familiarize students with the creation of successful, high-value enterprises, with an emphasis on markets for technology and venture capital. Students identify a business opportunity, create a technology-based solution, and assess the commercial and technological viability of the business opportunity. Case studies will emphasize life sciences, engineering, and information technologies.

ENT 361 New Product Development Credits: 3
This course introduces students to a formal process used to develop new products and services. Throughout the process, students learn how an abstract idea can be transformed into concrete product concepts that will in turn be translated into tangible working prototypes.

ENT 364 Entrepreneurial Management and Innovation Credits: 3
Students are exposed to the unique entrepreneurial experience of conceiving, evaluating, creating, managing, and eventually selling a business. The goal is to provide a comprehensive background with practical application of important concepts applicable to an entrepreneurial environment. Key business areas of finance, accounting, marketing, and management will be addressed from an entrepreneurial perspective.

ENT 412 Entrepreneurial Finance Credits: 3
This course examines the financing and valuation of new ventures from the perspectives of entrepreneurs and venture capitalists. The focus is on financial thinking, tools, and techniques that are relevant for seeking new venture financing and making investment decisions. The course is suitable for anyone with an interest in startup companies, venture capital, or private equity firms.  
Prerequisites: ACCTNG 210 and ENT 327.

ENT 421 Real Estate Finance Fundamentals Credits: 3
This course will provide a fundamental understanding of basic financial concepts of real estate including compounding and discounting, construction of amortization tables and after-tax yield analysis for a simple real estate investment. It also touches on the basics of title insurance, ownership issues, fixed rate versus variable rate mortgages in residential real estate, understanding housing bubbles, and trends in valuation of residential real estate. In addition, the student will complete mathematical comparisons of leasing versus owning a home.

ENT 425 Corporate Entrepreneurship Credits: 3
This course seeks to equip students with the skills required to develop new ideas and create viable new businesses or processes within the context of an established organization. The course will address the development of an internal culture of innovation, processes for reviewing ideas and for developing business concepts, strategic analysis, and positioning for competitive advantage.

ENT 432 Entrepreneurial Marketing and Selling Credits: 3
This course exposes students to the objectives, challenges, and requirements for effective, results-oriented marketing activities and sales efforts for the entrepreneur/new venture. Key topics include the selection, design, and budgeting of entrepreneurial marketing and advertising programs, along with effective selling, customer acquisition, and service/retention efforts.

ENT 460 Creating the Enterprise Credits: 3
This course looks at the processes and skills individuals require in order to create their own enterprise, manage a new business, or work within an entrepreneurial organization. Students will learn how to take a good idea, assess that idea, and develop an appropriate business model, and will work in teams to develop a full-length business plan.  
Prerequisites: (or concurrent) ACCTNG 211, FIN 325, MKT 324, MGT 330, DSOM 326.

ENT 461 Social Entrepreneurship Credits: 3
This course introduces students to social entrepreneurship through lectures and discussions, key readings, guest speakers such as social entrepreneurs, case studies, videos, service-learning activities, and group assignments. Students will develop an understanding of the social entrepreneurship process, the differences between social entrepreneurship and business entrepreneurship, social enterprise, and different revenue streams including the importance of sustainability. By the end of the course, students will be able to develop a social entrepreneurship project proposal on a social problem they are compassionate about and make a presentation to the class.

ENT 462 Entrepreneurial Experience Credits: 3
In this course students integrate skill sets and apply an entrepreneurial mindset to a practical experience. The process includes identifying an opportunity, taking action, and evaluating outcomes of actions taken. The experience will be through project-based consulting for a startup or entrepreneurial organization or within the context of a student’s own venture with prior approval.  
Prerequisites: ENT 327, ENT 412.

ENT 487 Special Topics Credits: 3
Special topics in entrepreneurship.
ENT 496 Internship: Entrepreneurship Credits: 1-3
This course provides an opportunity for students to integrate their academic studies via employment with a business or organization in the community.

ENT 497 Special Topics: Entrepreneurship Credits: 1-3
Study and research in areas of special interest under individually faculty direction.
Prerequisites: Departmental consent.

ENT 497A Special Topics: Entrepreneurship Credits: 1-3
Study and research in areas of special interest under individually faculty direction.

ENT 497B Special Topics: Entrepreneurship Credits: 1-3
Study and research in areas of special interest under individually faculty direction.

Environmental Sciences (ENV-SCI)

Courses

ENV-SCI 110L Understanding the Earth Laboratory Credits: 2
Laboratory and field demonstration and exercises in environmental science. Weekly exercises or field trips.
Co-requisites: ENV-SCI 110R.

ENV-SCI 110R - MOTR PHYS 110L: Essentials Physical Sciences w/Lab

ENV-SCI 110R Understanding the Earth: Introduction to Environmental Science and Laboratory Credits: 3
This introductory course surveys the processes that shape our planet. Topics include: plate tectonics and mountain-building, rivers and oceans, atmospheric circulation, weather and climate, and the amazingly complex relationships between life on Earth and the physical environment.

ENV-SCI 210 Issues in Environmental Science Credits: 3
Explores important environmental issues such as air and water pollution, water supply, climate change, agriculture and food supply, environmental health, ecosystem disruption, environmental management, environmental ethics, and energy resources. Topics may vary depending on current events.

ENV-SCI 220 Ecosystem Science for Decision Makers Credits: 3
This course addresses the fundamentals of ecosystem science with an emphasis on human-induced change in natural systems. Course content characterizes the biological patterns found in nature emphasizing application of underlying principles. Scientific tools are provided to evaluate ecosystem concerns and make informed decisions.

ENV-SCI 303 Weather and Climate Credits: 4
Overview of weather processes and the main components of the climate system. Emphasis is on the physical basis of daily weather patterns, seasonal climate variability and longer-term climate change at local, regional, and global scales. The theme throughout the course will be the importance of weather and climate as major drivers of environmental change.
Prerequisites: ENV-SCI 110R or GEOLOGY 220.

ENV-SCI 310 Field Experience in Waste Management Credits: 2-3
This course provides an overview of waste management issues, including nature, classification and disposal of various wastes, and U.S. laws governing the management of solid, hazardous, biologic and nuclear waste. Lectures and discussions will be supplemented by visits to waste management facilities to study methods and technologies used for treatment and disposal of wastewater, solid, hazardous, and biologic wastes. This field-intensive course includes travel to neighboring states and includes an overnight out-of-town stay. Final report required.

ENV-SCI 321 Climate Change Impact Assessment and Policy Response Credits: 3
This course introduces how scientists assess observed climate change and predict future climate change. Lectures, discussions, problem sets, and term papers help students explore interactions among climate change, human activities and policy responses. It helps students achieve an appreciation for the role of accurate scientific information as foundation for shaping political agreements and policies on climate change.
Prerequisites: ENV-SCI 110R.

ENV-SCI 332CZ Environmental Sustainability Credits: 3
This course will introduce the concept of sustainability and review how sustainability might work at the individual, neighborhood, state, nation and global scales. Students will participate in some form of community engagement on sustainability as well as reflect upon how their own practices impact the environment.
ENV-SCI 416 Understanding and Living with Volcanoes Credits: 3
This course will examine the distribution, tectonic setting, and morphology of a range of volcano types on Earth and a few examples from other planets. Students will study volcanic processes including explosive and passive processes and how we investigate them. This will involve discussion of volcanic hazards and hazard assessment, risk communication, and the challenges of volcanic crises response. The course will also cover how volcanoes impact the local and global economy and Earth's climate. Recommended preparation: GEOG 314 / GEOLOGY 314 or GEOLOGY 325 or GEOLOGY 342.
Prerequisites: GEOLOGY 220 or ENV-SCI 110R/ENV-SCI 110L, and GEOG 203 or GEOG 402.

ENV-SCI 449 Global Water and Sustainability Credits: 3
This course examines the physical characteristics of water and its role in Earth systems. The challenges facing societies in an era of rapidly-changing climate are explored.
Cross Listings: GEOG 449.

ENV-SCI 496 Environmental Internship Credits: 1-4
Students obtain practical experience working for local engineering and environmental firms, or governmental agencies. Specific duties and application requirements will vary depending on the funding organization's needs. Junior or senior standing required for undergraduates.

Environmental Studies (ENV-STDY)

Courses
ENV-STDY 325 Cultural Perspectives on the Environment Credits: 3
This course explores the history of conservation practices in American agriculture from the 1700s through the present. Additionally, the course examines the past and present legal implications of environmental statutes for minority farmers from a social and environmental justice perspective.
Cross Listings: GEOG 325.

ENV-STDY 334 Gender and the Environment Credits: 3
This course provides a survey of different ways women relate to nature. The objectives of the course are: to understand historical relationships between women and nature in the western world, to understand different theoretical approaches to studying women and nature, to explore the geography of women's activism on behalf of the environment, and to understand how women's health is linked to the environment.
Cross Listings: GEOG 334.

ENV-STDY 412 Global Tourism Credits: 3
This course is a regional survey of world tourism. Topics include the uniqueness of place, the marketing of tourist destinations, and the cultural, economic, and environmental impacts on host societies.
Prerequisites: GEOG 105 or GEOG 200 or GEOG 202.

ENV-STDY 430 Soil and Groundwater Remediation Credits: 3
Prerequisites: GEOG 335 (or GEOLOGY 335).

ENV-STDY 450 Ecotoxicology Credits: 3
This course addresses the fundamentals of ecotoxicology, integrating the sciences of ecology and toxicology. Students will learn the biological basis for pollutant effects on individuals and populations of plants and animals, how pollutant intensity varies as a function of bioavailability, the basics of risk assessment, and how pollutant effects are modified by ecological interactions within communities and ecosystems. The ultimate goal of ecotoxicology is to predict the effects of pollution within an ecological context.
Prerequisites: BIOLOGY 108, CHEM 211, CHEM 212R.

ENV-STDY 499WI Environmental Studies Practicum Credits: 3
Students conduct research, participate in discussions, and prepare written reports on selected topics concerning the environment.
Prerequisites: Senior standing, RooWriter.

Euphonium (EUPHNM)

Courses
EUPHNM 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major.

EUPHNM 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.
EUPHN 100C Applied Study for the Non-Music Major. Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.
EUPHN 101 Freshman Euphonium I Credits: 2-4
EUPHN 102 Freshman Euphonium II Credits: 2-4
EUPHN 201 Sophomore Euphonium I Credits: 2-4
EUPHN 202 Sophomore Euphonium II Credits: 2-4
EUPHN 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Co-requisites: Enrollment in lessons.

Cross Listings: EUPHN 5300.
EUPHN 301 Junior Euphonium I Credits: 2-4
EUPHN 302 Junior Euphonium II Credits: 2-4
EUPHN 401 Senior Euphonium I Credits: 2-4
EUPHN 402 Senior Euphonium II Credits: 2-4

Finance (FIN)

Courses
FIN 325 Financial Management Credits: 3
This course provides an overview of the relationship between business decisions and the value of the firm, as determined by the marketplace. Students will study the composition of capital structure, capital budgeting, and cost of capital theory, including incremental analysis of investment situations.
Prerequisites: ACCTNG 210; Bloch or BIT student with sophomore standing.

FIN 326 Financial Management 2 Credits: 3
Explores leverage and capital structure, dividend policy, raising capital, short-term financial planning, working capital management and international financial management. FIN 326 builds on the content of FIN 325. A cursory knowledge of accounting principles is assumed, as well as fluency with simple algebra and arithmetic skills.
Prerequisites: ACCTNG 210, FIN 325.

FIN 340 Global Financial Markets and Institutions Credits: 3
Students are introduced to global financial markets and institutions as well as the regulators. Topics include financial instruments, past and current global financial crises, financial restructuring and reforms, and the interrelationships between financial and real economies.
Prerequisites: FIN 325.

FIN 345 Investments Credits: 3
The course develops the theoretical framework necessary for a systematic approach to portfolio management. Content includes consideration of investment objectives, measurement of risk and returns, alternative uses of invested funds, analysis of securities markets, and the techniques of security analysis. Students will have an opportunity for the creation and management of an investment portfolio.
Prerequisites: FIN 325.

FIN 350 Introduction to Risk Management and Insurance Credits: 3
This course introduces students to the principles of personal and corporate risk management. Personal risk management topics include: personal insurance planning, annuity investing and personal liability management. Corporate risk management topics include: managing corporate risk, reducing risk through hedging, and legal liability risk.
FIN 351 International Financial Management Credits: 3
The world's business activities and economics are becoming more integrated. This course provides an introduction, appreciation and understanding of how this process impacts financial decisions for global business. Students should expect to develop an integrated analytical and decision making perspective that will enable them to extend financial concepts such as capital budgeting and risk management, and instruments such as forwards, swaps, fixed income analysis, arbitrage, etc. to their international analogs.
Prerequisites: FIN 325.

FIN 369 Payment Systems Credits: 3
The payment system is central to virtually all economic transactions. The payment system also has been undergoing fundamental changes over the past two decades. Yet, the payment system is one of the least understood parts of the economic system. The purpose of this course is to examine the payment system from economic, business, and regulatory standpoints.
FIN 419 Financial Statement Analysis Credits: 3
Students will take an in-depth look at the external financial statements that are prepared by corporations, including the tools needed to organize, summarize, and understand corporate financial data for use in decision making. Ratio analysis, trend analysis, earnings forecasting, bankruptcy predictors, statistical methods important to finance, and financial data bases are among the topics that will be covered. **Prerequisites:** FIN 325 and must have junior standing with a major or minor within the Bloch School of Management.

FIN 428 Commercial Bank Management Credits: 3
This course presents an overview of financial management of the interest spreads, credit risk, liquidity, and capital positions of commercial banks. Topics to be covered include analysis of bank profitability, lending functions and policy, securities investment strategies, fund attraction, regulatory examination, capital adequacy, and integrated asset/liability management. Instructional media includes cases and computerized bank management simulation. **Prerequisites:** ECON 202, FIN 325.

FIN 435 Advanced Corporate Finance Credits: 3
The course focuses on the finance function of the firm from the managerial perspective. Topics include working capital management, capital budgeting, financial structure, merger and reorganization, capital rationing, and analysis of risk. Students will use cases and computer techniques. **Prerequisites:** FIN 325 and FIN 326.

FIN 445 Advanced Investments Credits: 3
Students take an in depth look at some of the advanced investment analysis tools used by practicing portfolio managers. This course covers the valuation of both derivative securities and fixed-income securities. There is also a strong focus on managing price risk, interest rate risk, and exchange rate risk. In addition there is an emphasis on bond portfolio management and derivative security applications. **Prerequisites:** FIN 345.

FIN 451 Life & Health Insurance Credits: 3
This course focuses on insurance issues related to life and health insurance. Content includes consideration of life insurance needs, annuities, disability insurance, long-term care insurance, and personal and corporate health insurance issues. **Prerequisites:** FIN 350.

FIN 452 Property and Casualty Insurance Credits: 3
This course focuses on insurance issues related to commercial property and liability insurance. Content includes consideration of issues related to managing risks such as loss of business income, employer liability, management liability, environmental liability and cyber-liability. **Prerequisites:** FIN 350.

FIN 453 Risk Management Credits: 3
This course focuses on insurance issues related to managing corporate risk. Content includes consideration of issues related to managing risk such as enterprise risk management, reinsurance, corporate property and liability, and corporate uses for death and disability insurance for key employees. **Prerequisites:** FIN 350.

FIN 454 Principles of Surety and Corporate Liability Credits: 3
This course focuses on insurance issues related to surety bonding and corporate liability. Content includes consideration of issues related to managing risk such as mitigating environmental liability, corporate safety programs, and surety bonding. **Prerequisites:** FIN 350.

FIN 476 Introduction to Fintech Credits: 3
This course will introduce students to Fintech and provide an overview of the main areas in which it is disrupting finance. These areas include lending and equity investment (algorithmic lending, P2P lending and crowdfunding platforms); financial market infrastructure (cryptocurrencies, blockchain technology, smart contracts); portfolio management and financial advice (robo-investment); and financial trading (algorithmic trading, digital trading platforms). Students will learn how the new financial technologies work, how incumbents and new entrants might profit from the technologies, and how the technologies could affect the efficiency, accessibility, fairness, and security of the financial system. **Prerequisites:** FIN 325.

FIN 487 Special Topics Credits: 3
Special topics in finance.

FIN 496 Internship: Finance Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community. Internship coursework is evaluated on a credit/no credit basis.

FIN 497 Special Topics: Finance Credits: 1-3
Study and research in areas of special interest under individual faculty direction. **Prerequisites:** Departmental consent.

**Flute (FLUTE)**
Courses
FLUTE 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major.

FLUTE 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

FLUTE 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

FLUTE 101 Freshman Flute I Credits: 2-4
FLUTE 102 Freshman Flute II Credits: 2-4
FLUTE 201 Sophomore Flute I Credits: 2-4
FLUTE 202 Sophomore Flute II Credits: 2-4
FLUTE 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

Co-requisites: Enrollment in lessons.

Cross Listings: FLUTE 5300.

FLUTE 301 Junior Flute I Credits: 2-4
FLUTE 302 Junior Flute II Credits: 2-4
FLUTE 401 Senior Flute I Credits: 2-4
FLUTE 402 Senior Flute II Credits: 2-4

Foreign Language (FRN-LNG)

Courses
FRN-LNG 180 Special Elementary Foreign Languages Topics I Credits: 2-5
Instruction in foreign languages at the elementary level. Essentials of grammar, basic conversation and reading, practical vocabulary. May include introduction of new methods of foreign language teaching, special texts, and languages not offered through regular courses.

FRN-LNG 190 Special Elementary Foreign Languages Topics II Credits: 2-5
Continuation of FRN-LNG 180.

Prerequisites: FRN-LNG 180.

FRN-LNG 280 Special Intermediate Foreign Languages Topics I Credits: 1-4
Instruction in foreign languages at the second-year intermediate level. Further development of comprehension and communicative skills. Readings of moderate difficulty and grammar review. May include introduction of new methods of foreign language teaching, special texts and topics, and new languages not offered through regular courses.

FRN-LNG 290 Special Intermediate Foreign Languages Topics II Credits: 1-4
Continuation of FRN-LNG 280.

FRN-LNG 302 Love and Death in European Medieval Literature Credits: 3
This course explores the intertwined themes of love and death in medieval European literature. Students will read key works from the medieval European traditions in English and will also be introduced to key concepts in the comparative study of medieval culture.

FRN-LNG 380 Special Topics Credits: 1-3
Treatment of a particular genre or area of literature or language normally not offered through regular courses. May be repeated for credit when the topic changes.

FRN-LNG 459 Foreign Languages Teacher Education Seminar Credits: 3
Supports the culminating Foreign Languages student teaching experiences, and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences, for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessment for individual learners. Peer and mentor collaboration in the analytical process are fundamental to the course objectives.
FRN-LNG 470A Internship in Foreign Languages Credits: 1-3
Intern experience under faculty supervision involving the use of the appropriate foreign language with a local firm, non-profit organization, etc. students will compile a portfolio of their work under the direction of the internship supervisor to be submitted for evaluation by their chosen faculty mentor.
Prerequisites: at least 9 hours prior FRN-LNG coursework in the appropriate language, junior standing.

FRN-LNG 470B School/Education Related Internship in Foreign Languages Credits: 1-3
Intern experience under faculty supervision involving the use of the appropriate foreign language at a local school. Students will keep a journal in the foreign language.
Prerequisites: at least 9 hours of prior FRN-LNG coursework in the appropriate language.

FRN-LNG 480 Special Topics Credits: 1-3
Each time this course is offered a particular genre or area of literature will be treated. Topics will be announced in advance. May be repeated for credit when the topic changes.

FRN-LNG 494 Methods of Teaching Foreign Languages Credits: 3
Teaching methods and materials for beginning and advanced classes in French, German, and Spanish. Modern language teaching methodology and material will be evaluated and demonstrated, together with effective use of the Language Resource Center, tapes, slides, film strips, and other audio-visual materials. Does not count toward a major in foreign language.
Prerequisites: 3.0 GPA in the foreign language.

French (FRENCH)

Courses

FRENCH 110 Elementary French I Credits: 3
The goals of this course are an ability to speak and to understand simple (spoken) French as well as to read and write simple prose.

FRENCH 120 Elementary French II Credits: 3
Continuation of FRENCH 110.
Prerequisites: FRENCH 110.

FRENCH 211 Second Year French I Credits: 3
Further development of comprehension and communicative skills in the language. Readings of moderate difficulty and grammar review. Practice in writing. The goal is attainment of intermediate proficiency in the language.
Prerequisites: FRENCH 120.

FRENCH 221 Second Year French II Credits: 3
Continuation of FRENCH 211.
Prerequisites: FRENCH 211.

FRENCH 280 Special Intermediate French Topics I Credits: 2-4
Instruction of French on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit.
Prerequisites: FRENCH 110, FRENCH 120.

FRENCH 290 Special Intermediate French Topics II Credits: 2-4
Continuation of FRENCH 280. May not be repeated for credit.
Prerequisites: FRENCH 280.

FRENCH 301 Introduction to French Literature Credits: 3
An introduction to the study of different genres of French literature and techniques of criticism. Readings include representative works of major authors from various periods. Strongly recommended for all majors, to be taken before or concurrently with other literature courses. Taught in French.

FRENCH 303 Masterpieces of French Literature I Credits: 3
An introduction to the history of French literature from the Middle Ages to 1800, stressing the historical context, the major literary movements, and the development of the various genres. Selected readings of the works of the major authors of the period. Taught in French.
FRENCH 304 Masterpieces Of French Literature II Credits: 3
An introduction to the history of French literature from 1800 to the present stressing historical context, the major literary movements and the
developments of the various genres. Selected readings of the works of major authors of the period. Taught in French.

FRENCH 315 Intermediate Composition and Conversation Credits: 3
Grammar review, practice in speaking and writing French, emphasis on writing. Required for major.
Prerequisites: FRENCH 221.

FRENCH 325 Intermediate Conversation and Composition Credits: 3
Grammar review, practice in speaking and writing French; emphasis on speaking. Required for major.
Prerequisites: FRENCH 221.

FRENCH 340WI French Texts in Translation Credits: 3
Seminar on French texts in translation. Class will be conducted in English and no knowledge of French is necessary. May be taken for major credit.
Prerequisites: ENGLISH 110, ENGLISH 225, RooWriter.

FRENCH 350 French Civilization I Credits: 3
An historical introduction to French civilization and culture with emphasis on historical, social and cultural development.
Prerequisites: FRENCH 221.

FRENCH 351 Introduction to French Phonetics Credits: 3
Drill and practice in pronunciation in class and in language laboratory.
Prerequisite: FRENCH 221.

FRENCH 352 French Civilization II: Contemporary French Civilization Credits: 3
An in-depth survey of contemporary French culture, including major historical events and movements that have shaped modern France, as well as
geography, the political system, family life and education, economics, etc.
Prerequisites: FRENCH 221.

FRENCH 354 French Civilization III: Lyon, Crossroads of France and Europe Credits: 3
An introduction to French culture and civilization through the history, geography, culture and arts of Lyon and its region. Offered during the Study
Abroad Program in Lyon.

FRENCH 380 Special Topics Credits: 1-3
Treatment of a particular genre or area of literature or language normally not offered through regular courses. May be repeated for credit when the
topic changes.

FRENCH 414 Medieval Literature Credits: 3
Selected readings in various genres including epic, romance, theater and lyric. Emphasis will be placed on the intertextual relations and the cultural
and historical context surrounding text production in the Middle Ages.

FRENCH 415 Advanced Conversation and Composition I Credits: 3
Practice in speaking and writing French, with attention to the elements of style. First semester required of all majors and second semester
recommended. Both semesters required of prospective high school teachers. Either or both semesters may be repeated. No more than six hours of
credit may be applied toward a degree.
Prerequisites: FRENCH 325.

FRENCH 417 16th-Century French Literature Credits: 3
Selected readings in prose and poetry from Marot through Astree. Authors may include Rabelais, Ronsard, du Bellay, Montaigne, Marguerite de
Navarre.

FRENCH 424 19th-Century French Literature Credits: 3
Selected readings in various genres from Romanticism through Symbolism.

FRENCH 426 20th-Century French Literature Credits: 3
Selected readings from the Belle Epoque to the contemporary period.

FRENCH 435 Directed Discussions In Advanced French Credits: 3
Directed discussion on contemporary French culture. The discussions cover a wide range of topics on modern France: social, intellectual and cultural
aspects. Students will participate and have the opportunity to observe and react within a cultural frame of reference. Open to advanced students of
French and to teachers of the language for in-service training.

FRENCH 440 Medieval Romance Credits: 3
The various movements of French medieval romance from the 12th through 15th centuries with an emphasis on the 12th and 13th centuries. Analysis
of literary technique and socio-historical context will be stressed. No knowledge of Old French is assumed.
FRENCH 443 Early French Theater Credits: 3
An examination of the development of French theater from Late Antiquity through the Renaissance, including religious and secular drama. The focus is on literary analysis of the dramatic texts, with some consideration of theater history and dramaturgy. 
Prerequisites: FRENCH 221.

FRENCH 444 Renaissance Poetry Credits: 3
French poetry from the Grand Rhetoriqueurs through the Pleiade. Study of poetic forms, major poets and schools, and different approaches to analyzing poetry. 
Prerequisites: FRENCH 221.

FRENCH 449 Survey of French Theater Credits: 3
A survey of the major French playwrights and their plays from the 17th through the 21st centuries. Historical and cultural influences will be covered as well as the specificities of the genre from the perspective of how the plays are performed and how we read them.

FRENCH 452 Medieval Poetry Credits: 3
A study of medieval poetry including religious and secular poetry, Provencal and Old French lyric, the influence of poetry in other genres such as romance and theater, later medieval poetry of the 14th and 15th centuries, as well as a discussion of the origins of the lyric. 
Prerequisites: FRENCH 221.

FRENCH 455 Fin-De-Siecle and Belle Epoque Credits: 3
Study of the literary, cultural and historical context of this time period in French history, for example: Symbolism, Decadence, and the years 1900-1914.

FRENCH 457 20th Century French Narrative Credits: 3
The analysis of major currents in French 20th century narrative, especially fiction and film. Courses will be organized around narrative themes or historical events and will include social and cultural components.

FRENCH 463 19th-Century French Fiction Credits: 3
Studies in the birth, development and variation of French Romanticism. Readings include de Stael, Senancour, Constant, Hugo, Stendhal and Merimee. The advent of realism and naturalism in France. Readings include Balzac, Flaubert, Daudet, De Maupassant, and Zola.

FRENCH 472 Francophone Studies Credits: 3
Study of different national Francophone literatures. Reading may include writers from Quebec, Haiti, Africa, Louisiana, Vietnam, the French Indies, etc.

FRENCH 473 The Francophone World Credits: 3
This course is an introduction to a large spectrum of Francophone literatures cultures around the world with a focus on North and West Africa, Belgium, Quebec, French Antilles and Haiti.
Prerequisites: FRENCH 415.

FRENCH 474 Orientalism and Literature Credits: 3
This course focuses on the impact of Orientalism as a Western ideology of reconstruction of the Orient space. 
Prerequisites: FRENCH 415.

FRENCH 480 Special Topics Credits: 1-3
Each time this course is offered a particular author, genre or area of literature will be treated. Topics will be announced in advance. May be repeated for credit when the topic changes.

FRENCH 490 Special Readings Credits: 1-3
Intensive readings in field or literary figure to be selected by the student in consultation with the instructor. Available to advanced students of French; available only when student cannot take regularly scheduled courses.
Prerequisites: 3.0 GPA.

FRENCH 499 Senior Seminar (Capstone) Credits: 3
Required for major. Covers seminal works of French literature in their historical and cultural context. Course content varies, but will include such elements as geography, politics, folklore, history of the language, architecture, art and music. 
Prerequisites: 21 hours beyond first year.

Geography (GEOG)

Courses
GEOG 105 Introduction to the Elements of Geography Credits: 3
A survey of major elements of physical and human geography, with a concise overview of the world's regions. Emphasis on global relationships and distributions, both environmental and cultural. Climates, natural vegetation, land forms, cultural origins and diffusions, economic patterns.
GEOG 105 - MOTR GEOG 101: World Regional Geography
GEOG 150 Introduction to Physical Geography Credits: 3
This course is an introduction to the study of the natural environmental systems of earth—the atmosphere, the hydrosphere, the biosphere, and the lithosphere. The primary objective of the course is to provide a broad overview of these systems at a global scale. This overview will entail descriptions of natural systems and the variations they exhibit both from place to place and through time. It will also entail explaining how natural systems operate and interact with each other, thereby providing a necessary foundation for understanding the tremendously diverse physical geography of earth. Applies to natural science requirement.

GEOG 150 - MOTR GEOG 100: Physical Geography

GEOG 200 World Geography I Credits: 3
A survey of the physical and human geography of the regions and nations of Europe and the Americas, with Australia and New Zealand. The approach is strongly historical, emphasizing interconnections, shared colonial backgrounds and broader global contexts in the modern world. The course is aimed at non-specialists.

GEOG 202 World Geography II Credits: 3
A survey of the physical and human geography of the regions and nations of Russia and the other former Soviet republics, the Middle East, Africa, South Asia, East Asia Southeast Asia and the Pacific Realm. The approach is strongly historical emphasizing interconnections shared colonial backgrounds, and broader global contexts in the modern world. The course is aimed at non-specialists.

GEOG 203 Introduction to Geographic Information Systems Credits: 4
An introductory course covering the basic principles of geographic information systems focusing on such software programs as ARC/INFO and ARC-VIEW.

GEOG 210 Human Geography Credits: 3
A study of the geographical underpinnings and distribution of the main elements of culture, including population patterns, language, religion, political territorial organization, settlement, and economic livelihood. The environmental settings, geographic origins, diffusion, and geographic interrelationships of these culture traits are emphasized.

GEOG 303 Weather and Climate Credits: 4
Overview of weather processes and the main components of the climate system. Emphasis is on the physical basis of daily weather patterns, seasonal climate variability and longer-term climate change at local, regional, and global scales. The theme throughout the course will be the importance of weather and climate as major drivers of environmental change.
Prerequisites: ENV-SCI 110R or GEOLOGY 220.

GEOG 309 Urban Geography Credits: 3
Historical development, morphology and functions of urban places, including intercity relationships and the relationship between cities and their hinterlands; emphasis on American cities.

GEOG 311 Economic Geography Credits: 3
A systematic study of the modern world economy that includes discussion of the location of production and consumption, the nature and role of multinational enterprises in trade, resource limitations to growth, and cultural responses to globalization.

GEOG 314 Principles of Geomorphology Credits: 4
Explores the processes that shape the earth’s surface. Focuses on the development and description of fluvial, glacial, eolian, and coastal landforms. Studies the influence of tectonic and climatic factors. Field trip.
Prerequisites: ENV-SCI 110R (or GEOLOGY 220).

GEOG 317 Cartography Credits: 4
Design and preparation, by hand and computer, of informative, effective, and attractive maps and other graphics for various geographical purposes, especially term papers, thesis, and public presentations. Lectures, discussion, and laboratory.

GEOG 321 Climate Change Impact Assessment and Policy Response Credits: 3
This course introduces how scientists assess observed climate change and predict future climate change. Lectures, discussions, problem sets, and term papers help students explore interactions among climate change, human activities and policy responses. It helps students achieve an appreciation for the role of accurate scientific information as foundation for shaping political agreements and policies on climate change.
Prerequisites: ENV-SCI 110R.

GEOG 325 Cultural Perspectives on the Environment Credits: 3
This course explores the history of conservation practices in American agriculture from the 1700s through the present. Additionally, the course examines the past and present legal implications of environmental statutes for minority farmers from a social and environmental justice perspective.
Cross Listings: ENV-STDY 325.

GEOG 329 World Political Geography Credits: 3
An analysis of the influence of geographic factors (both physical and human) on the economic and political relationships of the nations of the world. Emphasis will be placed on population size and political viability of states, boundaries and frontiers as limits of national space, problems related to the spatial integration of states, and the independence and interdependence of states within the larger world political system.
GEOG 332 Cultural Geography Credits: 3
A study of the distribution and interpretation of cultural patterns throughout the world. Examined are material and non-material elements of culture such as settlement, land use, technology and belief systems. The geographic origins and diffusion of culture traits are emphasized.

GEOG 333 Geographic Elements of Urban Planning Credits: 3
Analysis of the changing form and structure of urban places from a planning viewpoint. The focus will be on land-use trends on both the intraurban and interurban levels. Covered will be such topics as planning for urban transportation, new towns, land-use planning, urban renewal, and environmental planning.

GEOG 334 Gender and the Environment Credits: 3
This course provides a survey of different ways women relate to nature. The objectives of the course are: to understand historical relationships between women and nature in the western world, to understand different theoretical approaches to studying women and nature, to explore the geography of women's activism on behalf of the environment, and to understand how women's health is linked to the environment.

Cross Listings: ENV-STDY 334.

GEOG 335 Introduction to Waste Management Credits: 3

Prerequisites: ENV-SCI 110R, GEOG 150, GEOLOGY 220.

GEOG 336 Principles of Soil Science Credits: 3
Study of genesis, evolution, distribution and classification of soils. Analysis of soil-forming materials and processes. Lecture, discussion and laboratory.

Prerequisites: ENV-SCI 110R, GEOLOGY 220.

GEOG 340 Geography of the United States and Canada Credits: 3
A survey of the physical and human geography of the United States and Canada. The approach is strongly historical emphasizing interconnections, shared colonial backgrounds, and broader international contexts in the Americas and around the globe. This course is aimed at non-specialists.

GEOG 341 Geography of South America Credits: 3
A study of the physical and human geography of South America, with an emphasis on cultural processes and the historical record. Contemporary issues such as economic development, trade, urbanization, and geopolitical conflicts are discussed.

GEOG 342 Geography of Mexico, Central America and the Caribbean Credits: 3
A study of the physical and human geography of Middle America, with an emphasis on cultural processes and the historical record. Contemporary issues such as economic development, trade urbanization, and geopolitical conflicts are discussed.

GEOG 350 Geography of Europe Credits: 3
A survey of the physical and human geography of the regions and nations of Europe. The approach is strongly historical, emphasizing international interconnections and broad global contexts. The course is aimed at non-specialists.

GEOG 351 Regional Geography of the Middle East Credits: 3
A study of human imprint upon the land through settlement patterns, institutions of land organization, and types of economy. Strategies for the economic development of various regions in the Middle East are discussed.

GEOG 360 Principles of Biogeography Credits: 4
This course is an introduction to biogeography that explores the patterns of plant and animal distributions from both ecological and historical perspectives. We examine past geologic and climatic conditions, as well as interactions between organisms and their environment to explain modern distributions of flora and fauna. Human interactions with plants and animals have increasingly profound consequences on distributions of flora and fauna from destruction to management. We explore the increasing importance of issues and strategies in conservation. The laboratory portion of the course builds on core ecological concepts and provides experiences of field observation, data collecting and data analysis.

Prerequisites: ENV-SCI 110R.

GEOG 398 Field Trip Credit: 1
Three-day field trip in March or April (at student's expense) for department majors. An opportunity to observe and study physical and cultural features and collect materials. Brief descriptive report of trip required.

Prerequisites: 6-9 hours of upper-level geography.

GEOG 401 Advanced Geographic Information Science Credits: 4
This course is designed for the students knowledgeable in the fundamentals of geographic information systems, who wish to gain expertise in advanced topics and applications in geographic information systems, remote sensing, and related environmental informatics. Classes are organized to encourage active learning. Students are encouraged and guided to develop their research projects by integrating related techniques of geographic information science.

Prerequisites: GEOG 203.
GEOG 402 Environmental Remote Sensing and Digital Image Analysis Credits: 4
This course will provide students with innovative techniques for landscape-level environmental analysis, geographic and geological studies, earth science research, and environmental resources management using remotely sensed data including satellite images. Students will be taught basic remote sensing concepts and technical skills, including energy radiative transfer processes in remote sensing, sensors and resolutions, computer-based image processing and classification, and remote sensing/GIS integration.
Prerequisites: GEOG 203.

GEOG 403WI History and Philosophy of Geoscience Credits: 3
A survey of geoscientific thought since antiquity. The substance of geography, geology, and environmental studies will be sought primarily in scholarly treatise and formal analytical systems including cartography, but the course also addresses geoscientific principles emerging from the history of environment, government, law, economy, religion, literature, and material culture. Readings, lectures, discussions, research, writing.
Prerequisites: RooWriter.
Cross Listings: GEOG 5503WI.

GEOG 404 Biogeography and Landscape Ecology Credits: 3
Principles and applications of biogeography and landscape ecology, emphasizing distribution of major ecosystems and related plants and animal species on earth, biodiversity, landscape patterns and processes, and physical, biological, and human interactions. The course explores ecosystem and landscape analyses using advanced GIS, remote sensing, and spatial modeling methods for real problem solving in environmental and biological research, ecosystem conservation, and urban planning and studies.
Prerequisites: GEOG 203, GEOG 402 (or GEOG 5502).

GEOG 406 Global Environmental Change Credits: 3
This course will examine the current rates of global environmental change and potential causes in the context of Earth’s natural climate variability. The course will follow a seminar format. Students will read and discuss published articles on current and emerging theories of forcing mechanisms in the Earth’s systems.

GEOG 412 Global Tourism Credits: 3
This course is a regional survey of world tourism. Topics include the uniqueness of place, the marketing of tourist destinations, and the cultural, economic, and environmental impacts on host societies.
Prerequisites: GEOG 105 or GEOG 200 or GEOG 202.

GEOG 416 Understanding and Living with Volcanoes Credits: 3
This course will examine the distribution, tectonic setting, and morphology of a range of volcano types on Earth and a few examples from other planets. Students will study volcanic processes including explosive and passive processes and how we investigate them. This will involve discussion of volcanic hazards and hazard assessment, risk communication, and the challenges of volcanic crises response. The course will also cover how volcanoes impact the local and global economy and Earth’s climate.
Prerequisites: GEOLOGY 220 or ENV-SCI 110R/110L, and GEOG 203 or GEOG 402.

GEOG 417 Special Topics Credits: 1-3
Individual research and study of a selected topic in geography, meteorology or earth science.

GEOG 426 Paleoeocology: Microfossils and Climate Change Credits: 3
Paleoeocology will focus on questions addressing past environments and past climates based on the ecology of microfossils. Micro-organisms are very sensitive to a wide variety of environmental conditions including temperature, precipitation, hydrology, water chemistry, salinity, habitat, and pollution. The fossil remains of these organisms are used as proxy indicators for reconstructing past environmental conditions, climate change, vegetation dynamics, and human impacts. Students will have the opportunity to process microfossils and make interpretations based on analysis data.

GEOG 430 Energy Resources Credits: 3
This course covers the distribution, origin, and utilization of all types of energy. Topics include exploration, production, storage, transportation and conservation of carbon-based fuels, hydrologic, nuclear energy, and alternate energy sources such as solar, wind, geothermal, and hydrogen.
Prerequisites: ENV-SCI 110R (or GEOLOGY 220).

GEOG 435 Geochronology Credits: 3
This course examines geochronological and archaeological methods used in reconstructing sites, settlement patterns, and paleoenvironments. Explores dating methods, soils, and stratigraphy as tools for studying landscape evolution and human occupation.
Prerequisites: GEOG 314 (or GEOLOGY 314).

GEOG 437 Population Geography Credits: 3
This course analyzes human populations: how they grow, how their compositions change, and how and why people migrate from one place to another. Students will study basic demographic processes- mortality, fertility, and migration- and underline theory and techniques. Students will also examine relationships between population growth and population planning, immigration, urbanization and cities, and the environment.
GEOG 442 Quaternary Environments Credits: 3
This course reviews earth climatic history and focuses on major mechanisms for global and regional climate change. Methods of paleoclimatic reconstruction are examined, including analysis of proxy data and climate modeling. Application of these methods toward prediction of future climate change is also explored. **Prerequisites**: GEOG 314 or GEOLOGY 314.

GEOG 444 Spatial Data Analysis Credits: 4
Quantitative techniques and applications of spatial data analysis. The course will cover basic geospatial analysis techniques including hypothesis testing, kriging, variogram analysis, multivariate analysis and reliability analysis. Emphasis is on practical applications rather than theories. Intended for Geology, Geography, Environmental Studies, and relevant fields. Three hours lecture and one hour computer lab per week. **Prerequisites**: GEOG 303.

GEOG 448 Satellite Climatology Credits: 4
Use of satellite observations to study the climate system. Discussions consider the development of satellite climatology, sensors, platforms and methodologies used to estimate climate variables from radiance measurements. Aspects of climate that are emphasized include cloud climatologies, cloud systems, atmospheric moisture, radiation budget, and land-surface conditions. Three hours lecture and one hour lab per week. **Prerequisites**: GEOG 303.

GEOG 449 Global Water and Sustainability Credits: 3
This course examines the physical characteristics of water and its role in Earth systems. The challenges facing societies in an era of rapidly changing climate are explored. **Cross Listings**: ENV-SCI 449.

GEOG 450 GIS Fundamentals for Research Applications Credits: 4
This course will address the needs of upper level undergraduate and graduate students who desire to learn and apply fundamental Geographic Information Systems concepts and techniques for their research projects. This course will draw on the content of the Introductory GIS course offered by the department but will also be flexible such that the individual needs or interest of students can be met through guided reading and/or tailored laboratory sessions. The Department of Geosciences GIS computer laboratory, with a variety of GIS and Remote Sensing software, will be available for this course. Only for upper-level undergraduate and graduate students. **Cross Listings**: ANTHRO 384.

GEOG 457 North American Prehistory Credits: 3
This class offers instruction in the archaeological survey of prehistoric North America from the Arctic to northern Mexico. The course outlines cultural developments within this region form the peopling of the Americas near the end of the last Ice Age to the arrival of Europeans more than 10,000 years later. The diversification of Native American societies across this time span is examined in relation to social and environmental challenges, including the transformation of hunter-gatherer groups into chiefdoms and complex agricultural societies. **Cross Listings**: ANTHRO 384.

GEOG 460 Transportation Geography Credits: 3
Relation between transportation and spatial organization, selected analytical models dealing with traffic demand, network configuration, and allocation of transport facilities; application to specific problem areas including commuting. Seminar with discussions of briefs and term paper.

GEOG 496 Geography Internship Credits: 1-6
Students obtain directed practical experience working with non-profits, governments, or private enterprises. Duties will vary based on contractual agreement between the student, host organization, and the professor. **Prerequisites**: Junior standing or higher.

GEOG 499WI Geography Seminar Credits: 3
Students critique geographic research and prepare a paper and an oral presentation on an approved topic. **Prerequisites**: Senior standing, RooWriter.

**Geology (GEOLOGY)**

**Courses**

GEOLOGY 220 General Geology Credits: 3
Geology is the study of Earth, the materials that make up the Earth, and the forces and processes that build and shape the continents, oceans, and life on Earth. The goal of this course is for students to gain an understanding of the fundamental concepts and scientific principles that underlie the physical, chemical, and biological processes that shape our Earth and to learn to think critically about scientific information and how geologic processes affect us every day. **GEOLOGY 220 - MOTR GEOL 100: Geology**
GEOLOGY 220L General Geology Laboratory Credits: 2
Laboratory and field investigations of principles of the geology designed to complement the topics covered in GEOLOGY 220 through the use of inquiry-based investigations in the laboratory and field.

Co-requisites: GEOLOGY 220.

GEOLOGY 250L Field Methods in Earth and Environmental Science Credits: 3
A field-based course covering basic methods used by earth scientists for environmental, geographic, and geologic investigations. Students will collect field data at off-campus sites, conduct periodic monitoring, and analyze samples using departmental and personal instrumentation. Students will work on collaborative projects and will present their results. Class will meet weekly for four hours in the field.
Prerequisites: ENV-SCI 110R (or GEOLOGY 220), ENV-SCI 110L (or GEOLOGY 220L).

GEOLOGY 251L Field Methods in Earth and Environmental Science: Off-Campus Credits: 3
This course will provide students with an introductory, inquiry-based learning experience that focuses on the application of field methods for understanding surface and subsurface earth processes and environmental issues. Students will collect field data at off-campus sites, conduct periodic monitoring, and analyze samples using departmental instrumentation. Students will work on collaborative projects and will present their results. Class will meet at an off campus location during break (added cost) plus have four on campus meetings. Prerequisites: GEOLOGY 220 (or ENV-SCI 110R), GEOLOGY 220L (or ENV-SCI 110L).

GEOLOGY 303 Weather and Climate Credits: 4
Overview of weather processes and the main components of the climate system. Emphasis is on the physical basis of daily weather patterns, seasonal climate variability and longer-term climate change at local, regional, and global scales. The theme throughout the course will be the importance of weather and climate as major drivers of environmental change.

Prerequisites: ENV-SCI 110R or GEOLOGY 220.

GEOLOGY 312 Mineralogy Credits: 4
Introduction to crystallography, mineral chemistry and the systematic classification and identification of minerals. Three hour lecture and discussion with two hours laboratory a week.
Prerequisites: CHEM 212R, GEOLOGY 220.

GEOLOGY 313 Evolution and the Geologic Record Credits: 4
An introduction to the history of life by studying the geologic record. Students will examine major features of the fossil record including: invertebrates, vertebrates, and plants. Students explore what the fossil record tells us about geologic time, evolution, past environments and distributions of organisms. Three hours of lecture and two hours of laboratory a week. The course will include field trips to collect and interpret fossils and paleoenvironments.

GEOLOGY 314 Principles of Geomorphology Credits: 4
Explores the processes that shape the earth’s surface. Focuses on the development and description of fluvial, glacial, eolian, and coastal landforms. Studies the influence of tectonic and climatic factors. Three hours lecture and two hours lab per week. Field trip.
Prerequisites: ENV-SCI 110R (or GEOLOGY 220).

GEOLOGY 321 Climate Change Impact Assessment and Policy Response Credits: 3
This course introduces how scientists assess observed climate change and predict future climate change. Lectures, discussions, problem sets, and term papers help students explore interactions among climate change, human activities and policy responses. It helps students achieve an appreciation for the role of accurate scientific information as foundation for shaping political agreements and policies on climate change.
Prerequisites: ENV-SCI 110R.

GEOLOGY 325 Sedimentology/Stratigraphy Credits: 4
Study of sedimentary rocks with special emphasis given to hand specimen identification based on mineral composition and textural features. Characteristics of sediments, transportation and environment of sediment deposition. Principles of stratigraphy, facies analysis and interpretation. Measurement and description of stratified rocks. Three hours lecture and two hours lab per week. Field trips.
Prerequisites: GEOLOGY 220.

GEOLOGY 326CZ Archaeology of Ancient Disasters Credits: 3
Remarkable human achievements are revealed by archaeological research, but the human past was frequently shaped as well by disasters of natural and human origin. Drawing on case studies that include data from the geosciences, archaeological excavations, and historical sources, this class examines how earth processes, the biosphere, and human cultural behavior were all sources of catastrophe. We begin with the geological context of disaster, including earthquakes, volcanic eruptions, climate change, and soil depletion. Next, we examine how ancient societies responded to disease, an ever present threat from the biological environment. Finally, we look at how ancient human groups were changed by stresses of cultural origin, including overpopulation, depletion of vital resources, and warfare. The study of ancient disasters not only gives us a wider understanding of human history, it may offer lessons for coping with future catastrophes.
GEOLOGY 335 Introduction to Waste Management Credits: 3
Prerequisites: ENV-SCI 110R, GEOG 150, GEOLOGY 220.

GEOLOGY 342 Igneous and Metamorphic Petrology Credits: 4
Introduction to the principles governing the classification, occurrence and origins of igneous and metamorphic rocks. Three hours lecture and discussion with two hours laboratory a week.
Prerequisites: GEOLOGY 312.

GEOLOGY 350 Earth Structures and Tectonics Credits: 4
This course is designed to teach students the basic techniques and approaches for problem solving in structural geology. The course will cover the fundamentals of crustal deformation and discuss joints, faulted and folded rocks in their plate tectonic context. Two hours of lectures and three hours of laboratory a week. Course will include local field trips and one weekend field trip.
Prerequisites: GEOLOGY 220, PHYSICS 210 (or PHYSICS 240).

GEOLOGY 370R Hydrogeology Credits: 3
Geology and hydrologic factors controlling the occurrence, movement, quality, recovery and development of water supply and distribution. Problems relating to urbanization of flood plains.

GEOLOGY 384 Frauds, Myths and Mysteries in Archaeology Credits: 3
Using archaeological hoaxes, myths, and mysteries from around the world – including local and regional examples - students will use science to make good judgments about information they receive in today’s world. This course will demonstrate how science approaches questions about human antiquity and will show where pseudoscience falls short. (Lecture/on-line asynchronous).
Cross Listings: CLASSICS 384.

GEOLOGY 398 Geology Midcontinent Field Trip Credit: 1
A study of a selected area of the midcontinent U.S. with emphasis on locations to be visited during a three-day field trip (at the student’s expense). An opportunity to observe and study physical features and collect materials. Several scheduled one-hour meetings in addition to field trip. Lectures, discussion and reading assignments provide a background to place the area covered by the field trip into the overall geologic framework of the Midcontinent U.S. Descriptive report or written examination. Limited enrollment.
Prerequisites: Junior or senior level.

GEOLOGY 407 Archaeological Resources Management Credits: 3
This class examines contemporary issues managing archaeological resources. This class is intended for students seeking work in Cultural Resources Management (CRM); those already working CRM, or student anthropology, environmental studies, geology, geography, public administration and other fields likely to deal with archaeological and historical resources in a research or employment setting. This class does not require a background in archaeology.

GEOLOGY 408 Archaeological Field Survey Methods Credits: 3
This class offers instruction in the basic skills required to conduct field surveys in archaeology and other geosciences disciplines. In the classroom, students learn about the development of archaeology as a scientific discipline and how to recognize some of the basic field data sought by archaeologists. Students learn about mapping and land navigation techniques, The field phase of instruction includes visits to archaeological sites in the region.

GEOLOGY 409 Field School in Archaeology Credits: 1-5
This class offers students an opportunity to attend a field school in archaeology. Students will be taught how to: design archaeological research, set-up excavation, keep a wide range of excavation records, make maps and drawings, take photographs related to excavation problems, identify and receive a broad spectrum if artifact and faunal remains, collect samples for specialized analysis and use a wide range of excavation tools. This course will also introduce students to recording and analyzing excavated materials in the archaeological laboratory. Class size limited to 20 students.

GEOLOGY 411 Mineral Deposits Credits: 3
Distribution, origin and environmental implications of extractable resources including non-metallic deposits, ores, and selected energy resources.

GEOLOGY 416 Understanding and Living with Volcanoes Credits: 3
This course will examine the distribution, tectonic setting, and morphology of a range of volcano types on Earth and a few examples from other planets. Students will study volcanic processes including explosive and passive processes and how we investigate them. This will involve discussion of volcanic hazards and hazard assessment, risk communication, and the challenges of volcanic crises response. The course will also cover how volcanoes impact the local and global economy and Earth’s climate. Recommended preparation: GEOG 314 / GEOLOGY 314 or GEOLOGY 325 or GEOLOGY 342.
Prerequisites: GEOLOGY 220 or ENV-SCI 110R/110L, and GEOG 203 or GEOG 402.
GEOLOGY 434 Hazardous Waste Operations Management Credits: 2
Overview of federal regulations dealing with hazardous waste management, toxicology, hazard communication, site management, air monitoring, operating procedures, and health and safety. The course includes hands-on training on spill control, equipment use and emergency response. Practical training involves physical stress and participants must be in good physical health. This course satisfies OSHA's 40 hour training requirement for hazardous waste personnel.

GEOLOGY 441 Environmental Geophysics Credits: 3
Fundamental theory and near-surface applications of the geophysical methods; (1) seismic refraction, (2) seismic reflection, (3) gravity, and (4) magnetics. Emphasis will be placed on the use of these methods in environmental and engineering investigations, addressing such issues as water resources, contaminant transport, geotechnical properties and archaeological protection. Course will include a field component illustrating application of selected techniques to local environmental problem.

GEOLOGY 446 Petroleum Geology Credits: 3
Study of the origin, concentration, exploration for and recovery of petroleum.
Prerequisites: GEOLOGY 220.

GEOLOGY 456 Field Methods in 3D Imaging of the Environment Credits: 3
This course is designed to teach students techniques to create high-resolution, 3D images of the environment and detailed topographic maps using digital technologies. The class will include instruction on various aerial systems and hand-held photography and the software required for data acquisition, processing, and interpretation.

GEOLOGY 460 Introduction to Geochemistry Credits: 3
Basic principles governing the origin, distribution and migration of the elements and the geochemical cycles operating in the earth's atmosphere, hydrosphere and lithosphere.
Prerequisites: CHEM 212R, GEOLOGY 312.

GEOLOGY 471 Tectonics Credits: 3
A detailed inquiry into plate tectonics and the geophysical and geological data that define the motion of lithospheric plates. Global examples of divergent, convergent, and transform plate boundaries will be studied through lectures, discussions, problem sets, and term papers.
Prerequisites: GEOLOGY 325, GEOLOGY 350.

GEOLOGY 472 Earthquake Geology Credits: 3
A detailed inquiry into the study of present and past earthquakes as they are preserved in the seismological, geophysical, and geologic record. Global examples of earthquakes will be studied through lectures, discussions, problem sets, term papers, field trips and field projects.

GEOLOGY 490 Geology Field Camp Credits: 6
Study and practical involvement in the methods of geological mapping. The six-week course is conducted during the summer, partially in a field camp away from the Kansas City area. Students pay their own travel expenses to and from the field. Participation in the course involves individual mapping in the field area and field reports.

GEOLOGY 498 Undergraduate Field Research Credits: 1-5
The student will collaborate with fellow students and instructors in collection of original field geologic data at a location remote from campus. Field research will be carried out during semester intersessions or summer semesters.

GEOLOGY 499WI Geology Seminar Credits: 3
Students participate in discussions; present formal talks; and prepare written papers on selected topics.
Prerequisites: Senior standing, RooWriter.

German (GERMAN)

Courses
GERMAN 110 Elementary German I Credits: 3
The goals of this course are an ability to speak and to understand simple (spoken) German as well as to read and write simple prose.

GERMAN 120 Elementary German II Credits: 3
Continuation of GERMAN 110.
Prerequisites: GERMAN 110.

GERMAN 211 Second-Year German I Credits: 3
Further development of comprehension and communicative skills in the language. Readings of moderate difficulty and grammar review. Practice in writing. The goal is attainment of intermediate proficiency in the language.
Prerequisites: GERMAN 120.

GERMAN 221 Second-Year German II Credits: 3
Continuation of GERMAN 211.
Prerequisites: GERMAN 211.
GERMAN 280 Special Intermediate German Topics I Credits: 2-4
Instruction of German on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit.
Prerequisites: GERMAN 110, GERMAN 120.

GERMAN 290 Special Intermediate German Topics II Credits: 2-4
Continuation of GERMAN 280. May not be repeated for credit.
Prerequisites: GERMAN 280.

GERMAN 300CZ The Other Europe Credits: 3
This course addresses a crucial, if often overlooked arena of history and culture: East-Central Europe. Open to all undergraduates, this course will explore the challenges of geopolitics, modernization, Western influences, multi-ethnic societies, and collective memory.

GERMAN 301 Introduction to Literary Studies Credits: 3
An introduction to the study of the different genres of German literature and techniques of criticism. Readings include representative works of major authors from various periods. Strongly recommended for all majors. To be taken before or concurrently with other literature courses. Taught in German.

GERMAN 305 Current Events in Germany Credits: 3
This course focuses on contemporary issues in Germany such as politics, the economy, foreign affairs, culture, science, education, etc. Various television news programs, news magazines, and newspapers will be the primary sources of information in this course.
Prerequisites: GERMAN 221.

GERMAN 306 Aspects Of Contemporary German Culture (Conducted In German) Credits: 3
The goal of the course is to familiarize the student with various aspects of contemporary culture in the German-speaking countries (Germany, Switzerland, Austria). The class will be structured around lectures, guest lectures, audiovisual presentations and discussions, emphasizing crosscultural comparisons.

GERMAN 307 From the Middle Ages to the Baroque Credits: 3
The goal of this course is to introduce students to the history of German literature from the Middle Ages to the Baroque, emphasizing the historical and social context and the development of various genres.
Prerequisites: GERMAN 221.

GERMAN 308 From the Enlightenment Through the 19th Century Credits: 3
The goal of this course is to introduce students to the history of German literature from the Enlightenment through the 19th century, emphasizing the historical and social context and the development of various genres.
Prerequisites: GERMAN 221.

GERMAN 310 Classical Period Of German Literature Credits: 3
Readings in the late 18th and 19th centuries with emphasis on Goethe and Schiller.

GERMAN 313 CC: Intro to German Studies Credits: 3
This cluster course explores major themes in German culture, history, and philosophy from the medieval period to the present. Concentrating on primary sources in English translation also introduces students to the methodologies of German Studies. German language ability not required, but class can count toward German major for students who do the written work in German.
Prerequisites: ENGLISH 110 (or HISTORY 206).

GERMAN 314CC Weimar Culture: Gender and Modernity in Central Europe Credits: 3
A course concerned with the culture of Weimar Germany (1919-1933), a period of crucial importance not only for German history but also for European and world history. Examines how film, advertising, theater set design, painting, photography and other media sought to re-imagine gender identities, foster new cultural forms, and transform economic relations during the Roaring Twenties in Germany.

GERMAN 315 Intermediate Conversation and Composition I Credits: 3
Practice in speaking and writing German; emphasis on idiomatic usage. Required for major.
Prerequisites: GERMAN 221.

GERMAN 325 Intermediate Conversation and Composition II Credits: 3
Continuation of GERMAN 315. Required for major.
Prerequisites: GERMAN 315.

GERMAN 335 Commercial German Credits: 3
The class covers business practices and correspondence in the German language; special vocabulary of business, economics, banking, and their contextualization in the European Union. It will also include refinement of grammatical and stylistic skills.
Prerequisites: GERMAN 221.
GERMAN 340 Society and Literature in 20th-Century Germany Credits: 3
Conducted in English with English translations. Literary currents and figures in 20th-century Germany against their social and political background, from the turn of the century to the postwar period. Reading and discussion of major works by such authors as Thomas Mann, Hesse, Kafka, Rilke, Brecht, Boll, Grass, Hochhuth and Weiss. Open to students of all disciplines. Not for major credit in German.

GERMAN 341 German Film Credits: 3
This course introduces students to the important contributions of German films to the development of movies as a unique literary art form. The class will cover important terms and concepts in film theory, the specifically German context of film, and important themes and periods in German film history. Taught in English with subtitled films.

GERMAN 342 Contemporary German Film 1980 Credits: 3
This course will introduce students to the important role film has played in the public discourse about German society immediately prior to reunification in the 1980s and during the turbulent social adjustments in unified Germany after 1990. Lectures and readings in the first week will cover important terms and concepts in film theory as well as provide background for the specific German context of film history. The class will treat film in the 1980s in terms of continuations of and liberations from the New German Cinema of the 1970s in West Germany, and in the context of state censorship and sponsorship of film in East Germany. We will approach movies from the 1990s and 2000s by accessing their depiction of historical and contemporary Germany through the lens of reunification, and we will examine issues of German identity especially as contextualized by reunification and multiculturalism. The course will be taught in English with subtitled films.

Prerequisites: GERMAN 315.

GERMAN 343 Eastern European Film In Context Credits: 3
The course covers themes in film from 1945 to present between the Baltic and the Balkans, including war, socialism, literary nationalisms, irony, and everyday life. The formal characteristics of film are also discussed.

GERMAN 344 Scandinavian Film Credits: 3
The course covers film in Scandinavia, from silent to contemporary movies. The relation of Scandinavian film to literature, art, social and political movements, as well as the economy will be discussed.

GERMAN 380 Special Topics Credits: 1-3
Treatment of a particular genre or area of literature or language normally not offered through regular courses. May be repeated for credit when the topic changes.

GERMAN 401 Bertolt Brecht Credits: 3
Covers major works by Brecht in their social and historical context. May focus on a specific genre or survey parts or all of Brecht's career. Discussions and readings in German.

Prerequisites: GERMAN 315.

GERMAN 410 Music in German Culture Credits: 3
This course examines the role of music in German national self-definition from late 18th century to the present. The political and ideological role of music will be examined from 1789 to National Socialism, the GDR and reunification, including the gendering of music as feminine in Romanticism, and modernism. Music as it relates to the public and private, as well as collective and individual experiences will also be explored. Different genres and media will be discussed, from opera, art song, and cabaret to ballads and film; literary works thematizing music will be read.

Prerequisites: GERMAN 315.

GERMAN 411 Romanticism Credits: 3
Main currents and authors from the Romantic school, 1780-1820.

GERMAN 412 The German Novelle Credits: 3
An examination of representative novellen of the 19th and 20th centuries. Special emphasis on the study of form.

GERMAN 414 German Lyric Poetry Credits: 3
Lyric poetry from its beginnings to the present. Emphasis on 19th and 20th centuries.

GERMAN 415 Advanced Conversation and Composition I Credits: 3
Practice in speaking and writing German, with attention to the elements of style. Continued in GERMAN 425. First semester required of all majors and second semester recommended. Both semesters required of prospective high school teachers. Either or both semesters may be repeated. No more than six hours of credit may be applied toward a degree.

Prerequisites: GERMAN 325.

GERMAN 420 German Enlightenment Drama Credits: 3
This course covers plays, dramatic theories and theater history in the German-speaking countries 1730-1780. Emphasis will be placed on the theater as a bourgeois instrument of public discourse.

Prerequisites: GERMAN 315.

GERMAN 421 19Th-Century Drama Credits: 3
Kleist through Hauptmann.
GERMAN 422 Contemporary Drama Credits: 3
This course will provide students with a survey of the most important dramatic movements of the 20th century. It will proceed chronologically through Expressionism, the Brechtian theatre of alienation, documentary theater and post-modernist theater.

Prerequisites: GERMAN 221.

GERMAN 425 Advanced Conversation and Composition II Credits: 3
Continuation of GERMAN 415. Required for teacher certification in German.

Prerequisites: GERMAN 415.

GERMAN 426 20th-Century German Literature Credits: 3
Selected readings from Neo-Romanticism to the present.

GERMAN 453 Women’s Voices in Germany and Austria Credits: 3
The course focuses on the role of women in German and Austrian society from the Roman era to the present, primarily through the examination of literary texts by women.

Prerequisites: GERMAN 221.

GERMAN 480 Special Topics Credits: 1-3
Each time this course is offered a particular author, genre or area of literature will be treated. Topics will be announced in advance. May be repeated for credit when the topic changes.

GERMAN 481 East German (DEFA) Film Credits: 3
The course covers East German film from 1945-1989. Differences between films produced in East Germany and Soviet and other Eastern European cinemas will be discussed. Historical, political and cultural influences on film will be analyzed through multiple genres including popular, artistic, pedagogical and critical.

GERMAN 490 Special Readings Credits: 1-3
Intensive readings in a field or literary figure to be selected by the student in consultation with the instructor. Available only to advanced students of German when students cannot take regularly scheduled courses.

Prerequisites: 3.0 GPA.

GERMAN 499 Senior Seminar (Capstone) Credits: 3
Required for major. Covers seminal works of German literature in their historical and cultural context. Course content varies, but will include such elements as geography, politics, folklore, history of the language, architecture, art and music.

Prerequisites: 21 hours beyond first year.

Greek (GREEK)

Courses

GREEK 110 Elementary Ancient Greek I Credits: 3
The goal of this course is an ability to read classical Greek. The student will be introduced to the fundamentals of grammar and the basic vocabulary of the language and will do exercises in the reading and writing of sentences. Continuous passages of Greek will be presented by the end of the semester.

GREEK 120 Elementary Ancient Greek II Credits: 3
A continuation of the study of the grammar and vocabulary of classical Greek, with an increasing emphasis on developing skills in translation. By the middle of the semester students will be introduced to selections from Plato, Herodotus or Homer.

Prerequisites: GREEK 110.

GREEK 211 Intermediate Ancient Greek I Credits: 3
Instruction of Greek on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit.

Prerequisites: GREEK 120.

GREEK 221 Intermediate Ancient Greek II Credits: 3
Continuation of GREEK 211. May not be repeated for credit.

Prerequisites: GREEK 211.

GREEK 301 Herodotus Credits: 3
Selected readings in Ancient Greek from Herodotus’ Histories.

Prerequisites: GREEK 211.

GREEK 302 Homer Credits: 3
Selected readings in Ancient Greek from Homer’s Iliad or Odyssey.

Prerequisites: GREEK 211.
GREEK 310 Selected Readings in Ancient Greek and Rhetoric Credits: 3
Selected readings in Ancient Greek from works by Plato, Aristotle, or the Attic Orators.
**Prerequisites:** GREEK 211.

GREEK 311 Drama and Lyric Poetry Credits: 3
Selected readings in Ancient Greek from plays by Aeschylus, Sophocles, Euripides, or the Lyric Poets.
**Prerequisites:** GREEK 211.

GREEK 312 Greek Narrative Prose Credits: 3
Selected readings in Ancient Greek from Herodotus, Thucydides, Xenophon, Lucian, etc.
**Prerequisites:** GREEK 211.

GREEK 490 Special Readings in Greek Credits: 1-3
Intensive readings in period or genre or literary figure to be selected by the student in consultation with the instructor. Available only to advanced Greek students.

**Guitar (GUITAR)**

**Courses**

**GUITAR 100A Preparatory Applied Study** Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

**GUITAR 100B Applied Study of a Second Instrument** Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

**GUITAR 100C Applied Study for the Non-Music Major** Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

**GUITAR 101 Freshman Guitar I** Credits: 2-4
**GUITAR 101J Freshman Guitar I (Jazz)** Credits: 2-4
**GUITAR 102 Freshman Guitar II** Credits: 2-4
**GUITAR 102J Freshman Guitar II (Jazz)** Credits: 2-4
**GUITAR 201 Sophomore Guitar I** Credits: 2-4
**GUITAR 201J Sophomore Guitar I (Jazz)** Credits: 2-4
**GUITAR 202 Sophomore Guitar II** Credits: 2-4
**GUITAR 202J Sophomore Guitar II (Jazz)** Credits: 2-4
**GUITAR 300 Studio Class** Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
**Co-requisites:** Enrollment in lessons.

**Cross Listings:** GUITAR 5300.

**GUITAR 301 Junior Guitar I** Credits: 2-4
**GUITAR 301J Junior Guitar I (Jazz)** Credits: 4
**GUITAR 302 Junior Guitar II** Credits: 2-4
**GUITAR 302J Junior Guitar II (Jazz)** Credits: 4
**GUITAR 401 Senior Guitar I** Credits: 2-4
**GUITAR 401J Senior Guitar I (Jazz)** Credits: 4
**GUITAR 402 Senior Guitar II** Credits: 2-4
**GUITAR 402J Senior Guitar II (Jazz)** Credits: 4

**Harpsichord (HRPCHD)**

**Courses**

**HRPCHD 100A Preparatory Applied Study** Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.
HRPCHD 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

HRPCHD 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

HRPCHD 101 Freshman Harpsichord I Credits: 2-4
HRPCHD 102 Freshman Harpsichord II Credits: 2-4
HRPCHD 201 Sophomore Harpsichord I Credits: 2-4
HRPCHD 301 Junior Harpsichord I Credits: 2-4
HRPCHD 302 Junior Harpsichord II Credits: 2-4
HRPCHD 401 Senior Harpsichord I Credits: 2-4
HRPCHD 402 Senior Harpsichord II Credits: 2-4

Health Sciences (HLSC)

Courses

HLSC 100 Student Success Strategies Credit: 1
Topics will include setting goals for academic success, anticipating obstacles, problem solving solutions, and time management. Students will practice improving their listening, note-taking, and reading skills. They will practice communication, public speaking, and writing skills. Students will begin self-evaluation strategies to learn more about their motivation for successfully completing their academic program.
Prerequisites: Admission into the BHS program

HLSC 101 Introduction to Health Sciences Credits: 3
This course introduces students to career options in health sciences. Students will explore basic concepts related to understanding one’s role and scope of practice, professional responsibilities, and education and credentialing requirements for various careers in health. The course will explore basic concepts required by any health professional including history, safety, ethics, interpersonal skills, general well-being, as well as special skills and aptitudes required in various health career clusters. Students will explore health career paths in medical, government, business, non-profit, and many other sectors. Additionally, students will explore various campus resources focused on student success strategies.

HLSC 110 Personal Wellness Credits: 3
This course presents an overview of health behaviors and actions needed to achieve a combination of physical, mental, and social well-being through intelligent lifestyle choices. Effective strategies for staying healthy and improving one’s health will be explored. Elements of stress management, preservation of physical and mental well-being, personal hygiene and strong social relationships will be discussed.

HLSC 120 Anatomy & Physiology I Credits: 4
This course examines the structure and function of the human body from the molecular to the organism level as they interact among all body systems across the life span. Instructors also attempt to correlate course materials with the clinical aspects of the application of physiological knowledge. Co-requisite laboratory exercises provide practical application of theoretical concepts. In this first term of two-term course, molecular biology, biochemistry, cellular biology, and histology are studied as well as the integumentary, musculoskeletal, and nervous systems.

HLSC 125 Medical Terminology Credit: 1
This course is designed to provide the student with a foundation in medical terminology and the components of health records. Course content will include how medical terms are formed; how medical terms are applied to organs, body systems and pathological conditions; how common medical abbreviations are used; and how health records are organized and compiled.

HLSC 160 Anatomy and Physiology II Credits: 4
This course is a continuation of HLSC 120. Co-requisite laboratory exercises provide practical application of theoretical concepts. Physiologic systems including endocrine, cardiovascular, immune, respiratory, digestive, renal, and reproductive are studied as well as embroyology and genetics.
Prerequisites: HLSC 120 (or NURSE 120).

HLSC 200 First Aid / CPR Credit: 1
This course is designed to certify students with the American Heart Association (AHA) in Basic Life Saving for Healthcare Providers and bloodborne pathogens. Students will be exposed to critical concepts of high quality Cardiopulmonary Resuscitation (CPR), the AHA’s Chain of Survival, and 1 and 2 rescuer CPR and Automatic External Defibrillator (AED) for adult, child and infants. Bag-mask technique, rescue breathing, relief of choking will be covered. Adult and pediatric first aid basics, medical emergencies, injury emergencies, and environmental emergencies will be covered. The course will include information on bloodborne pathogens (protection, action, proper cleaning and reporting).
HLSC 230 Health Issues in Aging Credits: 3
This course focuses on promotion and maintenance of the health and well-being of the older adult population. Current trends and needs of the ever changing and diversifying older adult population are discussed. The physiological and psychological domains, socio-cultural influences, legal and ethical issues, and health care resources pertaining to older adults in relationship to their health and quality of life are explored. Assessments, problems and strengths, interventions, and outcomes specific to the older adult population are discussed. Opportunities are provided for interaction with the older adult population through service learning. **Prerequisites:** Admission into the Bachelor of Health Sciences program or admission into the Minor in Gerontology.

HLSC 252 Human Growth and Development Credits: 3
This course provides a basic introduction to the theory for human growth and development across the life span. Emphasis is placed upon the biological and the psychosocial aspects of growth and development. Content is organized in a modified chronological order dividing information into major stages of growth and development across the lifespan. **HLSC 252 - MOTR PSYC 200: Lifespan Human Development**

HLSC 255 Spanish for Health Care Pre-Professionals Credits: 3
This course focuses on conversational Spanish, medical terminology in Spanish, and written/read Spanish. This course will provide the student with basic knowledge that will allow communication with clients who speak/read/write Spanish. This is a fast paced course and will require practice of the language outside of the classroom in order to master the material presented. **Prerequisites:** SPANISH 110.

HLSC 300 Diversity in Health Credits: 3
This course will explore social determinants of health, i.e. how social, cultural, political, historical, and economic influences shape the individual's own values, beliefs, and behaviors. This course expands students' basic knowledge of cultural diversity to provide special focus on health disparities among marginalized populations. Students will examine diversity by exploring health inequities related to race and ethnicity, immigration status, disabilities, gender, access, poverty, sexual identity, and veteran status. The course includes experiential learning with organizations focused on reducing health disparities. **Prerequisites:** HLSC 101 (BHS Students); PBHL 158 (PBHL Students).

HLSC 310 Healthcare Systems Credits: 3
The course is designed to provide a description and overview of the organization, financing, and delivery of healthcare in the United States. The historical background and the impact of socio-political, economic, and cultural influences will be explored. The purpose of the course is to provide a framework of understanding of the healthcare system through examination of public and private sectors, market competition, and government regulation. Major issues currently facing the healthcare system will be examined. **Prerequisite:** HLSC 101 (or co-requisite, BHS Students); PBHL 158 (or co-requisite, PBHL Students).

HLSC 315 Health Literacy Credit: 1
In this course participants will explore the fundamentals of health literacy and demonstrate the impact on health outcomes. Students will be introduced to tools that health care professionals can use to assess the health literacy of their patients/clients. Tools and resources to provide health information at the correct health literacy level will be presented. Students will explore interventions that can increase an individual's health literacy. **HLSC 323 Bluford Healthcare Leadership Institute Phase I Credits: 3**
This course is a leadership development program designed to expose students to dynamic leadership principles while analyzing challenging issues in today's healthcare landscape with leading national and local executives in the field. Topics covered include social determinants of health, delivery of healthcare in the U.S., for profit and not for profit healthcare systems, public health, public policy, and health law. The course includes site trips to an urban core safety net hospital and its behavioral health department, a community health center, and a healthcare informational technology corporation among others. **Prerequisites:** Acceptance into Bluford program.

HLSC 325 Human Sexuality Credits: 3
This course is designed to introduce students to the field of human sexuality. Course content will include sexual anatomy and physiology, sexuality across a life-span, sexually transmitted infections, contraception, pregnancy and childbirth, sexual orientation, love and relationships, sexual therapy, sex education, gender identity and gender roles and social and legal issues related to sex. Recommended preparation: HLSC 110. **HLSC 345 Quantitative Analysis in the Health Sciences Credits: 3**
This course focuses upon the skills required for the utilization of scientific findings in evidence-based care. The conceptual basis of descriptive and inferential statistics found in the properties of the normal distribution, comprise the core of these skills. Using the normal distribution as a structure for understanding descriptive and inferential procedures, the course presents information necessary to the selection, computation and interpretation of basic statistics relevant to evidence based-care in the health sciences. Discussions of variables, measurement and tabular and graphic presentation of data precede the development of computation skills. **Prerequisites:** MATH 110 or MATH 116 or higher level math course.
HLSC 403A Comparative Weight Loss I Credit: 1
This course explores the bio/psycho/social aspects of weight gain and obesity and compares common weight loss methods according to risk, benefits, and long term and short term implications. Correlations between lifestyle issues such as diet, sleep, stress, and exercise will be explored. Specific topics that will be addressed include risks of overweight/obesity; common psychological issues for the overweight/obese; societal perceptions and barriers for overweight/obese individuals. This course consists of one hour if didactic work with one module per week for four weeks.

Co-requisites: HLSC 403A.

HLSC 403C Comparative Weight Loss 3 Credit: 1
This course explores the bio/psycho/social aspects of weight gain and obesity and compares common weight loss methods according to risk, benefits, and long term and short term implications. Comparison of pharmacologic weight loss options ad their efficacy/risks; non-prescription medications/nutraceuticals for weight loss and their efficacy/risks; and bariatric surgeries and efficacy/risks. This course consists of one hour of didactic work with one module per week for four weeks.

Co-requisites: HLSC 403A.

HLSC 404 Introduction to Social Justice Credit: 1
This course is designed to increase a student's knowledge regarding personal and social biases based on race, ethnicity, culture, religion, age, sex, sexual orientation, social and economic status, political ideology, disability and how these entities contribute to social injustice. The focus of the course will center on issues involving diversity, prejudice and oppression that impacts social justice. During the course, students will be introduced to tools for developing social justice literacy in order to take action towards establishing a more just society.

HLSC 408 Gender, Health and Development in Senegal Credits: 3
This course examines women's economic empowerment, health education initiatives, philanthropy, and social entrepreneurship in West Africa and Senegal in particular. In the main city of Dakar we will visit indigenous and global nonprofits to study their policies and processes. The culture, both urban and rural, will be experienced in order to provide a unique perspective on the Senegalese and their culture.

Prerequisites: Junior or Senior Level standing - must meet requirements established by study abroad office.

HLSC 410 Epidemiology Credits: 3
This course is an introduction to epidemiology with an emphasis on applications in public health. Students will learn basic principles of epidemiology, including the relationship of simple statistics to epidemiology and public health, methods of disease investigation, epidemiological study designs and their uses and measures of effects. Through the course, students will be able to apply measures of disease incidence and prevalence, and explain the uses of screening tests and criteria for their evaluation, including measures of validity. The class will explore epidemiology in environmental health and social sciences.

Prerequisites: HLSC 101 (BHS Students), PBHL 158 (PBHL Students), HLSC 345 or STAT 235 or equivalent upper-level statistics course.

HLSC 417 Information Systems and Technology for Improved Health Care Credits: 3
This course provides a basic introduction to health information technology across health care settings. Students will acquire an understanding of key concepts associated with health informatics and network models, systems and management strategies, health information strategic planning, clinical and public health application, data retrieval and analytics, public policy, research, and one's professional responsibility to protect electronic health care records.

HLSC 419 Introduction to Social Epidemiology Credit: 1
This course is designed to increase a student's knowledge of Social Epidemiology, which is the branch of epidemiology that studies the social determinants of health. Social processes will be explored that center on social networks, social support, social capital, social cohesion, and contributing ecological factors that influence health and wellness. Students will discover how social relationships and institutions, such as familial relationships, group culture, policies, and global economic forces, promote or undermine the health of populations. Students will also explore how social inequity indicators involving income, health insurance, and access to care inter-relate and often lead to negative health outcomes.

HLSC 423 Bluford Healthcare Leadership Institute Phase II Credits: 3
This course provides students opportunities to build upon and apply the healthcare knowledge learned during the first phase of the Bluford Healthcare Leadership Institute in an internship in a notable healthcare organization. Throughout the internship, students will be mentored by members of the organization's leadership team and be afforded unique opportunities to learn effective leadership practices, skills, and characteristics. Students will complete an internship project and at the conclusion of the internship will deliver their findings to the organization's leadership.

Prerequisites: HLSC 323.
HLSC 430 Health Program Management Credits: 3
This course is designed to acquaint students with assessment, planning, implementation, and evaluation of health programs. Issues of health financing, health policy, health delivery, and population health will be explored. The course provides a broad introduction to key concepts in health program management, common issues, evidence-based tools, and usable strategies, regardless of the health settings. Vocabulary relevant to policy makers, managers, administrators, and consumers will be studied. Students will develop mock health programs using provided outlines and budgetary restrictions, while considering human resource restraints, climate, relevance of health issue, and readiness for change.

**Prerequisites:** HLSC 101 (BHS Students), PBHL 158 (PBHL Students), and HLSC 310.

HLSC 440 Policy and Ethics in Health Credits: 3
This course distinguishes biomedical ethics from public health ethics, highlighting the driving principle of justice in public health policy. Historical and present ethical issues will be explored within a variety of health based organizations and settings. The relationship of how ethics drives policy decisions and improves health outcomes will be discussed. The course will also examine how health policy is created in relationship to core ethical theories and public health justifications.

**Prerequisites:** HLSC 101 and HLSC 300 (BHS Students); PBHL 158 and HLSC 300 (PBHL Majors); PBHL 158 (PBHL Minors).

HLSC 450 Urban Health Credits: 3
This course focuses on the unique health needs and outcomes of individuals and communities located within an urban core. Included in the course, are the specific ways in which health interventions can be delivered to urban populations to promote better health outcomes and quality of life. The course provides information on urban characteristics including crowding, poverty and crime in exacerbating the health and wellness needs of this historically underserved community.

**Prerequisites:** HLSC 101 (BHS Students), PBHL 158 (PBHL Students), and HLSC 300.

HLSC 460 Global Health Credits: 3
This course discusses the complexity of health in a global context. It is designed as an overview of the biological, social and environmental contributors to health and diseases in populations around the world. Course content will include case studies of various global organizational structures and systems relative to population health, selected infectious diseases, nutritional deficiencies and health effects of environmental change.

**Prerequisites:** HLSC 101 (BHS Students), PBHL 158 (PBHL Students), HLSC 300.

HLSC 470 Technology, Marketing and Media in Health Credits: 3
This course will focus on past, present, and future trends in health marketing and messaging. Technology’s role in marketing health will be explored. Marketing principles will be used to evaluate strategies to promote health behavior change and social policy. Course content will link current trends in consumer health and how these trends are marketed to the public. Examples include mobile apps and devices, personal health data collection, health data storage, and health risk assessment tools. Students will discuss the philosophical, social and legal issues in the use and abuse of health technology, health marketing, and health in the media.

**Prerequisites:** HLSC 101 (BHS Students), PBHL 158 (PBHL Students), HLSC 440 (or co-requisite).

HLSC 476 Scientific Inquiry Credits: 3
This course focuses upon the development of inquiry skills necessary to identify relevant research-based literature and apply findings from research to practice. Students will develop an understanding of basic research concepts and evidence based practice in addition to skills in finding, appraising, and using health related literature.

**Prerequisites:** HLSC 345 or NURSE 345, STAT 235 (or equivalent upper-level statistics course).

HLSC 480 Leadership and Management in Health Professions Credits: 3
This course will provide the student with a theoretical foundation of leadership and management in health professions. The principles of authority, power, politics, decision making, and influence will be explored. Organizational philosophies will be examined within the context of current health issues. The leadership skills of negotiation, delegation, conflict resolution, coaching and mentoring will be discussed, as related to health professions. The role of communication will be examined across organization systems. The effect on gender and cultural diversity on communication will be discussed.

**Prerequisites:** HLSC 101 (BHS Students), PBHL 158 (PBHL Students), HLSC 300.

HLSC 490 Special Topics Credits: 1-9
A course of study in a special area of interest in health sciences under individual faculty direction.

HLSC 492 Health Sciences Specialty Course Credits: 3
This course provides students an opportunity to develop advanced knowledge and skills in health sciences. Concepts and topics covered throughout the course of the Bachelor of Health Sciences program will be revisited and practiced through a variety of applied assignments and experiences. Students will integrate examples and case studies from their Health Sciences Internship settings into the course.

**Prerequisites:** All required HLSC courses, student in final semester of senior year.

**Co-requisites:** HLSC 494.
HLSC 494 Health Science Internship Credits: 6
This course provides an experience-based internship for the senior student. Depending upon the health professions career selected, the student will complete a service learning, research, or problem-based experience under the guidance of a site supervisor within the agency or organization that is mutually agreed upon.
Prerequisites: All required HLSC courses, student in final semester of senior year.

Co-requisites: HLSC 492.

History (HISTORY)

Courses
HISTORY 101 U.S. History to 1877 Credits: 3
This course offers a broad survey of American history up to 1877.
HISTORY 101 - MOTR HIST 101: American History I

HISTORY 102 U.S. History Since 1877 Credits: 3
This course covers American history from the end of Reconstruction to the present.
HISTORY 102 - MOTR HIST 102: American History II

HISTORY 201 European History to 1600 Credits: 3
This course surveys the political, social and cultural history of Europe from ancient times to 1600. Beginning with a brief description of the riverine civilizations of the ancient Near East, the course then examines the political and cultural evolution of classical Greco-Roman civilization, the medieval world, the rise of the national state, and the essential characteristics of the eras of the Renaissance and Reformation.
HISTORY 201 - MOTR WCIV 101: Western Civilization I

HISTORY 202 European History since 1600 Credits: 3
This course surveys the political, economic, social, cultural history of Europe from about 1600 to the present. Emphasis is given to themes of continuity and change in European culture through the experience of political, scientific and industrial revolutions, conservative reactions, liberal reforms, nation building, imperialism, two world wars, fascism, communism and the Cold War.
HISTORY 202 - MOTR WCIV 102: Western Civilization II

HISTORY 206 World History To 1450 Credits: 3
This course surveys the cultural, social, economic, and political history of the world to 1450. It studies the development of civilizations in isolation as well as the origins, nature, and consequences of global forms of interaction and exchange.
HISTORY 206 - MOTR HIST 201: World History I

HISTORY 208 World History since 1450 Credits: 3
This course surveys the social, economic, political history of the world from 1450 to the present. It studies the development of civilizations in isolation as well as the origins, nature, and consequences of global forms of interaction and exchange.
HISTORY 208 - MOTR HIST 202: World History II

HISTORY 213 Researching Kansas City Credits: 3
Researching Kansas City is an interdisciplinary undergraduate research course open to honors and other high-achieving students. It will introduce students to scholarly research and analysis through the exploration of important issues of the past and present in Kansas City.
Prerequisite: Honors Program Student.

HISTORY 215 Getting High: Alcohol & Drugs in American History Credits: 3
This class will investigate historical transformations in how American society has defined and responded to problematic drinking and drug use. The class will analyze what controversies surrounding various forms of intoxication indicate about the nature of American society and culture.
HISTORY 300B Special Studies In History Credits: 1-3
HISTORY 300BB Special Studies in History Credits: 1-3
HISTORY 300BL Special Studies In History Credits: 1-3
HISTORY 300C Special Studies Credits: 1-3
HISTORY 300D Special Studies Credits: 1-3
HISTORY 300F Special Studies Credits: 1-3
HISTORY 300G Special Studies Credits: 1-3
HISTORY 300H Special Studies Credits: 1-3
HISTORY 300J Special Studies Credits: 1-3
HISTORY 300K Special Studies History Credits: 1-3
HISTORY 300L Special Studies Credits: 1-3
HISTORY 300MC Special Studies Credits: 1-3
HISTORY 300MM Special Studies Credits: 1-3
HISTORY 300P Special Studies Credits: 1-3
HISTORY 300R Special Studies Credits: 1-3
HISTORY 300RA Special Studies Credits: 1-3
HISTORY 300RB Special Studies Credits: 1-3
HISTORY 300RH Special Studies Credits: 1-3
HISTORY 300SS Special Studies Credits: 1-3
HISTORY 300W Special Studies History Credits: 1-3
HISTORY 300WY Decade of Dissent: The 1960s Credits: 3

The social movements and conflicts that developed during the 1960s continue to define American culture. Questions of racial and gender equity, a greater willingness to challenge authority, concerns about the environment, and a new openness about issues of sexuality all developed during the sixties and remain as arenas of debate today. This course will examine the origins, contexts, and major themes of these social and cultural movements.

HISTORY 301WI Historiography and Method Credits: 3
This basic course is required of all history majors at the beginning of the junior year. Content includes: 1) what history is; 2) its value and usefulness; 3) the diversity of our fields, approaches, and methods; and 4) the techniques of preparing and writing history papers. Texts and reading are approved by the Department (i.e.: Turabian for style). Although the emphasis is general instead of particular, the instructor will be assisted by other historians representing their main special interest areas.

Prerequisites: RooWriter.

HISTORY 302 Colonial North America, 1492–1763 Credits: 3
This course examines European colonization in North America, from the voyage of Christopher Columbus to the eve of the American Revolution. Students will consider the Atlantic-world context of colonization, the environmental factors that shaped colonial development, and the complex interactions of European, African, and Indian peoples.

HISTORY 303 The American Revolution, 1763–1789 Credits: 3
This course examines the history of the American Revolution, from the explosive political crisis of the 1760s to the struggle over ratification of the Constitution. Students will consider the origins and conduct of the war, as well as the Revolution’s far-reaching political, social, and economic consequences.

HISTORY 304 America, 1783–1828: The National Experience Credits: 3
The two major threads of this course are the formation and implementation of the Constitution and the cultural adolescence of the new nation. Topics considered include the political bequest of the framers’ generation, the growing pains of territorial expansion and industrialism, the paradoxical development of regionalism and nationalism.

HISTORY 305 America, 1828–1852: The Jacksonian Period Credits: 3
An analysis of the political, social, economic, and intellectual factors in American society, 1828-1852. The period featured the presidency of Andrew Jackson, the shaping of a new democratic ideology, the culmination of manifest destiny, the quickening of the antislavery impulse, the Mexican War, the growing sectional split, and the Compromise of 1850.

HISTORY 306 America, 1850–1877: Civil War and Reconstruction Credits: 3
A survey of the political, social and economic factors leading to the dissolution of the federal union is followed by a consideration of the major features and developments of the war period. This, in turn, leads to an analysis of the major factors and relationships involved in the “reconstruction” of the federal union. The course covers the years 1850 to 1877.
HISTORY 306A History of Christianity to the Middle Ages Credits: 3
This course examines the cultural, historical and theological development of Christianity from its origins to the High Middle Ages. The main themes follow the mechanisms and conditions shaping Christianity's expansion into a major cultural, social, institutional, and intellectual force in Western Europe with a focus on patterns of crisis and reform.

HISTORY 307 America 1877-1917: Development of Industrial America Credits: 3
This course deals with the reactions of different groups of Americans to the industrialization and urbanization of the United States from 1877 to 1917, using concepts associated with modernization upon the behavior of the business community, farmers, laborers, immigrants, professionals and major ethno-cultural groupings. Other contemporary proposals for the adjustment to industrialism are explained as well as the programs which each group eventually used to adjust to modern society.

HISTORY 307A History of Christianity from the Middles Ages to Present Credits: 3
This course examines the cultural, historical and theological development of Christianity from the High Middle Ages to the present. The main themes follow the development of foundational Christian theological thought and practice into what are now mainstream Western Christian theologies, the institutional histories of Western Christianity, and the cultures of Western civilization.

HISTORY 308A America: 1914-1945: The Era Of The World Wars Credits: 3
This course examines United States social, intellectual, economic, political and diplomatic history from the beginning of World War I to the end of World War II. Special emphasis is placed on the coexistence of realism and idealism in American foreign policy, the evolution of power shifts within the American federal system, and the causes and consequences of rapid urban growth and increased industrial sophistication. Students examine the material and social texture of life during the two world wars, the so-called "roaring 20s", and the Great Depression through contemporary art forms (especially novels) and historical monographs.

HISTORY 308B Cold War, Conformity, and Dissent: America, 1945-1989 Credits: 3
This course examines United States social, cultural, intellectual, economic, political, and transformational history from the end of World War II in 1945 to the collapse of the Berlin Wall in 1989. Given our focus on the recent past, special emphasis is placed upon the importance of the historical perspective to an understanding of contemporary affairs. Major themes include: America's rise to the world power, the development of the Keynesian welfare state, the concentration of corporate wealth and power, the persistence of poverty amidst plenty, and the changing status of American women and racial and ethnic minority groups.

HISTORY 309 World War II Film and Propaganda Credits: 3
This course examines film and propaganda, including posters, political cartoons, speeches, and other media, created in prewar or wartime conditions by both the Allies and Axis powers from 1933 to 1945 as it affected World War II.

HISTORY 334 History of Technology Credits: 3
The course examines technology as it shapes and is shaped by human society. Students will consider technology as a product of historically-specific and sometimes overlapping contexts shaped by culture, economics, natural environments, and social processes.

HISTORY 348 Missouri/Kansas Border Wars Credits: 3
This course explores the history of the Civil War on the Missouri/Kansas border, where residents first shed blood over the issue slavery. An exploration of this most uncivil of wars provides insight into the ways in which societies can be fragmented by ideology and ultimately rebuilt upon different lines.

HISTORY 349 Civil War in Memory and Film Credits: 3
This course explores how the era of the Civil War and Reconstruction has been portrayed in film, literature, and art, and if the popular memory of the war accurately reflects the history. We also will discuss how the understanding of this pivotal event in American History has changed over time and how cultural artifacts often say more about the time in which they were produced than the actual history of the Civil War.

HISTORY 354R Women in Modern America Credits: 3
This course traces the part women have played in the processes of industrialization and urbanization. It looks at the general demographic, economic and social changes affecting women of all classes, as well as the role of middle-class women in the progressive, prohibition and suffrage movements. The course will also study the impact of the two world wars and the Depression upon the roles of women.

HISTORY 355A Indians of North America to 1789 Credits: 3
The history of the native peoples of North America from their origins to the era of the American Revolution.

HISTORY 355B Indians of North America Since 1789 Credits: 3
The history of the native people of North America (Indians and Inuit) and their interaction with the European invaders since 1789. This course is the sequel to HISTORY 355A, Indians of North America to 1789.

HISTORY 356 Rise of the City in the U.S. Credits: 3
This course treats the background and major developments of the urbanization of the United States. Includes the American urban tradition, the scope of urbanization, colonial beginnings, urban rivalries, promotion, case studies of cities, the growth of urban services, the slum, problems of government, population trends, urban planning, and suburban growth. Consideration is also given to the methods and techniques of urban research and history of the development of this field.

HISTORY 356R Kansas City: History of a Regional Metropolis Credits: 3
This course uses Kansas City as an urban laboratory to help students better understand the dynamics of the urbanization process in America. It features lectures and discussions on such subjects as early settlement patterns, the battle for the first bridge over the Missouri River, the development of an economy based on agricultural pursuits, the City Beautiful Movement, the social fabric, the Pendergast Machine, and the impact of World War II and after. The course fits Kansas City into the larger framework of the American urban mosaic.
HISTORY 357 The American West Credits: 3
This course deals with the relationship of the American West to the social and economic development of the United States. Major emphasis is placed on the role of the trans-Mississippi West in the economic growth of the national economy. Related cultural and political events are evaluated in the terms of the many Western frontiers. Emphasis will be placed on the Turner thesis, the Indian heritage, frontier violence, and the cow town experience.

HISTORY 358 History of the American South I Credits: 3
A study of the political, intellectual, cultural, economic, and social development of the American South up to and including the Civil War. Special topics discussed will be the plantation system, slavery, abolition, secession, the Confederacy, and the interaction of the region with the nation.

HISTORY 360R Constitutional History of the United States Credits: 3
The general question covered is: how does American society govern itself? Topics include the fusion of Anglo traditions and American environment, creation of the American republic under the Constitution of 1787, the struggle for sovereignty during the Marshall-Taney era, and the Supreme Court's utilization of the 14th Amendment to adapt the Constitution to modernity.

HISTORY 361 America and the World in the Global Age: 1900 to the Present Credits: 3
Following a rapid survey of American diplomatic and transnational affairs before 1900, this course analyzes America's increasingly complex encounters with the world - by government officials and non-state actors - since that date. Attention is given to the interrelationships of domestic and international contexts, with an attempt to discover political, geographic, technological, cultural, and economic influences that have shaped this area of American development.

HISTORY 364R Nature, Culture And The Human Experience Credits: 3
This course is an introduction to various interpretations of nature with a focus on American culture and society. We will consider ideas about nature from diverse perspectives including history, literature, philosophy and religion in order to understand how human perceptions and uses shape relations with the natural world. Specific themes include such diverse topics as the aesthetic tradition, environmental thought, and environmental justice.

HISTORY 365A American Environmental History Credits: 3
This course examines the changing relationships between human beings and the natural world through time. The main argument of this course will be that American History looks very different through an environmental lens. Nature is an important category of historical analysis as well as a topic worthy of historical study itself and this course will examine themes as diverse as Native American ecology to the modern environment crusade.

HISTORY 366RR American Labor History Credits: 3
This course examines the history of work and the working class in the U.S. from 1750 to the present. We will focus on the transformation of the workplace, the rise of the union movement, the nature of cultural and political organizations, workers' relationships with other social groups, and the role played by gender, race, and ethnicity in uniting or dividing the working class.

HISTORY 368 Children and Youth in American History Credits: 3
This course brings a gendered perspective to the history of childhood and the study of youth-focuses on the changing construction of girlhood and boyhood from precontact to the present. We will examine the variety of forces that have scripted the lives of children and adolescents and explore the active role they have played in shaping their lives and American culture. We will make use of the scholarly literature on childhood and youth as well as examine such primary sources as childbirthing manuals, laws, literature, cartoons, and toys as material culture.

HISTORY 369 Women and Work in Early America Credits: 3
This course examines the ways in which gender, race, region, and class have shaped the historical experiences of American women. Students will trace women's lives from pre-European contact to 1877 through an examination of a wide variety of social, cultural, economic, and political forces and factors.

HISTORY 370 Introduction to Material Culture Credits: 3
This course will consider the ways in which material culture contributes to our understanding of history. Scholars have increasingly recognized the significance of "the things they left behind," particularly as they provide insights to the lives of those who did not leave extensive written records. Students will consider all aspects of material culture, drawing largely on examples from American history: architecture, domestic utensils and furnishings, clothing, tools, and good agricultural practices. The courses will emphasize the process of handicraft technology as well as the product, and will consider the impact of modernization upon both process and product.

HISTORY 371 American History Through Film Credits: 3
This course will move through the twentieth century and highlight major themes and developments that reveal the contours of American history as depicted in film. Students will examine the ways in which filmmakers have presented history, paying particular attention to the presentation of political, cultural, and social conflicts.

HISTORY 379 Museums, Monuments, and American Life: An Introduction to Public History Credits: 3
This course will investigate the ways America commemorates, invokes, and misremembers its history—what scholars call public history. Students will learn the skills professionals use to communicate historical scholarship to wider audiences, and will grapple with the political and ethical issues that arise when we expand the discipline's stakeholders.

HISTORY 391 Archival Methods Credits: 3
This combined discussion and research course will examine the research potential of primary-source materials in the custody of archival depositories and the methodology employed to utilize effectively these resources. An analysis of archival method, specifically in the areas of arrangement, description and preservation, will be emphasized during the discussion portion of the course. Most of the course will be devoted to independent research in various collections of the Regional Archives of the Kansas City Federal Records Center. The course will meet at such places as the Federal Records Center, 2306 Bannister Road, or the Truman Library for both the discussion and research segments.
HISTORY 392A Archival Internship Credits: 1-3
Students work directly with professional archivists and other personnel at the Kansas City Federal Records Center, the Truman Library, Jackson County Historical Society, and similar facilities in the area. Emphasis will be given to areas of arrangement, description and preservation of archival materials. Each student must make individual arrangements through the department.

HISTORY 392B Public History Internship Credits: 1-3
Students work directly with public history and editorial personnel at the Kansas City Museum, the Kansas City Pitch Weekly, the Truman Library, and similar facilities in the area. Depending on the institutional affiliation, emphasis will be given to museum operations and displays, editing, fund-raising, historical research and writing. Each student must make individual arrangements through the department.

HISTORY 393 Museum Studies Credits: 3
This course is designed to acquaint students with specific careers in museums and historical agencies; to introduce students to the wide range of operating issues facing those working in the museum profession on a day-to-day basis; and to familiarize students with the organizations, reference works and resources available to develop the skills and training required for those who choose to make this their profession.

HISTORY 394 African American History Before 1877 Credits: 3
This course is a survey of the African American experience from Pre-Columbian exploration through reconstruction. The course focuses on the trans-Atlantic slave trade, slavery in the colonies as well as resistance and abolition movements.

HISTORY 395 African American History Since 1877 Credits: 3
This course is a survey of African Americans in the United States from 1877 to the present. The course explores the post-reconstruction era, civil rights and black nationalistic movements; the concepts of racism, desegregation/integration and separation. Contemporary issues facing a multiracial and pluralistic society are also addressed.

HISTORY 398 Black Civil Rights in the 20th and 21st Centuries Credits: 3
This course examines the fight for black civil rights in the United States in the 20th and 21st centuries, focusing on the Jim Crow period, the fight to end segregation, and the enduring problem of race in the United States.

HISTORY 400 Special Studies Credits: 1-3
Courses on subjects which are not a part of the regular department offering. The courses result from one or more of the following: (1) The expressed desire of students; (2) the broadened or refocused scholarship of a member of the history faculty; (3) the temporary presence of a scholar whose specialization is not reflected in the department’s regular offerings; (4) the conclusion by the department that the course meets a community need; (5) the effort of the history faculty to provide an interdisciplinary approach to an era or topic. The course is experimental in the sense that it is a one-time offering with the potential of repetition or modification—depending upon student, faculty and community response.

HISTORY 400B Special Studies Credits: 1-3

HISTORY 400C Special Studies Credits: 1-3

HISTORY 400CC Special Studies Credits: 3

HISTORY 400CL Special Studies Credits: 1-3

HISTORY 400CW Cluster Course: Critical Issues in Women’s & Gender Studies Credits: 3
What does it mean to grow up female in America? How does being female influence the body, the mind, identity? This course is an interdisciplinary exploration of the issues that have shaped the lives of American women throughout the life cycle and across the timeline. This course examines the role that culture and society have played in shaping and defining what it means to be an American girl and woman.

HISTORY 400D Special Studies Credits: 1-3

HISTORY 400F Special Studies Credits: 1-3

HISTORY 400G Special Studies Credits: 1-3

HISTORY 400GN Special Studies Credits: 1-3

HISTORY 400J Special Studies Credits: 1-3

HISTORY 400JCA Special Studies Credits: 1-3

HISTORY 400K Special Studies Credits: 1-3

HISTORY 400LA Special Studies Credits: 1-3

HISTORY 400M Special Studies Credits: 1-3

HISTORY 400SS Special Studies Credits: 1-3

HISTORY 400T Special Studies Credits: 1-3

HISTORY 400W Special Studies Credits: 1-3

HISTORY 400WI Special Studies Credits: 1-3

Special studies in History. Writing Intensive.
HISTORY 401A Religion in America Credits: 3
An in-depth examination of selected aspects of the history of religions in America from the colonial period to the present. Special emphasis will be given to methodological issues in the study of American religious history.

HISTORY 404 Women and Gender in Latin America Credits: 3
This course studies gender in Latin America from the eve of conquest by the Portuguese and Spanish in the fifteenth century to the present. It examines how ideas about gender affected the lives of Latin American men and women. This course additionally analyzes how gender and race contributed to the creation of a hierarchical social order. Finally, it discusses the exercise of authority within and outside households and its impact on private and public spaces.

HISTORY 405 Colonial Latin America (From the Encounter to the Early 19th Century) Credits: 3
This course discusses the conquest and colonization of Latin America by the Spanish and the Portuguese imperial powers from the time of the encounter to the early nineteenth century. It studies the Iberian, Indigenous and African cultures and their influence in the creation of a hierarchical imperial order. Emphasis is given to the impact of the conquest, the economics of exploitation, race, sexual and gender identities and, religious and legal domination.

HISTORY 406 Modern Latin America Credits: 3
This course studies social, political, economic and cultural trends in Latin America in the nineteenth and twentieth centuries. Discussion topics include nation building after independence with an emphasis on gender and race in the creation of national identities and new forms of social stratification; integration of national economies into the world economic system; the expansion of political participation and citizenship; immigration (national and transnational) and the tensions caused by the forces of modernization and tradition. Although the purpose of the course is to provide a general background for a large and diverse region (more than 20 countries), case studies from Argentina, Mexico and Brazil will illustrate the above-mentioned themes and will provide the basis for a comparative regional perspective.

HISTORY 407 Latin American Crises and Opportunities Credits: 3
This course studies why Latin America has experienced in the 20th and 21st centuries recurrent economic and political crises – and why it is still a land of enormous opportunity. While this is primarily a history course, it undertakes a multidisciplinary examination of the region’s strengths and weaknesses by discussing theories of economic development, political and sociological models as well as the influence of crime and violence. Case studies anchored in representative countries will be used to illustrate historical trends and theories.

HISTORY 408 Gender, Health, and Development in Senegal Credits: 3
This course examines women’s economic empowerment, health education initiatives, philanthropy, and social entrepreneurship in West Africa and Senegal in particular. In the main city of Dakar we will visit indigenous and global nonprofits to study their policies and processes. The culture, both urban and rural, will be experienced in order to provide a unique perspective on the Senegalese and their culture.

**Prerequisites:** Junior or Senior standing - must meet requirements established by study abroad office.

HISTORY 411A Medieval Civilization I Credits: 3
This course covers the period between the decline of the Roman Empire in the West and the Investiture Controversy. Topics include the rise of Christianity and early church-state relationships; the barbarian invasions and the various Germanic kingdoms; the age of Charlemagne; monasticism and feudalism. There will also be special sessions on the civilizations of Islam and Byzantium.

HISTORY 411B Medieval Civilization II Credits: 3
Medieval Civilization II.

HISTORY 412A Medieval Women & Children Credits: 3
This course explores the roles of women in the social, economic, political and cultural environments of medieval and early modern Europe. We examine the lives of women in all areas of life, from the ordinary to the extraordinary, in urban and rural environments, from the centers of religious and political power to the margins of society. Focus will be on the world of work for urban and peasant women and on the social and legal institutions of marriage, kinship and the family. The course makes extensive use of primary sources by and about women during this period.

HISTORY 413 Renaissance Credits: 3
Beginning with a definition and exploration of the Renaissance as a period of gradual transition between the Middle Ages and the beginning of modern culture, this course concerns itself primarily with the rise and spread of Humanism; the revival of interest in antiquity; the growth of individualism; and the rise of secularism, as well as with the artistic achievements of the period.

HISTORY 414 Reformation Credits: 3
Beginning with a description and analysis of the social, intellectual and political aspects of the later Middle Ages, the course continues with an examination of those profound religious, social and political changes which mark the 16th century as the end of the Middle Ages and the beginning of the modern secular era.

HISTORY 415B 17th and 18th Century European History Credits: 3
This course is designed to present the upper-division undergraduate with a firm grasp of the major intellectual, cultural, political and economic developments of 17th and 18th century Europe. It considers the bitter Thirty Years War in Central Europe, the rise of the Netherlands, the fall of Italy and Spain, the rise of constitutional and absolutist styles of government, the scientific revolution, the colonization by European of the Pacific and Indian Ocean Basins, Enlightenment political philosophy, the Agricultural Revolution, and the French Revolution.
HISTORY 416R The French Revolution and Napoleon Credits: 3
Narrative history concentrating on the explosive and colorful events and personalities in France, but also showing the European and Western context and impact of the revolution and Napoleon. Illustrated accounts cover such “great days” as the storming of the Bastille, the fall of Robespierre, and Napoleon’s Coup of 18 Brumaire, and great battles. Main periods are: the origins of the revolution (economic, social, political, intellectual); revolution and reconstruction (1789-92); through terror to Thermidor (Jacobins and sans-culottes); Napoleon’s wars and reconstruction (France and Europe). Cinema, slides and martial music periodically. Discussion of major authors and interpretations.

HISTORY 417R Nations & Empires: 19th Century Europe Credits: 3
This upper-division course will survey significant trends in warfare, politics, economics, social relations and culture in 19th century Europe, paying particular attention to the rise of modern ideologies and identities, world hegemony, and the social technologies of dehumanization that foreshadowed the unprecedented inhumanities of the 20th century.

HISTORY 418R The Age of Extremes 20th Century History Credits: 3
This upper-division course traces the history of Europe in the 20th century. It will survey significant trends in warfare, politics, economics, social relations and culture, paying particular attention to the issues of modernity and post modernity, imperialism and decolonization, dehumanization and genocide as well as the role of ordinary people in these systems of mass destruction.

HISTORY 419R Contemporary Europe: 1930-2000 Credits: 3
This upper-division course traces the history of Europe in the period of living memory. It will survey significant trends in warfare, politics, economics, social relations and culture, paying particular attention to the rise of globalization and the condition of postmodernity, decolonization and neocolonization, European unification and everyday life.

HISTORY 420CC World War I in Film: The World made Modern Credits: 3
This upper-division course examines World War I and its legacy through the lenses of international history and film studies. It explores the origins and conduct of the “Great War,” as it was called at the time, as well as its transforming effects on the modern international relations and the ongoing process of globalization. It also examines how the war spurred the growth of an infant motion picture industry, and how movies produced during the decades that followed helped shaping popular memories of the conflict—reflecting and shaping cultural discourses regarding the myth or reality of modern civilizational progress; the ethics of modern weaponry; the individual’s placed in mass society; constructions of class, race, and gender; and the meaning of national identify in a globalizing world. The class will draw on selected history texts and an array of films and film clips.

HISTORY 425R European Criminal Justice History, 500-1900 Credits: 3
This course will survey European crime, criminal procedure, policing and punishment between 500 and 1900. Particular attention will be given to changing methods of proof (oaths, ordeals, juries); changing type of criminal activity (banditry, vagrancy, witchcraft, professional theft) and changing penal strategies (the stocks, breaking on the wheel, the workhouse, the prison, the penitentiary). English experiences are emphasized.

HISTORY 426R The Scientific Revolution, 1500-1700 Credits: 3
An analysis of the intellectual and social currents which culminated in the Scientific Revolution. After presenting the Renaissance world view, the course will examine the influence of humanism, art, religion, and the voyages of discovery on science, as a prelude to understanding the achievements of Galileo, Harvey, Newton, and the scientific societies of the 17th century.

HISTORY 427R The Darwinian Revolution, 1650-1900 Credits: 3
An inquiry into the intellectual background of Darwin’s “Origin of Species.” The course will examine 18th- and 19th-century attitudes toward time, species, change, race, the age of the earth, the nature of fossils, creation, and evolution, as background to understanding the achievement of Darwin and the reception of his work.

HISTORY 428A History Of The Body Credits: 3
This advanced course will explore the new field of the history of the body, with particular attention to sexuality and gender. Topics will include the history of sexualities, the body and society, body disciplines, medical practices and representations of illness, beauty and fashion, and the relationship between sexualities and nationalisms.

HISTORY 428B Gender & Medicine: Patients & Practitioners From Antiquity to Present Credits: 3
This course explores, in a selective fashion, the role of women in Western medicine both as health care providers and patients. The subject of the history of medicine is too broad to be covered comprehensively in a semester, and so we will focusing on diseases or physical conditions which were believed to be limited to women—childbirth, certain mental health conditions, reproductive health, breast cancer—as well as the increasing marginalization of women within the profession of health care providers to those branches concerned primarily with “women’s problems.

HISTORY 430RA ‘We Are The Dead’: The Great War Experience Through its Artifacts Credits: 3
World War One was the “war to end all wars”; all previous wars were indeed eclipsed by its scale of destruction. And yet, it was a war that initiated a century of continual bloodshed and crimes against humanity. This course will explore the causes, nature and consequences of the Great War of 1914-18. It will be taught on different themes each Winter semester at the National World War One Memorial Museum at Liberty Memorial.

HISTORY 431R Medieval England, 1066 To 1485 Credits: 3
Beginning with the Norman conquest of England in 1066, this course traces the history of Medieval England through the establishment of the Tudor dynasty. Covered will be such items as the rise of the Angevin Empire, the conflict between monarch nobility, the evolution of Parliament, as well as the Anglo-French rivalry which culminated in the Hundred Years’ War.

HISTORY 432R Tudor England, 1485-1603 Credits: 3
This course covers England from the accession of Henry VII, the first Tudor, to the death of Elizabeth I in 1603 Topics to be covered are: transformation of England into a modern state, the Reformation, the role of Parliament, conflicts with European powers, especially Spain, etc.
HISTORY 433R History of Britain 1603-1832 Credits: 3
This course surveys the history of Britain from the rise of the Stuart dynasty through the Industrial Revolution, with particular emphasis on the cultural aspects of political, social, economic, and military changes. Topics include: the domination of the aristocracy; the rise of the Navy; the exploration of the Pacific; the monarchy of George III; the loss of the American colonies; the wars with Napoleon; the Agricultural and early Industrial Revolutions; and the social changes they brought in both Britain and the Empire.

HISTORY 434R History of Britain 1832-Present Credits: 3
This course surveys the history of the British Isles from the industrial revolution to the present day, with a particular emphasis on the cultural aspects of political, social, economic, and military changes. Topics include Victorian society, the rise of the class system, imperialism, the domestic impact of the two world wars, the reaction to the loss of the Empire, pop culture, and contemporary issues.

HISTORY 436R Modern German History Credits: 3
This course traces the history of Central Europe from the fall of Bismarck to the reunification of Germany one century later. It will ask students to think critically about the relationship between state and society, elites and 'ordinary' Germans, in the various German-speaking regimes that existed over the course of this era: two empires, two interwar republics, two fascist dictatorships, and three post-fascist republics. All assigned readings will be in English; a background knowledge of European history is recommended.

HISTORY 437AI Imperial Germanies, 1848-1918 Credits: 3
This course traces the history of German-speaking Central Europe from the Revolutions of 1848 to the collapse of the Hohenzollern and Habsburg empires at the end of World War One. It will ask students to think critically about the relationship between state and society and the role played by 'elite' and 'ordinary' people in shaping German history. This reading and writing intensive course will be run as a seminar. Final grades will be based on a portfolio of assignments of which students will select what they consider to be the best examples of their work.

Prerequisites: HISTORY 202, HISTORY 208.

HISTORY 437BI First German Republics, 1917-1935 Credits: 3
This course traces the history of the two German Republics during the inter-war years-the First Austrian Republic and the so-called Weimar Republic-from the peace movements of the First World War to the solidification of fascist dictatorships. It will ask students to think critically about the relationship between state and society and the role played by 'elite' and 'ordinary' people in shaping German history. This reading-and-writing-intensive course will be run as a seminar. Final grades will be based on a portfolio of assignments of which students will select what they consider to be the best examples of their work.

Prerequisites: HISTORY 202, HISTORY 208, RooWriter.

HISTORY 437CI The Third Reich, 1930-1950 Credits: 3
This course traces the history of the Third Reich--its origins, nature, and crimes against humanity--from its first electoral successes in the Great Depression to the trials of its leaders for various war crimes. At its center stand the challenging questions of the ethical and historical responsibility for the Holocaust. It will ask students to think critically about the relationship between state and society and the roles played by 'elite' and 'ordinary' people in shaping this tragic era of German and European history. This reading-and-writing-intensive course will be run as a seminar. Final grades will be based on a portfolio of assignments of which students will select what they consider to be the best examples of their work.

Prerequisites: HISTORY 202, HISTORY 208, RooWriter.

HISTORY 437DI Cold War Germanies, 1941-1991 Credits: 3
This course traces the history of the three postwar German Republics--the Second Austrian Republic, the German Democratic Republic, and the Federal Republic of Germany--from the initial plans of the Allies for postwar reconstruction to the Reunification of Germany in 1991. It will ask students to think critically about relationship between state and society and the role played by 'elite' and 'ordinary' people in shaping German history. This reading-and-writing-intensive course will be run as a seminar. Final grades will be based on a portfolio of assignments of which students will select what they consider to be the best examples of their work.

Prerequisites: HISTORY 202, HISTORY 208, RooWriter.

HISTORY 444R Islam and the Arabs: The Formative Period Credits: 3
The first semester of a three-semester sequence begins with a brief overview of the geography and topography of the Middle East. The course proceeds with a discussion of the conditions of pre-Islamic Arabia; the appearance of Muhammad and his mission; the rise and spread of Islam; the establishment and consolidation of the Arab dynasties in the Middle East, North Africa and Spain; Islamic institutions; and Islamic society and culture. The time span will be approximately 500 A.D. to the Mongol conquest of Baghdad in 1258.

HISTORY 445 The Ottoman Empire in the Middle East to World War I Credits: 3
The second semester of a three-semester sequence covers the transition from Arab to Turkish hegemony in most of the Middle East as well as the restoration of native Persian dynasties in Iran and their subsequent development. The emphasis is on the rise and decline of the Ottoman Turkish Empire. Attention is given to the Ottoman provinces and to the national movements of subject peoples. The course ends with an overview of World War I and the peace treaties which marked the dissolution of the Ottoman Empire.

HISTORY 446R The Middle East from World War I to the Present Credits: 3
The third semester of a three-semester sequence deals with the emergence of the modern countries of the Middle East after World War I and their history and course of development to the present day. There will be a general survey of the government and politics, economic situation, and social and cultural characteristics of each important country in the area. In addition, special topics will be discussed such as the modernization process, ideological alternatives, relations with the great powers, the economics and politics of oil, and the Arab-Israeli conflict.
HISTORY 462J Japanese Civilization Credits: 3
A survey of Japanese civilization and cultural history from the prehistorical period to the present. Emphasis on the interplay between religion, the arts, politics, and social structure.

HISTORY 464 Medieval Methods and Paleography Credits: 3
This course examines the methodology and historiography of Medieval Studies. Through an introduction to paleography, the study of medieval handwritings, it prepares students for advanced work in Medieval and Renaissance studies. Using an interdisciplinary approach, this course will examine the historical and cultural settings for medieval texts, their physical form and production, as well as the tradition of textual transmission in the medieval world. In addition to gaining familiarity with the many different types of primary sources, such as literary, artistic, legal, and notarial sources, students will be exposed to methods for practical archival work in various European nations.

Prerequisites: LATIN 110.

HISTORY 468R Archaeology and the History of Antiquity Credits: 3
This course will analyze the contributions of archaeology to the understanding of ancient history. It will cover archaeological excavations and their pertinence to classical civilization in the Near East and Greece. The techniques and methodology of field archaeologists will be discussed and demonstrated. Archaeological excavations relating to the Hittite capital, to the Ugaritic tablets, to the Minoan-Mycenaean civilization and its link to the Near East will be treated.

HISTORY 469 Archeology and Biblical History Credits: 3
An examination of ancient Israel as she emerges from the ruins of the past, both lapidary and literary. Through a study of the "mute documents," artifacts man-made (storied cities, household utensils, inscribed shards from Jericho to Jerusalem) we gain an insight indispensable for Biblical studies, for ancient Near Eastern history.

HISTORY 470 Ancient Egypt Credits: 3
This course describes the political, social and cultural evolution of ancient Egypt from pre-dynastic times, with major emphasis upon the Old, Middle, and New Kingdoms (especially the 18th dynasty and the reign of Akhenaton).

HISTORY 470P Ancient World: The Social History Of The Ancient World Credits: 4
The optional four-credit-hour component (modified independent study) will concern the social aspects of these civilizations, i.e., their daily lives. Readings and audiovisual aids will be used to help the student who will be expected to choose one aspect of each civilization, such as women, slavery, merchants, education, medicine, etc., and write a five-page paper about that topic for each period, i.e., Mesopotamia, Egypt, Greece and Rome.

HISTORY 471 Ancient Greece Credits: 3
This course begins with a survey of the pre-classical Minoan and Mycenaean civilizations and then describes the rise of prominent Greek city-states (with particular emphasis upon the evolution of Sparta and the political, social and cultural contributions of Athens). The course concludes with the rise of Macedon and Alexander's conquests and significance.

HISTORY 471P Ancient World: The Political Structure Of The Ancient World Credits: 4
The four-hour lecture period on weeknights will emphasize the historical aspects of the ancient civilizations. The lectures will be chronologically organized to focus upon their evolution from their rise to their collapse.

HISTORY 472 Ancient Rome Credits: 3
This course covers Roman history from its origins (including the Etruscans) to the decline of the imperial system. Particular emphasis is placed upon the political, social and economic developments in the Republic, the death of the Republic, the early Principate, and the factors that led to Rome's decline in the ancient world.

HISTORY 472P Ancient World: The Cul/Intellectual Dimension Of Ancient Civi Credits: 4
The four weekend periods will provide the students with a general picture of these civilizations: society, religion, economics, and culture (w.f., arts, literature, philosophy, science, etc.). Guest lecturers, slides, films and video cassettes will be used to introduce the varied aspects of these ancient peoples.

HISTORY 474 Late Antiquity: The transformation of the Mediterranean World (200–600 AD) Credits: 3
The decline of the Roman Empire and the barbarian invasions transformed the Mediterranean and European worlds, forming the foundation of Europe and the Islamic world. Students will investigate the multicultural society of Late Antiquity and become familiar with the primary sources for the period.

HISTORY 475WI The History of Ancient Israel Credits: 3
Judaism has had a tremendous impact on our civilization and yet most Americans are only dimly aware of its origins and development. This course will trace the roots of the Jewish religion in its historical context from its beginnings through the formation of rabbinic culture. The rise of Christianity will be examined in its original Judaic context, and recent discoveries, particularly those pertaining to the Dead Sea Scrolls, will be interpreted.

Prerequisites: RooWriter.

HISTORY 476 Medieval Jewish History Credits: 3
This course covers the general period from the decline of the Roman Empire to the dawn of early modern times. It is concerned with Jewish centers of life and learning in the Diaspora, both East and West. The course considers the Jews under Islamic rule from the time of Mohammed through the Golden Age of Moorish Spain. The focus then shifts to the situation of the Jews in Christian Europe, from the period of Constantine to the expulsions from England, France and Christian Spain. The Jews in the Ottoman Empire are mentioned and the course ends with the episode of Sabbatai Zevi, the false Messiah.
HISTORY 477 Modern Jewish History Credits: 3
This course surveys modern Jewish history from the Napoleonic period to World War II. Analyzing the social status of the Jews in Medieval Europe, it proceeds towards a discussion of the growth of the national state and the breakup of the Holy Roman Empire and analyzes the growth of socialism, integral nationalism, and liberal as they affected the Jewish communities in Europe and America. The course serves as a survey of modern political and economic trends as they affect a distinct group.

HISTORY 494 #Heartlandia: Digital Histories of the Midwest Credits: 3
What is the Midwest? The course will consider the political, economic, and religious history of mid-America in order to define the Midwest. Students will collaboratively contribute to an ongoing digital history project like a podcast or virtual exhibit, gaining an understanding of the region as well as new technical skills.

HISTORY 496 Historical Research Project Credits: 1-3
Working extensively with an individual faculty member actively engaged in his/her research, students practice the multiple facets of investigating the sources of history, developing a comprehensive analysis from such sources, and composing a persuasive interpretation.

Prerequisites: HISTORY 301WI.

HISTORY 497 Special Topics and Readings Credits: 1-6
Intensive reading and/or research in an area selected by the student in consultation with the instructor. May be repeated for credit when the topic varies.

HISTORY 497XCA Special Topics and Readings Credits: 1-6
Special Topics and Readings

HISTORY 498WI Senior Capstone Credits: 3
This is the capstone course in the department and is required for majors in the senior year. It consists of tutorial sessions with a regular faculty member and independent research leading to a major paper using original source materials. Performance in this course will weigh heavily in the award of departmental honors.

Prerequisites: HISTORY 301WI, RooWriter.

Honors (HONORS)

Courses
HONORS 100 First Year Seminar Credit: 1
This course is designed to assist first-year students to be exceptional fellowship and graduate/professional school applicants. Students will hone their communication and critical thinking skills and learn how to create supportive relationships with faculty members. Additionally, students will learn about the academic resources available to them at UMKC.

HONORS 101 Freshman Honors Colloquium Credit: 1
This one hour interdisciplinary course is designed to foster a shared intellectual community among the Honors College members. Guest lecturers from UMKC and the greater Kansas City region will speak on a given theme, to change from year to year.

Prerequisites: Admission into the Honors College.

HONORS 102 Freshman Honors Colloquium Credit: 1
This one hour interdisciplinary course is designed to foster a shared intellectual community among the Honors College members. Guest lecturers from UMKC and the greater Kansas City region will speak on a given theme, to change from year to year.

Prerequisites: Admission into the Honors College.

HONORS 201 Sophomore Honors Colloquium Credit: 1
This one hour interdisciplinary course is designed to foster a shared intellectual community among the Honors College members. Guest lecturers from UMKC and the greater Kansas City region will speak on a given theme, to change from year to year.

Prerequisites: Admission into the Honors College.

HONORS 202 Sophomore Honors Colloquium Credit: 1
This one hour interdisciplinary course is designed to foster a shared intellectual community among the Honors College members. Guest lecturers from UMKC and the greater Kansas City region will speak on a given theme, to change from year to year.

Prerequisites: Admission into the Honors College.

HONORS 210 Reading the World Credits: 3
An intensive reading, research and writing course surveying world literature from 500 BCE to 1600 CE. The course will cover a range of authors, genres, and cultural traditions, which may include epic, lyric poetry, prose, drama, and historical, political, and religious writing.

Prerequisites: Honors College Student, or a 3.5 GPA or higher, or a 28 ACT score or higher.
HONORS 215 Researching Kansas City Credits: 3
Researching Kansas City is an interdisciplinary undergraduate research course open to honors and other high-achieving students. It will introduce students to scholarly research and analysis through the exploration of important issues of the past and present in Kansas City.
Prerequisites: Honors College Student, or a 3.5 GPA or higher, or a 28 ACT score or higher.

HONORS 230 Honors American Government Credits: 3
This course will analyze the structure and operation of American government. Major topic areas include the historical development of American democracy, mass political behavior, political institutions, public policy, and their connections. The US and Missouri Constitutions provide a framework for the class and are examined in-depth throughout the class.
Prerequisites: Honors student, or a 3.5 GPA or higher, or a 28 ACT score or higher.

HONORS 301 Junior Honors Colloquium Credit: 1
This one hour interdisciplinary course is designed to foster a shared intellectual community among the Honors College members. Guest lecturers from UMKC and the greater Kansas City region will speak on a given theme, to change from year to year.
Prerequisites: Admission into the Honors College.

HONORS 302 Junior Honors Colloquium Credit: 1
This one hour interdisciplinary course is designed to foster a shared intellectual community among the Honors College members. Guest lecturers from UMKC and the greater Kansas City region will speak on a given theme, to change from year to year.
Prerequisites: Admission into the Honors College.

HONORS 330 Senior Honors Thesis/Project Practicum Credit: 1
The Senior Honors Practicum is a graded one-credit-hour course that will prepare honors students to undertake a Senior Honors Thesis or Project. In this class, students will explore different options for theses or projects; identify a topic and faculty advisor; plan the production of the thesis or project; produce a component of the thesis or project; and collaborate effectively with other honors students to develop their plans.
Prerequisites: Admission into the Honors College.

HONORS 350 Honors Tutorial Credits: 3
Independent Study.
Prerequisites: Admission to the Honors College.

HONORS 391 Special Topics Credits: 1-3
A particular subject normally not offered through regular courses. May be repeated for credit when the topic changes. Open to members of the Honors College and students who meet Honors College admissions criteria and/or with permission of instructor.

HONORS 401 Senior Honors Colloquium Credit: 1
This one hour interdisciplinary course is designed to foster a shared intellectual community among the Honors College members. Guest lecturers from UMKC and the greater Kansas City region will speak on a given theme, to change from year to year.
Prerequisites: Admission into the Honors College.

HONORS 402 Senior Honors Colloquium Credit: 1
This one hour interdisciplinary course is designed to foster a shared intellectual community among the Honors College members. Guest lecturers from UMKC and the greater Kansas City region will speak on a given theme, to change from year to year.
Prerequisites: Admission into the Honors College.

HONORS 490 Special Topics Credits: 3
An advanced undergraduate course designed to deal with a topic that is not available in the regular course offerings. May be repeated for credit when the subject changes.
Prerequisites: Admission into Honors College.

HONORS 495A Senior Thesis-Criminal Justice and Criminology Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495AA Senior Thesis Anthropology Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495B Senior Thesis-Art History Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.
HONORS 495C Senior Thesis Biology Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495D Senior Thesis-Chemistry Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495E Senior Thesis-Communication Studies Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisite: Departmental consent.

HONORS 495EE Senior Thesis-Electrical and Computer Engineering Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495F Senior Thesis-Economics Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495G Senior Thesis-English Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495H Senior Thesis-Foreign Languages Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495I Senior Thesis-Geosciences Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495J Senior Thesis-History Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495L Senior Thesis-Mathematics Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495M Senior Thesis - Business Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495ME Senior Thesis-Medicine Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.

HONORS 495N Senior Thesis-Philosophy Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.
Prerequisites: Departmental consent.
HONORS 495NH Senior Thesis-Health Sciences Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.

Prerequisites: Departmental consent.

HONORS 495NN Senior Thesis-Nursing Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.

Prerequisites: Departmental consent.

HONORS 495O Senior Thesis-Political Science Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.

Prerequisites: Departmental consent.

HONORS 495P Senior Thesis-Psychology Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.

Prerequisites: Departmental consent.

HONORS 495Q Senior Thesis-Sociology Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.

Prerequisites: Departmental consent.

HONORS 495R Senior Thesis-Theatre Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.

Prerequisites: Departmental consent.

HONORS 495S Senior Thesis-Education Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.

Prerequisites: Departmental consent.

HONORS 495U Senior Thesis-Classics/Ancient Studies Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.

Prerequisites: Departmental consent.

HONORS 495V Senior Thesis-Physics Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.

Prerequisites: Departmental consent.

HONORS 495X Senior Thesis-Music Credits: 2-6
Students who have completed the requirements for the Honors College may choose to do independent research and then write or create a senior thesis. If the thesis is acceptable as an honors thesis, the student will then graduate as an Honors Scholar.

Prerequisites: Departmental consent.

HONORS 496 Honors Internship Credits: 1-6
This course is an academic internship that requires written assignments in addition to the work performed in a professional workplace. Internships are individually arranged with the sponsoring organization, which may be a business, school, nonprofit agency or government office. Academic credit may range from 1 to 6 credit hours (for 0 credit hours see HONORS 496A). There will be a Learning Agreement established in the first week of the semester that states the contractual responsibilities of the student, the workplace supervisor and the internship coordinator.

HONORS 496A Honors Internship Credits: 0
This course is an academic internship that requires written assignments in addition to the work performed in a professional workplace. Internships are individually arranged with the sponsoring organization, which may be a business, school, nonprofit agency or government office. Academic credit for this course is 0 credit hours (for variable 1-6 credit hours see Honors 496). There will be a Learning Agreement established in the first week of the semester that states the contractual responsibilities of the student, the workplace supervisor and the internship coordinator. This Learning Agreement will outline the job responsibilities, workload expectations, assignments and anticipated learning outcomes of the internship experience.
HONORS 499 Senior Thesis/Project Writing Group Credit: 1
This course is open to honors students and high-achieving students who are working on senior theses, projects, or capstone papers. The group meets twice a month to offer peer response to the work of members, who set goals and deadlines for producing their theses or projects. A faculty member of the Honors College advises the group. Non-honors students who meet the Honors College admission criteria may receive permission to enroll.

Horn (HORN)

Courses
HORN 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

HORN 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

HORN 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

HORN 101 Freshman Horn I Credits: 2-4
HORN 102 Freshman Horn II Credits: 2-4
HORN 201 Sophomore Horn I Credits: 2-4
HORN 202 Sophomore Horn II Credits: 2-4
HORN 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Co-requisites: Enrollment in lessons.

Cross Listings: HORN 5300.

HORN 301 Junior Horn I Credits: 2-4
HORN 302 Junior Horn II Credits: 2-4
HORN 401 Senior Horn I Credits: 2-4
HORN 402 Senior Horn II Credits: 2-4

Information Technology (INFO-TEC)

Courses
INFO-TEC 222 Multimedia Production and Concepts Credits: 3
Multimedia production and concepts will give an overview of multimedia technology and communication theory needed to deliver information and to produce interactive presentations for the web, portable media, and for in-person presentations and demos. The course offers exposure to software, hardware, other multimedia technologies, authoring and copyright matters.
Prerequisites: COMP-SCI 101.

INFO-TEC 290 Special Topics Credits: 1-3
Selected topics in specific subject areas of Information Technology which are not part of the regular offerings.

INFO-TEC 321 Introduction to Computing Resources Administration Credits: 3
This introductory course is designed to give an overview of a wide variety of technical, interpersonal, documentation, and managerial skills needed to become an effective systems administrator.
Prerequisites: COMP-SCI 201R.

INFO-TEC 350 Object-Oriented Software Development Credits: 3
Application of object oriented programming languages as a means to implement object oriented designs. Polymorphism through inheritance and interfaces, design methods such as Responsibility Driven Design and such reusable design techniques as abstract classes and frameworks. Event-driven programming and the Java Swing classes for constructing interactive Graphical User Interfaces (GUIs), the basics of the Unified Modeling (UML) and elementary design patterns.
Prerequisites: COMP-SCI 303.
INFO-TEC 426 Practical Network Security Credits: 3
This course examines common threats to computer network security and discusses various techniques to mitigate those threats. The course material is supplemented with lab assignments that implement network security tools and use them to build a small secure network. It discusses information hiding, traffic monitoring and control, intrusion detection, and security policy. Note: NOT FOR GRADUATE CREDIT.
Prerequisites: COMP-SCI 420.

INFO-TEC 427 Network Analysis Credits: 3
This course focuses on routing in an autonomous system network using Cisco Systems equipment. It will include a review of the fundamental operations needed in AS routing and will then, through lecture and lab assignments, implement various network configurations using Cisco equipment. The concepts addressed will include router, switch and protocol implementations for Cisco Discovery Protocol, Spanning Tree Protocol, VLAN's, VLAN Trunking Protocol and standard Cisco network routing protocols, among others.
Prerequisites: COMP-SCI 420, INFO-TEC 321.

INFO-TEC 429 Introduction to Cybersecurity Credits: 3
This course introduces students to cybersecurity and its domains. The course will cover topics such as cryptography, software development security, access control, security architecture, security operations, disaster recovery, and physical and environmental security.
Prerequisites: INFO-TECH 321.

INFO-TEC 490 Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/ Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490A Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/ Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490C Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/ Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490DC Introduction to Data Compression Credits: 3
This course provides an introduction to information theory, first-order entropy; lossless methods such as Huffman coding, arithmetic coding, and dictionary methods; and lossy and transform coding including image, audio, and video formats. The emphasis in this course is on algorithmic understanding and applications rather than derivation from first principles. Not for graduate credit.
Prerequisites: MATH 210, COMP SCI 303, or equivalent.

INFO-TEC 490GP Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/ Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490IT Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/ Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490J Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/ Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490JU Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/ Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490M Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/ Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490NA Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/ Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490NS Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/ Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490SD Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/ Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 490WD Special Topics Credits: 1-3
Selected topics in specific areas of Information Technology/ Computer Science. May be repeated for credit when the topic varies.

INFO-TEC 491 Internship Credits: 1-6
Students may participate in structured internships under the joint supervision of an employer and a faculty member. The student must carry out significant professional responsibilities that also have academic merit. The number of credit hours is based on the quality of the academic experience. Available for credit/no credit only, and students must be in good standing with a least 18 credit hours of CS/IT counting towards the degree.
Prerequisites: Departmental consent.

Integrated Studies (INTGR)
Courses
INTGR 200 Intermediate Pre-Hospital Life Support Credits: 4
This course is designed to increase the scope of practice for the Emergency Medical Technician who is considering becoming a paramedic. It encompasses EMS operations, and the management of various medical and trauma emergencies at the Intermediate level. Note: Admitted students in the UMKC Paramedic Program.

INTGR 200L Intermediate Pre-Hospital Life Support Laboratory Credits: 2
Laboratory applications for emergency medical science.
**Prerequisites:** Admitted student in the UMKC Emergency Medical Services Paramedic Program.

INTGR 201 Advanced Pre-Hospital Life Support I Credits: 4
This course encompasses EMS operations, as well as roles and responsibilities. Airway management, IV therapy, and management of various medical emergencies will be addressed. Students acquire the skills necessary to perform paramedic-level skills. These skills are practiced in the laboratory and clinical setting under close supervision.
**Prerequisites:** INTGR 200.

INTGR 202 Advanced Pre-Hospital Life Support II Credits: 4
This course encompasses the management of patients in the prehospital setting. Students acquire skills to perform interventions in the paramedic scope of practice. Skills are practiced in the laboratory and clinical settings under supervision, and during field internship with an ambulance provider. Note: Admitted students in the UMKC Paramedic Program.
**Prerequisites:** INTGR 201.

Italian (ITALIAN)
Courses
ITALIAN 110 Elementary Italian I Credits: 3
Intended to give the student the ability to read prose of ordinary difficulty and to understand and speak simple Italian.

ITALIAN 120 Elementary Italian II Credits: 3
Continuation of ITALIAN 110.
**Prerequisites:** ITALIAN 110.

ITALIAN 211 Second Year Italian I Credits: 3
Further development of comprehension and communicative skills in the language. Readings of moderate difficulty and grammar review. Practice in writing. The goal is attainment of intermediate proficiency in the language.
**Prerequisites:** ITALIAN 120.

ITALIAN 221 Second Year Italian II Credits: 3
**Prerequisites:** ITALIAN 211.

ITALIAN 280 Special Intermediate Italian Topics I Credits: 1-3
Instruction of Italian on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit.
**Prerequisites:** ITALIAN 110, ITALIAN 120.

ITALIAN 290 Special Intermediate Italian Topics II Credits: 1-3
May not be repeated for credit.
**Prerequisites:** ITALIAN 280.

Latin (LATIN)
Courses
LATIN 110 Elementary Latin I Credits: 3
Elementary Latin I introduces students with no previous Latin experience to the fundamentals of Latin grammar. The course is continued with LATIN 120.

LATIN 120 Elementary Latin II Credits: 3
Elementary Latin II is a continuation of LATIN 110. This course focuses on the fundamentals of Latin grammar and morphology, and students will read longer Latin passages.
**Prerequisites:** LATIN 110.
LATIN 211 Second Year Latin Readings I Credits: 3
This course introduces students to extended readings from Roman authors in Latin. Students' knowledge of basic Latin grammar, vocabulary, and morphology will be reviewed and reinforced.
Prerequisites: LATIN 120.

LATIN 221 Second Year Latin Readings II Credits: 3
Prerequisites: LATIN 211.

LATIN 280 Special Intermediate Latin Topics I Credits: 2-4
Instruction of Latin on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit.
Prerequisites: LATIN 110, LATIN 120.

LATIN 290 Special Intermediate Latin Topics II Credits: 2-4
Continuation of LATIN 280. May not be repeated for credit.
Prerequisites: LATIN 280.

LATIN 301 Virgil Credits: 3
Selected readings in Classical Latin from the works of Virgil.
Prerequisites: LATIN 211.

LATIN 302 Ovid Credits: 3
Selected readings in Classical Latin from Ovid's Metamorphoses.
Prerequisites: LATIN 211.

LATIN 311 Prose Fiction and Epistolography Credits: 3
Selected readings in Classical Latin from Apuleius, Cicero, Petronius, Pliny, etc.
Prerequisites: LATIN 211.

LATIN 314 Lyric and Elegiac Poetry Credits: 3
Selected readings in Classical Latin from Catullus, Horace, Martial, Ovid, etc.
Prerequisites: LATIN 211.

LATIN 490 Special Readings In Latin Credits: 1-3
Intensive readings in period or genre or literary figure to be selected by the student in consultation with the instructor. Available only to advanced Latin students.

Latina / Latino Studies (LLS)

Courses
LLS 201 Introduction to Latina/o Studies Credits: 3
This course addresses and examines the social, economic, and political factors that have influenced the historical experiences of Latinas and Latinos in the U.S. Attention will focus on the major concepts, issues and debates in the field of Latina/Latino Studies. Particular consideration will be given to an analysis of and understanding as to how these factors have influenced the past and present status of Latinos in U.S. society. Given the diversity existing within the Latino population, the course will be comparative, cross-cultural, and interdisciplinary in nature.

LLS 300 Special Topics in Latinx and Latin American Studies Credits: 3
A variable content course offered in the area of Latinx and Latin American studies.

LLS 310 The World of Latinx Youth and Adolescents in the U.S. Credits: 3
This course will provide a general introduction and in-depth understanding to the largest group of racial/ethnic adolescents in the United States: Latinx youth. An historical examination of Latinx youth will provide a better understanding of their present status, with emphasis on their contact and interactions within social institutions. Additionally, students will analyze the experiences Latinx youth have within and among other groups in the broader social context based on past, present, and possible future interactions.
Cross Listings: SOCIOL 338.

LLS 322 Race and Ethnic Relations Credits: 3
The nature, origin and dynamics of ethnic and race relations in the U. S. and other societies. Specific attention will be given to the historical and contemporary contexts of prejudice discrimination and confrontation.

LLS 348 Latinx Immigrants, Migrants, and Refugees in the U.S. Credits: 3
This course addresses the culture of societies of U.S. citizens, immigrants, and refugees of Latin American heritage living in the U.S. The course emphasizes recent anthropological, historical, cultural, and sociological studies.
Cross Listings: SOCIOL 348 and ANTHRO 348.
LLS 397 Independent Readings in Latinx and Latin American Studies Credits: 1-3
Students will complete extensive readings in an area selected by the student with prior consultation with instructor.

LLS 400 Advanced Special Topics in Latinx and Latin American Studies Credits: 1-3
This course is a variable content course and offered as a result of specialized faculty interest, student demand, or the availability of a visiting expert in a field closely related to Latinx and Latin American Studies.

LLS 421 Made in the USA: Latinx Art and Experience Credits: 3
This course focuses on art of and by members of the U.S. Latinx community. Students in this course will engage with the politics of representation, gender, sexuality, race, class, and ethnicity in Latinx art, as well as visual and popular culture.

LLS 497 Directed Research Credits: 1-3
Students will develop and conduct a research project in an area selected by the student under the supervision of a faculty member. Students may only enroll in 6 total credits of LLS 497 during their time at UMKC.

Prerequisites: Junior or Senior Level Standing.

Life Sciences (LIFE-SCI)

Courses

LIFE-SCI 201 Healthcare Professions Seminar Credit: 1
This course will introduce students to various healthcare professions. Guest speakers will cover topics including day-to-day activities on the job, educational requirements, career advancement, and necessary interests and abilities.

Prerequisites: BIOLOGY 108, BIOLOGY 109, CHEM 212R.

LIFE-SCI 202 Preparing for Careers in Healthcare Credit: 1
Students will gain an understanding of the role and scope of practice of health professionals, patient privacy, professionalism, professional school applications and a deeper appreciation of what it means to be a patient through facilitated shadowing experiences.

Prerequisites: BIOLOGY 202, BIOLOGY 206, CHEM 322R.

LIFE-SCI 310 Fundamentals of Medicine I Credits: 2
This course introduces students to various aspects of women's health care. In addition, students will consider the cultural diversity of caring for patients with various medical conditions, and will integrate information from the basic sciences, the, and the social sciences as they learn about health care.

Prerequisites: BIOLOGY 202, BIOLOGY 206.

LIFE-SCI 320 Fundamentals of Medicine II Credits: 2
This course introduces students to the aging process and various medical conditions in the elderly. Cultural diversity within aging patient populations will be discussed. Students will experience personal growth and reflection.

Prerequisites: LIFE-SCI 310.

LIFE-SCI 330 Fundamentals of Medicine III Credits: 2
This course introduces students to various aspects of pediatric health care. Students will become familiar with medical symptoms and clinical findings while integrating knowledge in anatomy, physiology, and pathophysiology of infants, children, and adolescents.

Prerequisites: LIFE-SCI 320.

LIFE-SCI 340 Fundamentals of Medicine IV Credits: 2
This course introduces students to aspects of adult health care, including bioethics, conflict resolution, informed consent, and human subject research. Presentations on various medical symptoms and clinical findings will be provided to integrate anatomy, physiology, and pathophysiology for learning about acute and chronic medical conditions.

Prerequisites: LIFE-SCI 330.

LIFE-SCI 399 Introduction to Research Credits: 1-3
Introduction to the theory and practice of research in modern biological sciences. Requires minimum of 3-4 hours per week in the laboratory for each credit hour.

Prerequisites: BIOLOGY 108, BIOLOGY 109, CHEM 212R, 3.0 Science GPA.

LIFE-SCI 401 Biophysical Principles Credits: 3
Fundamental biophysical concepts and their application to the study of biological molecules, particularly macromolecules and supramolecular structures. Includes discussion of thermodynamics, kinetics, and spectroscopy.

Prerequisites: LS-BIOC 441, MATH 210, PHYSICS 210 (or PHYSICS 240).

LIFE-SCI 438 Molecular Recognition in Cellular Biology Credits: 2
Studies the latest development leading to an increased understanding of cellular biology processes when the experimental tools of structural biology analysis and molecular genetics are applied.

Prerequisites: BIOLOGY 108, BIOLOGY 109, BIOLOGY 202, BIOLOGY 206, LS-BIOC 441.
LIFE-SCI 490WI Senior Seminar Credits: 3
Discussion, writing and specific readings to coordinate with and amplify topics covered in School of Biological Sciences seminars; must include a term paper on a specific topic. Writing Intensive.
Prerequisites: RooWriter.

LIFE-SCI 497A Directed Studies-Bioinformatics Credits: 1-3
Individual or small group study of topics in the area of bioinformatics including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497B Directed Studies-Genetics Credits: 1-3
Individual or small group study of topics in the area of genetics including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497BB Directed Studies: Behavioral Biology Credits: 1-3
Individual or small group study of topics in the area of behavioral biology including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497C Directed Studies-Microbiology Credits: 1-3
Individual or small group study of topics in the area of microbiology including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497D Directed Studies-Physiology Credits: 1-3
Individual or small group study of topics in the area of physiology including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497E Directed Studies - Biochemistry Credits: 1-3
Individual or small group study of topics in the area of biochemistry including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497F Directed Studies - Biophysics Credits: 1-3
Individual or small group study of topics in the area of biophysics including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497G Directed Studies - Cell Biology Credits: 1-3
Individual or small group study of topics in the area of cell biology including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497H Directed Studies - Neuroscience Credits: 1-3
Individual or small group study of topics in the area of neuroscience including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497I Directed Studies-Botany Credits: 1-3
Individual or small group study of topics in the area of botany including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497J Directed Studies-Zoology Credits: 1-3
Individual or small group study of topics in the area of zoology including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.
LIFE-SCI 497K Directed Studies - Ecology Credits: 1-3
Individual or small group study of topics in the area of ecology including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497L Directed Studies - Biological Sciences Credits: 1-3
Individual or small group study of topics in the area of biological sciences including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 497P Directed Studies - Biotechnology Credits: 1-3
Individual or small group study of topics in the area of biotechnology including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 courses may not exceed 4 credit hours toward Biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499A Undergraduate Research-Bioinformatics Credits: 1-3
Independent research, including the writing of research reports in the area of bioinformatics. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499B Undergraduate Research-Genetics Credits: 1-3
Independent research, including the writing of research reports in the area of genetics. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499C Undergraduate Research-Microbiology Credits: 1-3
Independent research, including the writing of research reports in the area of microbiology. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499D Undergraduate Research-Physiology Credits: 1-3
Independent research, including the writing of research reports in the area of physiology. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499E Undergraduate Research-Biochemistry Credits: 1-3
Independent research, including the writing of research reports in the area of biochemistry. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499F Undergraduate Research-Biophysics Credits: 1-3
Independent research, including the writing of research reports in the area of biophysics. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499G Undergraduate Research-Cell Biology Credits: 1-3
Independent research, including the writing of research reports in the area of cell biology. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499H Undergraduate Research-Neuroscience Credits: 1-3
Independent research, including writing of research reports in the area of neuroscience. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499I Undergraduate Research-Botany Credits: 1-3
Independent research, including the writing of research reports in the area of botany. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.
LIFE-SCI 499J Undergraduate Research-Zoology Credits: 1-3
Independent research, including the writing of research reports in the area of zoology. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499K Undergraduate Research-Ecology Credits: 1-3
Independent research, including the writing of research reports in the area of ecology. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499L Undergraduate Research-Biological Sciences Credits: 1-3
Independent research, including the writing of research reports in the area of biological sciences. Combined credit for LIFE-SCI 497 and LIFE-SCI 499 may not exceed 4 credit hours toward biology course degree requirements.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI 499M Undergraduate Research-Biological Sciences Honors Credits: 1-3
Independent research, including the writing of research reports in the area of biological sciences.
Prerequisites: BIOLOGY 206, LS-BIOC 441, and Departmental consent.

LIFE-SCI H490WI Honors Senior Seminar Credits: 3
Discussion, writing and specific readings to coordinate with and amplify topics covered in School of Biological Sciences seminars; must include a term paper on a specific topic. Writing Intensive.
Prerequisites: RooWriter.

Life Sciences - Anatomy (LS-ANATO)

Courses
LS-ANATO 218 Introductory Anatomy Credits: 3
Description and discussion of the cells, organs, organ systems and basic tissues of vertebrates with special emphasis on their interrelationships in functional anatomy.
Prerequisites: BIOLOGY 102 (or BIOLOGY 108) (or BIOLOGY 109).

LS-ANATO 218L Introductory Anatomy Laboratory Credits: 2
Laboratory investigation of cells, tissues, and organs with special emphasis on their interrelationship in vertebrates.
Co-requisites: LS-ANATO 218.

LS-ANATO 219 Functional Anatomy I Credits: 3
An introduction to the functional anatomy of vertebrates with emphasis on organs, organ systems and tissues.

LS-ANATO 219L Functional Anatomy I Laboratory Credit: 1
An introduction to the functional anatomy of vertebrates with emphasis on organs, organ systems and tissues.

Life Sciences - Biochemistry (LS-BIOC)

Courses
LS-BIOC 304 Biochemistry and Nutrition Credits: 4
The chemistry of the structures and processes of the human body in their normal condition with special consideration of the chemical aspects of disease of the oral structure. A presentation of the basic principles of nutrition.

LS-BIOC 3120 Biochemistry and Nutrition Credits: 3
The fundamentals of biochemistry and the nutritional implications as they relate to source and utilization of essential nutrients.

LS-BIOC 3240 Applied Nutrition Credits: 3
Students will discuss life cycle nutrition as it relates to preventive dentistry and total health. Nutritional factors from infancy to old age are discussed, including diet and nutrition for special patients such as expectant mothers, diabetics, patients with heart disease, fracture patients, institutionalized patients, etc. Students will provide nutritional counseling to healthy patients and special patients within the framework of the course. Principles will be utilized in later clinical courses and practicums.
LS-BIOC 341 Basic Biochemistry Credits: 3
One semester course covering the properties of organic compounds important to biological systems. Structures, characterization and reactions of common compounds and their relationship to the building blocks of biological systems will be discussed. **Prerequisites:** BIOLOGY 202, CHEM 320 (or CHEM 322R).

LS-BIOC 360 Biochemistry Credits: 3
Introduction to modern biochemistry. Structure and function of biologically important compounds, major biochemical pathways and their regulation in animals, plants and microorganisms, and the molecular and biochemical basis of gene function will be studied. **Prerequisites:** BIOLOGY 202, BIOLOGY 206, CHEM 320 (or CHEM 322R), LS-BIOC 441.

LS-BIOC 360L Laboratory in Biochemistry and Molecular Biology Credits: 3
Laboratory studies in biochemistry and molecular biology with an emphasis on modern techniques and quantitative relationships. **Prerequisites:** LS-BIOC 441.

LS-BIOC 360WL Laboratory in Biochemistry and Molecular Biology Credits: 3
Laboratory studies in biochemistry and molecular Biology with an emphasis on modern techniques and quantitative relationships. **Prerequisites:** LS-BIOC 441.

LS-BIOC 365 Human Biochemistry I Credits: 3
The basic principles of human biochemistry for pharmacy students presented in a two-term integrated unit. Topics will include the chemistry and mechanisms involved in biosynthesis, degradations and utilization of the major constituents of living systems and the biochemistry of specialized tissues, hormones, nutrition and regulation. Restricted to students in the School of Pharmacy. **Prerequisites:** CHEM 320 (or CHEM 322R).


LS-BIOC 366 Human Biochemistry II Credits: 3
The basic principles of human biochemistry for pharmacy students and other undergraduates presented in a two-term integrated unit. Topics will include the chemistry and mechanisms involved in biosynthesis, degradation and utilization of the major constituents of living systems and the biochemistry of specialized tissues, hormones, nutrition and regulation. **Prerequisites:** LS-BIOC 365, School of Pharmacy Student.

LS-BIOC 370 Pharmacy Biochemistry Credits: 4
The chemistry and mechanisms involved in biosynthesis, degradation and utilization of the major constituents of living systems, and the biochemistry of specialized tissues, hormones, nutrition and regulation with a focus on application to clinical pharmacy practice. **Prerequisites:** Admission into the UMKC Pharm.D. program.

LS-BIOC 425 Bioinformatics Credits: 3
Study of the acquisition, storage, retrieval, analysis, modeling, and distribution of information in biomolecular databases. Recent developments in genomics and proteomics and how these databases are used in modern biological research will be emphasized. **Co-requisites:** LS-BIOC 441.

LS-BIOC 430 Molecular Biology and Genetic Engineering Credits: 3
Molecular aspects of gene structure and function, including macromolecular synthesis, gene regulation, genetic transfer and biotechnology will be discussed in prokaryotes and eukaryotes. **Prerequisites:** BIOLOGY 202, BIOLOGY 206.

**Co-requisites:** LS-BIOC 441.

LS-BIOC 441 Biochemistry Credits: 3
One semester course covering the properties of organic compounds important to biological systems. Structures, characterization and reactions of common compounds and their relationship to the building blocks of biological systems will be discussed. **Prerequisites:** BIOLOGY 202, CHEM 320 (or CHEM 321).

Life Sciences - Microbiology (LS-MCRB)

**Courses**

LS-MCRB 112 Microbiology and Living Credits: 3
Lectures and demonstrations concerning the cell structure, genetics and physiology of microorganisms and the role microorganisms play in the world around man with an emphasis on medical and clinical aspects of the significance of various groups of bacteria, viruses fungi and other microorganisms. This course is intended for nursing and other allied health students and for non-biology majors interested in life sciences and does not count toward Biology major requirements.
LS-MCRB 113 Introductory Microbiology Credits: 3
An introduction to microbiology with emphasis on infection and the basis of immunity. For non-majors only; does not count toward Biology degree requirements.

LS-MCRB 114L Introductory Microbiology Laboratory Credits: 2
Introductory laboratory studies in microbiology and infection to correlate with LS-MCRB 113. For non-majors only; does not count toward biology degree requirements.
Prerequisites: LS-MCRB 112 (or LS-MCRB 113).

LS-MCRB 121 Human Biology III (Microbiology) Credits: 3
Basic concepts of microbiology with emphasis on infectious diseases and host defenses.
Prerequisites: CHEM 211, LS-ANATO 219.

LS-MCRB 121L Human Biology III (Microbiology) Lab Credit: 1
Laboratory exercises demonstrating basic concepts of microbiology with emphasis on infectious diseases and host defenses.
Co-requisites: LS-MCRB 121.

LS-MCRB 313 Microbiology Credits: 3
Fundamental and applied aspects of microbial structure, metabolism, genetics and diversity. Experimental approaches to studying the microbial world will be emphasized.
Prerequisites: BIOLOGY 202, BIOLOGY 206.
Co-requisites: LS-BIOC 441.

LS-MCRB 313L Laboratory in Microbiology Credits: 3
General microbiological procedures plus advanced work in the areas of microbial physiology and genetics, pathogenic microbiology, virology, applied microbiology and biotechnology.
Co-requisites: LS-BIOC 441, LS-MCRB 313.

LS-MCRB 313WL Laboratory in Microbiology Credits: 3
General microbiological procedures plus advanced work in the areas of microbial physiology and genetics, pathogenic microbiology, virology, applied microbiology, and biotechnology.
Co-requisites: LS-BIOC 441, LS-MCRB 313.

LS-MCRB 4180 Microbiology Credits: 4
Study of infectious diseases, their etiology, symptoms, prevention and treatment. Special emphasis is placed on plaque formation, caries development, periodontal and other oral diseases that relate to dentistry.

LS-MCRB 431 Virology Credits: 3
Survey of the molecular biology of animal, plant, and bacterial viruses. The course will emphasize the molecular mechanisms of virus replication, viral pathogenesis, and the use of virus as model systems to study mammalian cells.
Prerequisites: BIOLOGY 202, BIOLOGY 206.
Co-requisites: LS-BIOC 441 (or LS-BIOC 365).

LS-MCRB 435 Immunology Credits: 3
A study of the cellular and humoral aspects of the immune response, with emphasis upon the mechanisms involved and the relationship of this response to disease processes.
Prerequisites: LS-BIOC 441 (or LS-BIOC 366), LS-MCRB 121 (or LS-MCRB 313).

Life Sciences - Physiology (LS-PHYS)

Courses
LS-PHYS 217 Human Physiology Credits: 3
Introduction to body functions presented from an organ systems approach. For non-majors only.
Prerequisites: BIOLOGY 102 (or BIOLOGY 108 or BIOLOGY 109).

LS-PHYS 217 - MOTR LIFS 100: Essentials in Human Biology

LS-PHYS 3070 Oral Physiology Credits: 3
Concepts of general physiology will be discussed as they relate to the clinical practice of dental hygiene. Emphasis will be placed on the normal and abnormal physiology of oral structures, including such topics as neurophysiology, muscle function, salivation, and endocrinology.
LS-PHYS 316 Principles of Physiology Credits: 3
Physiological functions and processes of animals at the organ and organ systems levels, including concepts of integrated and homeostatic mechanisms. The relationship between organ function and underlying cellular mechanisms in vertebrates will be emphasized.
Prerequisites: BIOLOGY 202, BIOLOGY 206, LS-BIOC 441.

LS-PHYS 399 Pharmacy Physiology I Credits: 3
LSPHYS 399 is an introduction to integrated physiology of the human body, beginning with an emphasis on understanding the foundations of physiologic principles followed by an in depth study of the physiology of the nervous, endocrine, and muscle systems.
Prerequisites: BIOLOGY 202, CHEM 320.

LS-PHYS 400 Pharmacy Physiology II Credits: 3
LSPHYS 400 is a continuation into the study of integrated human physiology. Topics covered include the cardiovascular, respiratory, renal, digestive and reproductive systems.
Prerequisites: LS-PHYS 399.

LS-PHYS 401 Physiology Lecture Credits: 5
An integrated study of normal functions of various organ systems of the human body with special consideration of the physiology of the oral cavity and its related structures.

Management (MGT)

Courses

MGT 100 Foundations of Business Credits: 3
Provides an introduction to the functional areas of business (e.g., accounting, systems, finance, marketing, human resources, and entrepreneurship) as well as a number of contemporary business topics, including social responsibility, diversity, ethics, and globalization. Additionally, students will be exposed to various topics that facilitate a successful transition from high school to college. Examples include an overview of University and Bloch School resources, development of effective study habits, time and stress management, selection of a major and career options.

MGT 301 Effective Business Communication Credits: 3
The instructor introduces students to the strategic nature of business communication. By the end of the course, students should be able to analyze business situations, prepare messages that fulfill the intended purpose of their communication, and meet the needs and expectations of business audiences. Students will develop the tools to deliver effective, professional written and oral communications, and will learn how to use library and electronic business research tools.
Prerequisites: ENGLISH 225 (or equivalent) or DISC 200; RooWriter.

MGT 301A Effective Business Communication for Non-Native Speakers Credits: 3
Students will learn the strategic nature of business communication with a focus on building English language skills and understanding U.S. business terminology and culture. By the end of the course, students should be able to analyze business situations, prepare messages that fulfill the intended purpose of their communication, and meet the needs and expectations of business audiences. Students will develop the tools to deliver effective, professional written and oral communications, in addition to cultivating their English language abilities in the business environment.
Prerequisites: ENGLISH 225 (or equivalent) or DISC 200; RooWriter.

MGT 306 Legal, Ethical And Regulatory Environment Of Business Credits: 3
The course looks at legal and moral thought, with attention to ethical issues in business. Students are introduced to our common law system; selected areas of law, with attention to the inclusion of cultural and moral values; and an introduction to government regulation of business.
Prerequisites: Bloch or BIT student with sophomore standing.

MGT 320 Law Of Commercial Transactions Credits: 3
Study of major areas of law included in the Uniform Commercial Code. Topics may include sales, commercial paper, bank deposits and collections, aspects of property law, documents of title, investment securities, and secured transactions.
Prerequisites: MGT 306.

MGT 330 Understanding the Individual in the Organization Credits: 3
This course explores the micro dynamics of organizations: the individual and his/her relationship to other people, teams, and work groups. Topics will include: individual traits, behaviors, and skills for effective performance; self-assessment and professional development; staffing; motivation; individual and group dynamics; multicultural understanding and diversity; and ethical decision making.
Prerequisites: MGT 301 or MGT 301A or concurrent enrollment (for BBA and BSA students); Bloch minor or BIT student with sophomore standing.

MGT 337 Managing Human Capital Credits: 3
Building on prior coursework, this course will provide students with advanced human resource concepts and practices as well as practical experience in how human resources should be managed in successful businesses. Student groups will work with a local organization to diagnose, analyze, and make recommendations regarding effective programs in staffing, developing, rewarding, motivating, and managing its personnel.
Prerequisites: MGT 330.
MGT 355 Organizational Effectiveness and Leadership Credits: 3
Students will study the macro dynamics of organizations: broad knowledge of how organizations work and the various ethical means of impacting outcomes. Topics will include: structure, culture, and politics of organizations; human resources and linkages to organizational culture and success; organization influence and political savvy; managing change and learning in a global context; organizational governance, codes of conduct, and internal controls; the role of business in society; and various professional development issues.
Prerequisites: MGT 330.

MGT 360 Groups and Teams Credits: 3
Teamwork has become increasingly popular in many organizations. Whether formally integrated into the organizational structure, or temporarily created around specific projects, teams can be an important competency of organizations. They are considered an effective performance unit, and expected to efficiently cope with the fast changes and demands of today's business environment. Attaining the full advantages from teamwork requires effective management of team processes and dynamics. This course focuses on issues in team development, internal processes, and members' behavior, as well as management skills needed to effectively lead teams in organizations.

MGT 365 Managing in a Virtual Environment Credits: 3
This course builds on the fundamentals of individual and group behavior to emphasize how organizational design and management practices have been dramatically affected by the proliferation of social media and other internet technologies. Students examine cases and engage in virtual exercises to experience ethical and mindful ways to engage in the virtual environment. Virtual-appropriate variations of interaction, collaboration, conflict management, decision-making, problem-solving, and leadership are introduced. Students also examine geographic and cultural issues potentially encountered in a global virtual organization.
Prerequisites: MGT 330.

MGT 370 International Management Credits: 3
Students receive an introduction to management in an international environment, addressing the management functions and behaviors necessary to develop global vision and management skills at a strategic (macro) and interpersonal (micro) level. Cross-cultural management and competitive strategy are evaluated in the context of global changes.

MGT 375 Global Mindset for Managers Credits: 3
Students receive an in-depth look at the major geopolitical and cultural factors that have forged the international conflicts, relations, and identities that international business managers should thoroughly comprehend to effectively navigate cross-border ventures. In-depth regional and country business and cultural profiles will be investigated to provide students with multiple contrasting perspectives to their own upbringing or sense of identity (a global mindset), allowing them to better sympathize, communicate, and collaborate when working in cross-cultural business environments.

MGT 470 International Study in Business Credits: 3-6
This course is designed to provide a study-abroad experience for the student. The course involves three components: study of international business through on-campus lectures and discussions; travel to a foreign country for visitations to business firms, government organizations, and cultural sites; and critique sessions of the international learning experience after travel completion.
Prerequisites: special application and selection process.

MGT 471 Strategic Management Credits: 3
The study of business strategy concepts and application using case studies representing "real world" situations. The course stresses the formulation of business strategies to achieve organizational objectives using strategic analysis and models based upon external and internal assessments of the organization's environment.
Prerequisites: ACCTNG 211, DSOM 326 (or concurrent enrollment), FIN 325, MGT 330, and MKT 324.

MGT 487 Special Topics Credits: 3
Special topics in management.

MGT 490 The Professional Experience: Internship Credits: 3
This "experiential learning" course integrates a business internship opportunity with intensive study related to professional and leadership development. Students will work in a sponsoring organization for 15-20 hours per week and use this experience as a base to build professionalism and leadership. Working with a faculty member and a small cohort of peers in a seminar setting, students will explore ideas such as cultural observation, impression management and managing up, in order to enhance their effectiveness in a business environment and develop professional and leadership skills.

MGT 496 Internship: Management Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community. Internship coursework is evaluated on a credit/no credit basis.

MGT 497 Special Topics: Management Credits: 1-3
Study and research in areas of special interest under individual faculty direction.
Prerequisites: Departmental consent.

Management Information Systems (MIS)
Courses

MIS 202 Computer Applications In Management Credits: 3
A comprehensive coverage of computer tools for personal productivity in a management context, including spreadsheets and databases.
Prerequisites: MATH 110.

MIS 402 Information Management Credits: 3
This course introduces students to the impact of information technologies and systems on the enterprise. Business Intelligence and decision support capabilities are explored as well.
Prerequisites: MIS 202, STAT 235.

MIS 415 Managing the Information Systems Resource Credits: 3
All organizations today have information systems, and managing the related resources (systems personnel, software applications, databases, networks, computing hardware) is a necessary skill for many employees. This course is aimed at developing the non-technical skills that business-school graduates need to make appropriate decisions about the deployment of information systems throughout the firm.
Prerequisites: MIS 202 and six hours of business school courses at the 300-level or above.

MIS 487 Special Topics Credits: 3
Special topics in management information systems.

MIS 496 Internship: Management Information Systems Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community. Internship coursework is evaluated on a credit/no credit basis.

MIS 497 Special Topics: Management Information Systems Credits: 1-3
Study and research in areas of special interest under individual faculty direction.
Prerequisites: Departmental consent.

Marketing (MKT)

Courses

MKT 324 Marketing Concepts Credits: 3
The course focuses on the processes involved in the marketing of goods and services, including the meaning and importance of marketing terminology, the marketing mix, the marketing concept, consumerism, market segmentation, market and marketing research, and the impacts of different competitive structures on marketing decision making.
Prerequisites: Bloch or BIT student with sophomore standing.

MKT 335 Consumer Behavior in Marketing Credits: 3
This course draws upon findings from various disciplines including cognitive psychology, social psychology, sociology, economics, and anthropology to understand and predict buying behavior. Structured around applications in marketing strategy, topical coverage includes motivation, perception, attitude change, choice decisions and the consumption process, as well as post-purchase satisfaction.
Prerequisites: MKT 324.

MKT 348 Market Analysis Credits: 3
Market Analysis is designed to systematically introduce you to the most commonly used tools and techniques used to arrive at major business decisions from a consumer/customer perspective. The course emphasizes analysis of data using statistical software. Students will be taught to use designated software to analyze data to address real-world marketing problems. The course covers analysis of revealed consumer behavior, choice, market adoption, perceptions, and preferences.
Prerequisites: DSOM 309 (or concurrent enrollment), MKT 324.

MKT 418 Sales and Promotion Strategies Credits: 3
Students receive exposure to the planning, implementation, and evaluation of various revenue-generating and promotional strategies. Topics covered will include the analysis of customers, competitors, and product markets; market segmentation; product positioning; media planning; promotional effectiveness; and client-agency relationships.
Prerequisites: MKT 324.

MKT 420 Sales Management Credits: 3
This course examines the strategic management of the boundary-spanning function of the organization, the sales force. Topics include the selling process, customer relationship management, organizing the sales effort, utilizing sales force automation technology, understanding the salesperson's role, selecting appropriate salespeople, motivating the sales force, conducting training programs, and evaluating the efficacy of individual salespeople and the overall sales function.
Prerequisites: MKT 324
MKT 442 Internet/Direct Marketing Credits: 3
This course examines internet and direct marketing as these topics relate to marketing strategy and the overall marketing plan. Coverage will include topics such as website traffic, customer relationship management (CRM), email marketing, podcasts, blogs, social media, online video, online advertising, online marketing research, and other strategies and tactics for customer acquisition, retention, and add-on selling.
Prerequisites: MKT 324.

MKT 465 Introduction to Retailing and Pricing Credits: 3
This course presents an approach to retail and pricing management. Topics covered in the course include: retail strategy development, understanding the customer, retail information systems, market location selection, merchandise buying and handling, financial operations management, human resource management, operations management, store layout and design, laws ethics, and retail tactics.
Prerequisites: MKT 324

MKT 476 Services Marketing Credits: 3
The purpose of this course is to show how the marketing of services differs from the marketing of goods. Additionally, students will learn the relationship between service quality and customer satisfaction, how to understand and assess service expectations, and how to match those expectations with company standards.
Prerequisites: MKT 324.

MKT 480 Marketing Strategy Credits: 3
Marketing Strategy is the capstone course in the marketing curriculum. The intent of this course is to review and integrate the important concepts you have learned in your other marketing and general business classes into a unified whole. This class is very intensive as well as interactive.
Prerequisites: MKT 335, MKT 348 (or concurrent enrollment).

MKT 487 Special Topics Credits: 3
Special topics in marketing.

MKT 496 Internship: Marketing Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community. Internship coursework is evaluated on a credit/no credit basis.

MKT 497 Special Topics: Marketing Credits: 1-3
Study and research in areas of special interest under individual faculty direction.
Prerequisite: Departmental consent.

Mathematics (MATH)

Courses
MATH 100 Intermediate Algebra Credits: 3
Numbers and their arithmetic properties, introduction to elementary algebra including exponents and radicals, elementary geometry and formulas, linear and quadratic functions and their graphs, and equations with two unknowns. Grades are not counted toward GPA. Does not fulfill Arts and Sciences mathematics requirement. Does not count toward graduation.

MATH 109 Precalculus Algebra Fundamentals Credits: 2
This course is required for students not meeting full placement requirements for MATH 110 (Precalculus Algebra) in order to concurrently enroll in MATH 110. Fundamental topics and skills that are necessary for success in MATH 110 will be developed in close alignment with the material covered in MATH 110 over the course of the semester. Students enrolling in this co-requisite course must remain enrolled in both courses for the semester. Students will not be permitted to withdraw from one of the courses (either MATH 109 and MATH 110) and not the other. Grades are not counted toward GPA. Does not fulfill Arts and Sciences mathematics requirement. Does not count toward graduation.
Prerequisites: ALEKS assessment score of 35 or higher, or ACT mathematics score of 18 or higher.
Co-requirements: MATH 110.

MATH 110 Precalculus Algebra Credits: 3
Functions and graphs. Inverses, compositions, and transformation of functions. Solving equations, systems of equations, and inequalities. Linear, quadratic, polynomial, and rational functions. Exponential and logarithm functions and applications.
Prerequisite: Grade of B- or higher in MATH 100, ALEKS assessment score of 51 or higher, ACT mathematics score of 22 or higher, or concurrent enrollment in MATH 109.

MATH 110 - MOTR MATH 130: Pre-Calculus Algebra
MATH 116 Mathematics For Liberal Arts Credits: 3
A survey of elementary mathematics covering such topics as: logic, sets, counting methods, introduction to probability theory, introductory statistics, plane and coordinate geometry. The course will emphasize mathematical concepts and does not require the level of computational skill of College Algebra. Topics from the history of mathematics will be presented as well as the influence of mathematics on a variety of disciplines. Recommended preparation: Three units of high school mathematics Algebra I and higher.
MATH 116 - MOTR MATH 120: Mathematical Reasoning Modeling

MATH 120 Precalculus Credits: 5
Functions and graphs. Inverses, compositions, and transformation of functions. Solving equations and systems of equations, and inequalities. Linear, quadratic, polynomial, and rational functions. Exponential and logarithm functions and applications. Trigonometric functions, trigonometric identities, triangles. Credit will be given for either MATH 110 or MATH 120, and for either MATH 120 or MATH 125.
Prerequisite: Grade of B- or higher in MATH 100, ALEKS assessment score of 56 or higher, or ACT mathematics score of 24 or higher.
MATH 120 - MOTR MATH 150: Pre-Calculus

MATH 125 Trigonometry Credits: 2
Trigonometric functions, trigonometric identities, triangles, and complex numbers. Credit will be given for either MATH 120 or MATH 125.
Prerequisites: MATH 110 (C- or higher), or ALEKS assessment score of 63% or higher.

MATH 130 Mathematics for Teachers: Number Systems Credits: 3
Designed for elementary school teachers. A constructive development of the real number system beginning with the system of whole numbers; concepts from elementary number theory; applications of quantitative systems to problems in discrete mathematics. Recommended preparation: High school algebra and geometry.
MATH 140 Mathematics for Teachers: Elementary Geometry Credits: 3
Designed for elementary school teachers. A development from informal geometric concepts to elements of the Euclidean deductive system; groups of congruence transformations, similarity transformations and symmetries; coordinate systems and vectors. Recommended preparation: High school algebra and geometry.
MATH 202 Analytic Geometry Credits: 3
Coordinate plane, lines, circles, the parabola, the ellipse, the hyperbola, transformation of coordinates, equations of the second degree, curve sketching, polar coordinates and parametric equations, complex numbers, vectors and vector operations, and solid analytic geometry.
Prerequisites: MATH 110 (or 4 units of high school math).
Co-requisites: MATH 125.

MATH 204 Mathematics for Teachers: Mathematical Immersion Credits: 3
Prerequisites: MATH 120 or MATH 130 or MATH 140 or any MATH course 200 or above.

MATH 205 Discrete Mathematics Credits: 3
MATH 206 Brief Calculus And Matrix Algebra Credits: 3
Brief review of selected topics in algebra. Introduction to matrix algebra. Introduction to differential calculus and optimization. Applications to problems in business.
Prerequisites: MATH 110 (C- or higher), or ALEKS assessment score of 63% or higher.

MATH 210 Calculus I Credits: 4
Functions and graphs, rational, trigonometric, exponential functions, composite and inverse functions, limits and continuity, differentiation and its applications, integration and its applications.
Prerequisites: MATH 120 (C- or higher), or both MATH 110 and MATH 125 (C- or higher), or ALEKS assessment score of 76% or higher.

MATH 214 Mathematics for Teachers: Algebra Credits: 3
Designed for middle school mathematics teachers. Algebraic reasoning, patterns and inductive reasoning, arithmetic and algebra of integers, algebraic systems, algebraic modeling in geometry, axiomatic mathematics.
Prerequisites: MATH 110, MATH 130, MATH 140 (or MATH 224).
MATH 216 Calculus for Biological Sciences Credits: 4
Introductory calculus designed for students in health and biological sciences. Topics include functions, limits and continuity, trigonometric functions, differentiation and its applications, integration, mathematical modeling, and discrete dynamical systems. Group projects are an integral part of this course. Credit will not be given for both MATH 216 and MATH 210.
Prerequisites: MATH 120 (C- or higher), or both MATH 110 and MATH 125 (C- or higher), or ALEKS assessment score of 76% or higher.

MATH 220 Calculus II Credits: 4
Techniques of integration, applications of the definite integral, improper integrals, sequences and series, power series. Taylor series and convergence, analytic geometry in calculus.
Prerequisites: MATH 210 (or MATH 216).

MATH 224 Mathematics for Teachers: Geometry Credits: 3
Designed for middle school mathematics teachers to connect middle school and college mathematics. Geometric reasoning, Euclidean geometry, congruence, area and volume, similarity, rigid motions and symmetry, vectors and transformations, some other geometries. Recommended Preparation: MATH 140.
Prerequisites: MATH 110, MATH 130.

MATH 226 Biomath II: Statistics and Modeling Credits: 3
Calculus-based statistics and modeling designed for students in the biological sciences or mathematics majors interested in the application of mathematics to these sciences. Topics include introductory ordinary differential equations, continuous dynamical systems, stochastic modeling, elementary probability, random variables, binomial distributions, Poisson distributions, normal distributions, point estimation, confidence intervals, hypothesis testing, ANOVA, and regression. Credit will be given for either MATH 226 or STAT 235 (or STAT 236).
Prerequisites: MATH 210 (or MATH 216).

MATH 244 Mathematics for Teachers: Calculus Credits: 4
Prerequisites: MATH 210 (or MATH 216).

MATH 250 Calculus III Credits: 4
Vectors, solid analytic geometry, vector functions and multiple variable functions, partial derivatives, multiple integrals, line and surface integrals with applications.
Prerequisites: MATH 220.

MATH 266 Accelerated Calculus I Credits: 4
An accelerated first course in calculus focusing on application of differential calculus and basic vector and matrix calculations. Enrollment in this course requires permission from the School of Computing and Engineering.
Prerequisites: By Permission after review of: ACT Math 25/four years of high school math including pre-calculus or calculus with an average of B or higher; School of Computing Engineering Student.

MATH 268 Accelerated Calculus II Credits: 3
An accelerated second course in calculus focusing on application of integral calculus, analytic geometry, and vector analysis.
Prerequisites: MATH 266; School of Computing Engineering Student.

MATH 300 Linear Algebra I Credits: 3
Linear equations, matrix algebra, real vector spaces, linear transformations, determinants, eigenvalues and eigenvectors, orthogonality, and applications.
Prerequisites: MATH 250, (or MATH 220 and COMP-SCI 191).

MATH 301 On Solid Ground: Sets and Proof Credits: 3
This course is a transition from procedural mathematics, such as calculus, to advanced mathematics where proofs are the professional language of discourse. It covers basic set theory and logic, relations and functions, and how to analyze, construct, and write clearly reasoned, well-structured elementary proofs using universal techniques. This course satisfies a state requirement for teacher certification.
Prerequisites: MATH 220.

MATH 345 Ordinary Differential Equations Credits: 4
First order equations, linear second order differential equations, Taylor series and power series solutions, Laplace transforms, elementary systems of differential equations, numerical methods, and Fourier series and boundary value problems.
Prerequisites: MATH 250.

MATH 402 Advanced Analysis I Credits: 3
Numerical sequences and completeness of the real numbers, numerical series, continuity and differentiation of real-valued functions of a real variable, integration and the fundamental theorem of calculus.
Prerequisites: MATH 250, MATH 301.
MATH 406 Partial Differential Equations Credits: 3
Separation of variables, boundary value problems, Fourier series and integrals, wave equation, heat equation, potential equation, problems in several dimensions, and Bessel's differential equation.
Prerequisites: MATH 345 (or E&C-ENGR 241, or MEC-ENGR 272).

MATH 407 Introduction to Complex Variables Credits: 3
Complex numbers, complex differentiation, elementary functions, contour integration and the Cauchy integral formula, Taylor series and Laurent series, residue calculus and its applications, and special functions.
Prerequisites: MATH 250, a 300-level MATH course (or E&C-ENGR 241, or MEC-ENGR 272).

MATH 410 Modern Algebra Credits: 3
Groups, rings, integral domains, fields and polynomial rings.
Prerequisites: MATH 300, MATH 301.

MATH 412 Advanced Analysis II Credits: 3
Topics in advanced analysis such as sequences and series of functions, power series and elementary functions, Fourier series, metric spaces, analysis in Euclidean spaces, or advanced integration.
Prerequisites: MATH 402.

MATH 414 Mathematics for Secondary Teachers: Algebra and Analysis Credits: 3
Designed for secondary-school teachers. Examine high school mathematics from a higher point of view. Real and complex numbers, functions, algebraic structures of equations, integers and polynomials, number system structures; analyses of alternate approaches, extensions, and applications of mathematical ideas, discussion of historical contexts and connections between ideas that may have been studied separately in different courses, relationships of ideas studied in secondary-school to those students may encounter in later study. When taken for graduate credit as MATH 5514, an extra project is required.
Prerequisites: MATH 300, MATH 301.

MATH 420 Linear Algebra II Credits: 3
The topics of MATH 300 are expanded and presented in the context of vector spaces over a field, with rigorous justification. Vector spaces and linear transformations, determinants, eigenvalues and eigenvectors, inner product spaces and orthogonality.
Prerequisites: MATH 300, MATH 301.

MATH 424 Mathematics for Secondary Teachers: Geometry Credits: 3
Designed for secondary-school teachers. Examine high school mathematics from a higher point of view. Congruence, distance and similarity, trigonometry, area and volume, axiomatics and Euclidean geometry; analyses of alternate approaches, extensions, and applications of mathematical ideas, discussion of historical contexts and connections between ideas that may have been studied separately in different courses, relationships of ideas studied in secondary-school to those students may encounter in later study. When taken for graduate credit as MATH 5524, an extra project is required.
Prerequisites: MATH 300, MATH 301.

MATH 430 Numerical Analysis I Credits: 3
Error analysis, solutions of equations of one variable, interpolation and polynomial approximation, numerical integration and differentiation, numerical solutions of initial-value problems.
Prerequisites: MATH 250 (or E&C-ENGR 241, or MEC-ENGR 272).

MATH 434 Introduction to Scientific Computing Credits: 3
This course provides a comprehensive introduction to numerical methods used in scientific computing. It focuses on solving math models arising from other fields such as physics, engineering, biology, and economics. The topics include mathematical foundations, numerical linear algebra, finite difference method, finite volume method, finite element method, and parallel computing.
Prerequisites: MATH 300 or COMP-SCI 393.

MATH 440 Numerical Analysis II Credits: 3
Direct and iterative methods for solving linear systems, introduction to approximation theory, approximating eigenvalues and eigenvectors, solution of systems of nonlinear equations.
Prerequisites: MATH 300, MATH 430.

MATH 444 Modern Geometries Credits: 3
Modern axiomatic development of Euclidean geometry and neutral geometry, followed by examination of non-Euclidean geometries; geometric transformations, and other geometries as time permits. Satisfies a state requirement for teacher certification.
Prerequisites: MATH 300, MATH 301.
MATH 464WI History Of Mathematics Credits: 3
Topics in the History of Mathematics from Babylonian times through the invention and consolidation of Calculus, with some modern subjects as time permits. The course will emphasize proofs, ideas, and arguments as given in original sources (in translation) from around the world and throughout history. In this writing intensive course, one or two term papers, in addition to several short essays and historical proof explications are required. A field trip will be taken to the Linda Hall Library Rare Book Room. This course is of special interest to secondary mathematics teachers as well as mathematics majors. 
Prerequisites: MATH 301, RooWriter.

MATH 469 Mathematical Modeling Credits: 3
This course introduces analytical and numerical techniques for modeling and analysis of real-world problems in areas such as economics, engineering, biology and physics. It is designed for students with basic knowledge of linear algebra and differential equations. Interdisciplinary modeling projects are the integral part of this course. 
Prerequisites: MATH 300 (or COMP-SCI 393) and MATH 345 (or MEC-ENGR 272).

MATH 490 Special Topics Credits: 1-3
Selected topics in various fields of mathematics. May be repeated for credit when the topic varies.

MATH 496 Internship/Practical Training in Mathematics or Statistics Credits: 1-3
This course provides an internship or other practical training arrangement using mathematics or statistics in an industrial, academic or other professional setting. Department approval of internship experience or practical experience required. Repeatable with up to a combined 3 credits toward the major. 
Prerequisites: MATH 250.

Mechanical Engineering (MEC-ENGR)

Courses

MEC-ENGR 130 Engineering Graphics Credits: 3
Introduction to Engineering Graphics with the use of the Computer Aided Design tools AutoCAD and SolidWorks. Introduction to 2D design with AutoCAD includes: basic features, layer control, geometric constructions, othrographic projections, dimensioning and notes, tolerancing, section views, and working drawings. Introduction to 3D design with SolidWorks includes: part modeling, revolved features, sweeps, lofts, assembly modeling and engineering drawings. No previous 2D or 3D CAD experience is necessary to take this class. 
Prerequisites: 2D AutoCAD experience.

MEC-ENGR 219 Computer Programming for Engineers Credits: 3
Analysis and synthesis of structured computer algorithms for solving engineering problems using high level programming tools such as Excel, Matlab, Fortran and/or C++.
Prerequisites: MATH 266.

MEC-ENGR 220 Electric Circuits Credits: 3
Introduction to electric circuits for civil and mechanical engineering students.
Prerequisites: MEC-ENGR 219, PHYSICS 250.

MEC-ENGR 270 Engineering Analysis I Credits: 3
This is an applied course with emphasis on physics and engineering applications. Topics include engineering applications using conics, parametric equations, polar coordinates, vectors, solid analytic geometry, vector valued functions, multi-variable functions, partial derivatives (including applications), multiple integration, vector calculus including Green’s Theorem, Curl and Divergence, line and surface integrals and Stoke’s Theorem. 
Prerequisites: MATH 268.

MEC-ENGR 272 Engineering Analysis Credits: 3
An applied course using differential equations in solutions to engineering problems. Topics include applications in first-order differential equations, linear higher-order equations, Laplace transform, Series solutions of linear ODEs (Taylor, Power, and Fourier), Numerical solutions, introduction to systems of differential equations. 
Prerequisites: MATH 268.
MEC-ENGR 285 Engineering Dynamics Credits: 3
Fundamentals of engineering dynamics, including kinematics and kinetics of particles and rigid bodies. Analysis based on forces and accelerations as well as energy and momentum methods.
Prerequisites: CIV-ENGR 275.

MEC-ENGR 299 Engineering Thermodynamics Credits: 3
Fluid properties, work and heat, first law, second law, entropy, applications to vapor and ideal gas processes.
Prerequisites: MATH 268, PHYSICS 250.

MEC-ENGR 301 Fundamental Topics in Mechanical Engineering Credits: 3
Current and new technical developments in mechanical engineering.

MEC-ENGR 306 Computer-Aided Engineering Credits: 3
Prerequisites: CIV-ENGR 219, CIV-ENGR 319, MEC-ENGR 272.

MEC-ENGR 324 Engineering Materials Credits: 3
The nature of the structure of engineering materials. The relationship of material structure to the physical properties. Mechanical behavior of engineering materials.
Prerequisites: CHEM 211, CHEM 211L, CIV-ENGR 276.

MEC-ENGR 351 Fluid Mechanics Credits: 3
Concepts of the statics and dynamics of fluids, with emphasis on principles of continuity, momentum and energy. Boundary layers, dimensional analysis and drag are covered briefly. Thorough treatment of pipe flow.
Prerequisites: MATH 250 or MEC-ENGR 270, and MEC-ENGR 272.

MEC-ENGR 352 Mechanical Instruments Lab Credits: 2
Students will investigate random and systematic errors, and their effects on measurement uncertainty. Students will be introduced to various instrumentation equipment used in measuring displacement, velocity, acceleration, force, strain, fluid pressure, fluid velocity, fluid flow rate, and temperature.
Prerequisites: E&C-ENGR 276, E&C-ENGR 277, CIV-ENGR 276, MEC-ENGR 351, MEC-ENGR 299.

MEC-ENGR 353 Heat Transfer and Fluid Mechanics Lab Credits: 2
Project-based course associated with MEC-ENGR 399 and MEC-ENGR 351. The course emphasis is on experiments related to thermodynamics, heat transfer, and fluid mechanics. Proper experimental methods, data and uncertainty analysis related to thermal and fluids measurements are discussed.
Prerequisites: MEC-ENGR 299 and MEC-ENGR 351.

MEC-ENGR 356 Mechanical Component Design Credits: 3
Introduction to mechanical engineering design and its impact on human history, principles of design with ductile and brittle materials for static and dynamic loading, classical and reliability-based factors of safety, fracture mechanics in design, application to the design of selected machine components.
Prerequisites: CIV-ENGR 276.

MEC-ENGR 360 Thermal System Design Credits: 3
Gas and vapor mixtures, cycles, availability, imperfect gases, thermodynamic relations, combustion, chemical equilibrium, power systems and design projects. Effects of design choices on the earth and living systems.
Prerequisites: MEC-ENGR 299.

MEC-ENGR 380 Manufacturing Methods Credits: 3
Introduction to manufacturing processes with emphasis on those aspects most relevant to methods, problems in force analysis, and practicum and experimentation in machine tool applications.
Prerequisites: MEC-ENGR 324.

MEC-ENGR 385 System Dynamics Credits: 3
Kinematics of mechanical systems. Introduction to the modeling and analysis of dynamic mechanical systems. Computer analysis.
Prerequisites: MEC-ENGR 272, MEC-ENGR 285.

MEC-ENGR 390 Engineering Coop/Internship Credits: 0
Students may participate in structured Engineering Coop/Internship under the supervision of employer. They must carry out significant professional responsibilities and whatever additional assignments are determined by the employer.
Prerequisites: CIV-ENGR 211, MEC-ENGR 285.

MEC-ENGR 399 Heat and Mass Transfer Credits: 3
Prerequisites: MATH 250 or MEC-ENGR 270; and MEC-ENGR 299, MEC-ENGR 351.
MEC-ENGR 399L Heat and Mass Transfer Lab Credit: 1
Project-based course associated with MECH-ENGR 399. Course emphasis is on experiments related to thermodynamics, heat transfer and fluid mechanics. Proper experimental methods, data and uncertainty analysis related to thermal and fluid measurements are discussed.
**Co-requisites:** MEC-ENGR 399.

MEC-ENGR 400 Problems Credits: 1-6
Special design, experimental and analytical problems in mechanical engineering.

MEC-ENGR 401AD Topics in Mechanical Engineering- Advance Dynamics and Modeling Credits: 3
Fundamental principles of advance rigid body dynamics with applications. Special mathematical techniques including Lagrangian and Hamiltonian methods.

MEC-ENGR 401CD Topics in Mechanical Engineering -- Applied CFD Credits: 3
The fundamentals of computational fluid mechanics. Introduction to the governing equations and boundary conditions of viscous fluid flows, turbulence and its modelling, and how to solve a fluid flow problem using commercially available CFD software.
**Prerequisites:** MEC-ENGR 285.

MEC-ENGR 401ID Topics in Mechanical Engineering Credits: 3
Kinematics and dynamics of rigid bodies in space. General theory of rotating coordinate frames, Eulers angles, Eulers equations of motion, angular momentum, work-energy principles.
**Prerequisites:** MEC-ENGR 324.

MEC-ENGR 401MB Topics in Mechanical Engineering Credits: 3
The purpose of this course is to provide an opportunity for students to gain a hands-on, in-depth understanding of the experimental measurement and analysis techniques used to quantify the biomechanics of human motion.
**Prerequisites:** MEC-ENGR 411

MEC-ENGR 401MS Topics in Mechanical Engineering Credits: 3
The incorporation of material selection in the design process will be considered.
**Prerequisites:** MEC-ENGR 324.

MEC-ENGR 401R Topics In Mechanical Engineering Credits: 3
Introduction to and analysis of the thermodynamic cycles and equipment used in Industrial Refrigeration. Applications of Industrial Refrigeration are also discussed.
**Prerequisites:** MEC-ENGR 299.

MEC-ENGR 401T Topics in Mechanical Engineering Credits: 3
This course covers the application of Newton's laws and thermodynamics to analysis of fluid flow in turbomachinery.
**Prerequisites:** MEC-ENGR 399.

MEC-ENGR 409 Fundamentals of Engineering Review Credit: 1
This course consists of a series of lectures given by different professors and is intended as a review class for all the subjects included in the Fundamentals of Engineering exam. Classes specifically focus on the review of equations and formulas included in the reference handbook published by NCEES.

MEC-ENGR 411 Introduction to Biomechanics Credits: 3
This course is to provide students with an introduction to the engineering principles of biomechanics.
**Prerequisites:** All junior-level coursework must be completed before taking this course.

MEC-ENGR 412 Biodynamics Credits: 3
Introduction to musculoskeletal biomechanics including: computational biomechanics, movement simulation, motor control and musculoskeletal tissues.
**Prerequisites:** MEC-ENGR 411.

MEC-ENGR 413 Experimental Biomechanics of Human Motion Credits: 3
The purpose of this course is to provide an opportunity for students to gain a hands-on, in-depth understanding of the experimental measurement and analysis techniques used to quantify the biomechanics of human motion.
**Prerequisites:** MEC-ENGR 411.

MEC-ENGR 414 Material Science for Advanced Applications Credits: 3
Study of the physical and mechanical metallurgy of alloy systems of interest in engineering applications.
**Prerequisites:** MEC-ENGR 324.
MEC-ENGR 415 Feedback Control Systems Credits: 3
Introduction to feedback control theory for linear dynamic systems. Topics include root locus analysis, frequency response analysis, and controller design.
Prerequisites: MEC-ENGR 385.

MEC-ENGR 420 Human Powered Vehicle Design Lab Credits: 3
Introduction to the science of human powered vehicles (HPV) providing the background necessary for the design of such vehicles. Students will learn and utilize engineering design practices and apply them toward the creation of an aerodynamic, highly engineered land based HPV.
Prerequisites: MATE111A Machine Shop Safety, Consent of instructor.

MEC-ENGR 424 Non-Metallic Engineering Materials Credits: 3
Structures, properties and applications of ceramics, glasses, cermets, polymers and composite materials.
Prerequisites: MEC-ENGR 324.

MEC-ENGR 425 Failure Analysis Credits: 3
Organize and perform a failure investigation. In addition, the course will cover the general procedures for a failure investigation and various failure mechanisms such as ductile fracture, brittle fracture, fatigue, wear, corrosion and elevated temperature.
Prerequisites: MEC-ENGR 324, MEC-ENGR 380.

MEC-ENGR 426 Introduction to Manufacturing Management Credits: 3
The objective of this course is to expose the student to various manufacturing management tools and techniques. Focus is on both the technical tools used in manufacturing as well as on the management tools needed to implement change in the manufacturing environment. As part of this course, students will research a successful company and present an analysis of manufacturing tools and techniques used.

MEC-ENGR 440 Heating and Air Conditioning Credits: 3
General principles of thermodynamics, heat transfer, and fluid dynamics are used to calculate building loads, size equipment and ducts, and evaluate system performance in maximizing human comfort. Consideration of indoor air quality and human health.
Prerequisites: MEC-ENGR 360, MEC-ENGR 399.

MEC-ENGR 441 Intermediate Fluid Mechanics Credits: 3
Topics in potential and viscous flow theory, and computational fluid dynamics.
Prerequisites: MEC-ENGR 351.

MEC-ENGR 444 Composite Materials Credits: 3
A survey of composite materials used in engineering, emphasizing fiber-reinforced composites as well as laminate and particulate composites.
Prerequisites: MEC-ENGR 324.

MEC-ENGR 447 Contracts and Law For Engineers Credits: 3
This course covers a broad range of substantive legal topics giving the student a grounding in the legal implications of certain situations that they may encounter during their careers. The course includes coverage of basic contract law, environmental regulations and compliance, construction law, antitrust law, intellectual property law, civil procedure, employment law, business entities (corporate law) product liability and criminal law and procedure. The objective of the course is to provide students with a fundamental understanding of the wide range of federal and state laws governing behavior in our complicated and rule of law driven society.

MEC-ENGR 449 Environmental Compliance, Auditing & Permitting Credits: 3
This course provides a high level overview of the most important statutes that have been enacted to protect the environment. The course covers regulation of hazardous waste, the Clean Air and Clean Water Acts, the Resource Conservation and Recovery Act, the All Appropriate Inquiry Rule and the law addressing sites contaminated with hazardous substances and the technology options employed to remediate those sites. In addition, the course provides coverage of environmental audits and emergency planning for extremely hazardous substances, the regulation of underground storage tanks, safe drinking water and the National Environmental Policy Act among other statutes.
Prerequisites: Senior standing.

MEC-ENGR 451 Power Plant Design Credits: 3
Preliminary component and system design. Optimum design of boilers, steam turbines, condensers and cooling towers and their integration into a system to minimize production costs and impact on the environment.
Prerequisites: MEC-ENGR 360, MEC-ENGR 399.

MEC-ENGR 452 Advanced Mechanics of Materials Credits: 3
Shear center; unsymmetric bending; curved beams; beams on elastic foundations; thick-walled cylinders. Energy methods. Torsion of noncircular sections. Theories of failure. Plate theory.
Prerequisites: CIV-ENGR 276.
MEC-ENGR 454 Power Generation Systems Credits: 3
Fundamentals of the power industry in a format suitable for all engineering disciplines. Survey of electric power systems, including fossil and nuclear steam cycles, combustion turbines, combines cycles, and renewable such as solar and wind. Introduction to major machinery components, systems, controls, and an overview of fuels, emissions, and emission control technologies. Prerequisites: MEC-ENGR 299.

MEC-ENGR 455 Digital Control of Mechanical Systems Credits: 3
Introduction to digital control systems. Topics include Z-transforms, sampling, stability analysis, and digital controller design. 
Prerequisites: MATH 345, MEC-ENGR 415.

MEC-ENGR 457 Mechatronic System Design Credits: 3
Theory and application of mechatronic systems through course instruction, laboratory activities, and student projects. 
Prerequisites: MEC-ENGR 415.

MEC-ENGR 458 Modern Control Systems Credits: 3
Controller design for multiple-input/multiple-output systems; controllability and observability; stochastic control problems; regulators and tracking controllers; observers. 
Prerequisites: MEC-ENGR 415.

MEC-ENGR 460 Electromechanical Conversion Credits: 3
This course describes the operation and control of electro-mechanical devices such as motors transformers to mechanical civil engineering students, including an introduction to programmable logic controllers and variable speed drives. 
Prerequisites: MEC-ENGR 220, MEC-ENGR 285.

MEC-ENGR 466 Applied Optimization and Decision Modeling Credits: 3
Introduction to mathematical programming techniques and applications. Linear and integer programming, transporation models, multiple objective and goal programming. 
Prerequisites: MEC-ENGR 306.

MEC-ENGR 467 Fuel Cells and Renewable Energy Systems Credits: 3
This course will provide an overview of the fundamental phenomena that govern the design and operation of fuel cells. The thermodynamics of fuel cell systems will be explored including operation of ideal fuel cells and the physical and chemical phenomena that lead to losses within the fuel cell. The course will provide the methods and techniques required to analyze the performance of low, medium, and high temperature fuel cells within an overall energy system. The fueling of fuel cells from renewable resources will also be discussed. 
Prerequisites: MEC-ENGR 399.

MEC-ENGR 468 Introduction to Nuclear Engineering Credits: 3
This course provides an overview of nuclear engineering for non- nuclear engineers. The course deals primarily with nuclear reactors including topics dealing with nuclear and reactor physics, reactor kinetics and controls and radiation environment. The general reactor types are covered in some detail with other topics dealing with licensing, waste management, quality assurance, balance of plant systems (turbine island), and significant nuclear accidents are also covered. Recent design innovations including small modular reactors and fusion are discussed. 
Prerequisites: MEC-ENGR 399.

MEC-ENGR 470 Experimental Design & Analysis Credits: 3
Presentation of concepts and methods of statistical analysis and the design of experiments. Concepts, techniques, interpretation, and use of results are stressed. Focus is on experimental strategy and objectives, and the application of the methods discussed, rather than the mechanics of derivation. Major sections include: a review of hypothesis testing and basic analysis of variance techniques; single factor experiments including 2k and 3k design, confounding, and Taguchi philosophy; nested and split plot designs; analysis of covariance and an introduction to response surface methods.

MEC-ENGR 486 Applied Finite Element Analysis Credits: 3
The study of advanced simulation techniques for the solution to engineering problems. The use of Finite Element Method toward solving mechanical, structural, vibration and potential flow problems will be explored. The use of current commercial simulation tools will be used extensively. 
Prerequisites: MEC-ENGR 306, MEC-ENGR 324, MEC-ENGR 385, MEC-ENGR 399.

MEC-ENGR 491 Internship Credits: 6
For International students who must register to cover off-campus employment which is approved as related to their degree by their departmental advisor and ISAO.
MEC-ENGR 492 Mechanical Design Synthesis I Credits: 3
Introduction to and application of the Engineering Design Process including: product development, needs identification, benchmarking, information gathering, concept generation, creativity methods, concept selection, professional and ethical responsibilities, and computer-aided design and rapid prototyping applications. A comprehensive design project including 3D CAD models and functioning prototypes is required.
Prerequisites: MEC-ENGR 130, MEC-ENGR 131

MEC-ENGR 493 Intermediate Dynamics Credits: 3
Theoretical discussion of kinematics and dynamics of rigid bodies in three-dimensional space. General theory of rotating coordinate frames, Euler's angles, Euler's equations of motion, angular momentum, work-energy principles, and Kane's method.
Prerequisites: MEC-ENGR 285.

MEC-ENGR 495 Vehicle Dynamics Credits: 3
Analysis and prediction of the dynamic behavior of ground vehicles utilizing computer simulation. Mechanics of various suspension systems, tire-roadway interaction, vehicle aerodynamics, vehicle handling and steering characteristics.
Prerequisites: MEC-ENGR 385.

MEC-ENGR 496W Mechanical Design Synthesis Credits: 3
Modern design theories and methodologies, with emphasis on the initial stages of the design process. Effect of design choices on the earth and living systems. Principles of embodiment design and life-cycle considerations. A comprehensive group design project is required. The course satisfies the Writing Intensive requirement.
Prerequisites: MEC-ENGR 492 or ANCH 309, RooWriter.

MEC-ENGR 499 Intermediate Heat Transfer Credits: 3
Advanced topics in conduction, convection and radiation heat transfer including transient heat transfer, phase change and heat exchangers.
Prerequisites: MEC-ENGR 399, MEC-ENGR 351.

Military Sciences (MIL-SCI)

Courses

MIL-SCI 102 Leadership Practicum Credits: 2
Examines leadership in basic tactical and patrolling operations, Includes a tactical application exercise and participation in physical fitness conditioning as a course requirement. Students practice leadership according to 16 principles and learn basic soldier skills.

MIL-SCI 112 Leadership Practicum Credits: 2
Examines advanced squad and platoon tactical operations with emphasis on patrolling operations. Topics include: leadership techniques, basic first aid, and problem-solving exercises. A tactical field application exercise and physical fitness conditioning program are included as course requirements. Students perform duties as leaders of small units.
Co-requisites: MIL-SCI 126.

MIL-SCI 116 Foundations of Officership Credit: 1
The course introduces the student to issues and competencies that are central to a commissioned officer's responsibilities. These initial lessons establish a framework for understanding officership, leadership, and Army values. Additionally, the semester addresses life skills, including physical fitness and time management. This course is designed to give the student an accurate insight into the Army profession and the officer's role in the Army.
Co-requisites: MIL-SCI 102.

MIL-SCI 126 Basic Leadership Credit: 1
This course focuses on leadership theory and decision making. "Life skills" lessons in this course include: problem solving, critical thinking, leadership theory, followership, group interaction, goal setting, and feedback mechanisms. Upon completion of this course, students are prepared to advance to more complex leadership instruction concerning the dynamics of organization. Additionally, students will be increasingly required to demonstrate knowledge of leadership fundamentals and communications (written and oral).
Co-requisites: MIL-SCI 112.

MIL-SCI 202 Leadership Practicum Credits: 2
Course examines squad and platoon offensive and defensive operations and leadership procedures in patrolling operations. Includes a tactical application exercise and participation in physical fitness conditioning as a course requirement. Students will perform various leadership roles and present classroom instruction.
Corequisite: MIL-SCI 216
MIL-SCI 212 Leadership Practicum Credits: 2
Examines advanced squad and platoon offensive and defensive operations, reaction to obstacles, and leadership procedures in patrolling operations. Includes a tactical application exercise and participation in physical fitness conditioning as a course requirement. Students will perform in various leadership roles and present classroom instruction.
Co-requisites: MIL-SCI 226.

MIL-SCI 216 Individual Leadership Series Credits: 2
This course is designed to develop within the student a knowledge of self, self-confidence and individual skills. Through experiential learning activities, students will develop problem-solving and critical-thinking skills, apply communication, feedback and conflict-resolution skills. This course delves into several aspects of communication and leadership theory. The focus of the course is on critical life skills which enable the students future success. The course concludes with a major leadership and problem-solving case study which draws upon previous instruction.
Prerequisites: MIL-SCI 126.

MIL-SCI 226 Leadership and Teamwork Credits: 2
This course focuses on self-development guided by knowledge of self and group processes. Experiential learning activities are designed to challenge students current beliefs, knowledge and skills. This semester takes the approach of placing students in a wide variety of group exercises designed to emphasize various leadership competencies and insights. The instructor, acting as a facilitator, helps guide student processing of the events to derive the leadership, group dynamics and problem-solving lessons that the exercises offer. Practical life skills are emphasized throughout.
Prerequisites: MIL-SCI 216.

Co-requisites: MIL-SCI 212.

MIL-SCI 302 Leadership Practicum Credits: 2
Examines squad and platoon offensive and defensive operations, the patrol leader in patrolling operations, and a tactical application exercise. Participation in physical fitness conditioning and a tactical application exercise is required. Students will perform in various leadership roles and present classroom instruction.
Prerequisites: MIL-SCI 226.

Co-requisites: MIL-SCI 316.

MIL-SCI 312 Leadership Practicum Credits: 2
Familiarization with military firearms; includes assembly and disassembly; tactical communications; and the field artillery request and a tactical application exercise. Participation in physical fitness conditioning and a tactical application exercise is required. Students will perform in various leadership roles and present classroom instruction.
Prerequisites: MIL-SCI 316.

Co-requisites: MIL-SCI 326.

MIL-SCI 316 Leadership and Problem Solving Credits: 3
Following an introduction to the principles of physical fitness and healthy lifestyles, lessons will cover: the Leader Development Program, planning and conducting individual and small unit training, basic tactical principles, reasoning skills and the military-specific application of these skills in the form of the Army's troop-leading procedures. The course concludes with a detailed examination of officership, which culminates in a five-hour officership case study.
Prerequisites: MIL-SCI 226.

Co-requisites: MIL-SCI 302.

MIL-SCI 326 Leadership and Ethics Credits: 3
Continues the focus from MIL-SCI 316 on doctrinal leadership and tactical operations at the small unit level. Instructional modules include: Army branches, Army leadership, philosophy, dynamics of a group environment, oral and written presentation skills, culminating in instruction in national and Army values and ethics. This critical semester synthesizes the various components of training, leadership and team building.
Prerequisites: MIL-SCI 316.

Co-requisites: MIL-SCI 312.

MIL-SCI 397 US Military History Credits: 3
This course examines the beginnings of human military history from pre-colonial through the birth of America and into the post-Cold War era. The course focuses on the origins of tactics and techniques and emphasizes the military as an aspect of American society and its role in political, social, economic, and international environments.
MIL-SCI 402 Leadership Practicum Credits: 2
Practical applications in problem analysis, decision making, planning and organization, delegation and control, and development of interpersonal skills required for effective management. Participation in physical fitness conditioning and tactical application exercise is required. Students will perform in various leadership positions and present classroom instruction.
Co-requisites: MIL-SCI 416.

MIL-SCI 412 Leadership Practicum Credits: 2
Practical applications in problem analysis, decision making, planning and organization, delegation and control, and development of interpersonal skills required for effective management, includes a tactical application exercise. Participation in physical fitness conditioning is required. Students will perform various leadership roles and conduct classroom instruction.
Prerequisites: MIL-SCI 416.
Co-requisites: MIL-SCI 426.

MIL-SCI 416 Leadership And Management Credits: 3
A series of lessons designed to enable students to make informed career decisions as they prepare for commissioning and service as Second Lieutenants. Classes concentrate on Army operations and training management, and communications and leadership skills, which support the final transition from cadet/student to Lieutenant/leader. Subjects include: The Army Training Management System, coordinating activities with staffs, and counseling skills. At the end of this semester, students should possess the fundamental skills, attributes and abilities to operate as a competent leader in the cadet battalion.
Prerequisites: MIL-SCI 326.
Co-requisites: MIL-SCI 402.

MIL-SCI 426 Officership Credits: 3
A series of lessons that provide a review of the ethical dimensions of leadership, law in leadership, organizing for military operations to include historical case studies, personnel, supply and maintenance administration and management, personal financial planning and entering the service, The semester concludes with a 12-lesson experiential exercise simulating assignment as a new Lieutenant in a unit.
Prerequisites: MIL-SCI 416.
Co-requisites: MIL-SCI 412.

MIL-SCI 497 Leadership And Management Practicum - Directed Study Credits: 1-3
Practical application in military problem analysis, decision making, planning and organization, delegation and control, and development of interpersonal skills required for effective management.

Natural Sciences (NAT-SCI)

Courses
NAT-SCI 101P Changing Life On Earth Credits: 4
This course presents an overview of issues relating to our ever changing world. It is research oriented with papers required on topics dealing with behavior, environmental issues, and aspects of evolution.
Co-requisites: NAT-SCI 102P.

NAT-SCI 102P Fundamentals Of Life Science Credits: 4
This course emphasizes the essential properties of biological systems through four major themes: diversity, the chemical and physical basis of life, continuity, and the organismal nature of life.
Co-requisites: NAT-SCI 103P.

NAT-SCI 103P Applications Of Life Sciences Credits: 4
This course is designed to provide students with laboratory exercises, field trips, films and discussions that help apply biological principles from 102P. New concepts are introduced throughout the course.
Co-requisites: NAT-SCI 102P.

NAT-SCI 130 Physics of Sports Credits: 3
A course intended for liberal arts students focusing on the physics involved in different sports. Physical laws and technological developments that impact sports will be studied.

NAT-SCI 140 How Things Work Credits: 3
A course intended for liberal arts students focusing on the principles of operations, histories, and relationships of objects from our daily environment. The areas of investigation include mechanical and thermal objects, electromagnetism, light, special materials and nuclear energy.
Co-requisites: NAT-SCI 140L.
NAT-SCI 140L How Things Work Laboratory Credit: 1
Simple experiments based on everyday experiences are analyzed in terms of conceptual physics. The material includes elements of mechanics of a rigid body, elastic properties of matter, fluid dynamics, thermodynamics, electromagnetism, optics and modern physics.

Co-requisites: NAT-SCI 140.

Cross Listings: Physics 140L and Phy-Sci 140L.

NAT-SCI 150 Astronomy: Motions of the Cosmos Credits: 3
An introductory exploration of modern topics in astronomy with an emphasis on developing conceptual models for the fundamental laws of gravity and motion crucial to the formation of stars and planetary systems, the growth of black holes and galaxies, and the evolution of cosmic structure.

NAT-SCI 153L Introductory Astronomy Laboratory Credits: 2
An introductory exploration of astronomical phenomena and concepts through quantitative laboratory activities requiring data collection, analysis and interpretation. This course is open to students from all majors. Concurrent enrollment in either NAT-SCI 150 or NAT-SCI 155 is encouraged but not required.

NAT-SCI 155 Astronomy: Starlight and Star Stuff Credits: 3
An introductory exploration of modern topics in astronomy with an emphasis on developing conceptual models for the interactions between light and matter crucial to the life and death of stars, the analysis of starlight and interstellar chemistry, and the interpretation of cosmic history.

NAT-SCI 171 Physics For Future Presidents Credits: 3
A course intended for liberal arts students focusing on the physics they need to be informed citizens in a democracy. Energy, global warming, terrorism, and health are examples of the important topics examined from the perspective of how science should inform policy.

NAT-SCI 375P Nature Of Science Credits: 4
Selected topics from the natural sciences. Provides students fundamental principles and concepts of various physical and mathematical sciences. Lectures, demonstrations and discussions provide an integrated approach to the natural sciences.

NAT-SCI 425P Introduction To Quantitative Methods Credits: 3
Topics addressed are the scientific approach to study of behavior (goals of science, research terminology, variables, distributions, measures of central tendency, confidence intervals, use of research methods and ethics in research), experimental design (validity, reliability, design and sampling techniques), and interpretation of research results. Course includes in-class computer data entry and analysis.

Prerequisites: COMP-SCI 101 and MATH 110 or MATH 116

Nursing (NURSE)

Courses

NURSE 101 Introduction to Nursing Credits: 2
This introductory two-hour course is designed to facilitate role socialization into professional nursing. Beginning with a brief historical overview of professional nursing, nursing is defined and the philosophical and practice standards of the profession are discussed. The student explores nursing's image and power bases in relationship to professional accountabilities and roles. The value and tenets of evidence-based care are emphasized and integrated with use of nursing process in professional, reflective decision-making. A review of educational paths in professional nursing leads the student into a comprehensive survey of the multiple roles, responsibilities, and requisite skills of the professional nurse today and in the future.

NURSE 120 Anatomy & Physiology I Credits: 4
This course examines the structure and function of the human body from the molecular to the organisal level as they interact among all body systems across the life span. Instructors also attempt to correlate course materials with the clinical aspects of the application of physiological knowledge. Co-requisite laboratory exercises provide practical application of theoretical concepts. In this first term of two-term course, molecular biology, biochemistry, cellular biology, and histology are studied as well as the integumentary, musculoskeletal, and nervous systems.

NURSE 125 Medical Terminology Credit: 1
This course is designed to provide the student with a foundation in medical terminology and the components of health records. Course content will include how medical terms are formed; how medical terms are applied to organs, body systems and pathological conditions; how common medical abbreviations are used; and how health records are organized and compiled.

NURSE 127 Drug Calculations Credit: 1
The drug calculation course is designed to introduce the student to methods of drug dosage calculation needed for medication administration in the health care setting. This course will review basic mathematical concepts, introduce medication specific terminology, discuss interpretation of medication orders, identify key elements of the medication label and enable the student to calculate appropriate and accurate drug dosages.

Prerequisites: Admission to the BSN Program.

NURSE 160 Anatomy and Physiology II Credits: 4
This course is a continuation of NURSE 120. Co-requisite laboratory exercises provide practical application of theoretical concepts. Physiologic systems including endocrine, cardiovascular, immune, respiratory, digestive, renal, and reproductive are studied as well as embryology and genetics.

Prerequisites: NURSE 120 (or HLSC 120).
NURSE 220 Fundamental Concepts & Skills Credits: 6
This course focuses on fundamental concepts, skills, and techniques that provide a foundation for clinical practice. The beginning student will identify factors that may influence the human system and applies the nursing process in health care setting using basic nursing interventions.
**Prerequisites:** Acceptance into Clinical Nursing Program.

NURSE 230 Health In Aging Credits: 2
This course focuses on the role of the nurse in promoting and maintaining the health of the older adult population. Evidence based nursing care of the older adult that includes physiological, psychological, pharmacological, and nutritional considerations as affected by theories on aging, socio-cultural influences, legal and ethical issues, and health care resources are explored. Nursing assessment, diagnoses, interventions, and outcomes specific to a diverse older adult population are discussed. Opportunities are provided for interaction with the older adult population.
**Prerequisites:** Admission into BSN program.

NURSE 250 Health Assessment for Nursing Practice Credits: 3
This course is designed to provide a systematic approach to the physiological, psychological, sociocultural and developmental assessment of individuals emphasizing findings considered to be within normal limits. The health history is emphasized as a tool for assessing mental and physical status. This course is designed for pre-licensure students. This three credit hour course consists of two didactic and one credit hour of clinical/lab per week.
**Prerequisites:** Admission into BSN program.

NURSE 252 Human Growth and Development Credits: 3
This course provides a basic introduction to the theory for human growth and development across the life span. Emphasis is placed upon the biological and the psychosocial aspects of growth and development. Content is organized in a modified chronological order dividing information into major stages of growth and development across the lifespan.

NURSE 255 Spanish for Health Care Pre-Professionals Credits: 3
This course focuses on conversational Spanish, medical terminology in Spanish and written/read Spanish. This course will provide the student with basic knowledge that will allow basic communication with clients who speak/read/write Spanish. This is a fast-paced course and will require practice of the language outside of the classroom in order to master the material presented.
**Prerequisites:** SPANISH 110.

NURSE 256 Pharmacology Credits: 3
This is a course in pharmacology that builds on prior knowledge of anatomy, physiology, chemistry, microbiology and pathophysiology. The major focus of the course is the basic and clinical concepts of pharmacology in evidence-based care. This course covers drug knowledge in the areas of pharmacotherapeutics, pharmacodynamics, pharmacokinetics, adverse reactions and contraindications, therapeutics indications and nursing implications.
**Prerequisites:** NURSE 127, NURSE 220, NURSE 230, NURSE 250, NURSE 395.

NURSE 262 Management of Adult Health I Credits: 5
This medical-surgical course focuses on utilization of the nursing process to the specific illnesses of the adult client in the acute care setting. High volume disease processes with associated nursing care are emphasized. The effects on the individual as a holistic system are explored. Skills are developed in caring for persons with biological, psychological and social system alterations to facilitate optimal client outcomes.
**Prerequisites:** NURSE 127, NURSE 220, NURSE 230, NURSE 250, NURSE 395.

NURSE 315 Health Literacy Credit: 1
In this course participants will explore the fundamentals of health literacy and demonstrate the impact on health outcomes. Students will be introduced to tools that health care professionals can use to assess the health literacy of their patients/clients. Tools and resources to provide health information at the correct health literacy level will be presented. Students will explore interventions that can increase an individual's health literacy.

NURSE 326 Applied Physiology Credits: 3
In this course, clinical applications to physiologic concepts are highlighted and emphasized among all body systems across the life span. Discussion will include anatomical landmarks critical to health assessment and clinical manifestations related to physiological processes. This three credit hour course consists of two credit hours of didactic and one hour of lab work that will further demonstrate these concepts through dissection, laboratory experiments, and case studies.
**Prerequisites:** Anatomy Physiology 100 or 200 level course, or admission in the RN-BSN program, or with faculty permission

NURSE 342 Legal & Ethical Issues Credits: 2
This course is designed to investigate medical-legal issues and explore the implications that legal intervention and interpretation as well as litigation have on the scope of nursing practice and the delivery of patient care. Ethical standards of nursing practice and diverse individual and group values are explored, and various ethical systems, concepts and principles used in ethical decision making are introduced.
**Prerequisites:** NURSE 360, NURSE 362.
NURSE 345 Quantitative Analysis In The Health Sciences Credits: 3
This course focuses upon the skills required for the utilization of scientific findings in evidence-based care. The conceptual basis of descriptive and inferential statistics found in the properties of the normal distribution, comprise the core of these skills. Using the normal distribution as a structure for understanding descriptive and inferential procedures, the course presents information necessary to the selection, computation and interpretation of basic statistics relevant to evidence-based care in the health sciences. Discussions of variables, measurement and tabular and graphic presentation of data precede the development of computation skills.  
Prerequisites: MATH 110, MATH 116 or higher level math course.

NURSE 360 Management of Mental Health Credits: 4
This course is designed to introduce psychiatric mental health nursing through the study of sound psychiatric nursing theory. This course will focus on the nursing process framework, and the establishment and maintenance of a therapeutic nurse-client relationship. Emphasis is placed on assessment, therapeutic communication, neurobiological theory, and pharmacology. Nursing interventions will focus on all aspects of client care, communication, client/family teaching, and community resources and their practical application in a variety of clinical settings.  
Prerequisites: NURSE 256, NURSE 262, NURSE 364, and NURSE 366.

NURSE 362 Management of Adult Health II Credits: 5
This medical-surgical course focuses on application of the nursing process to the delivery and the management of adult clients across the care continuum. This course builds on Adult Health I content to include high risk disease processes with associated nursing care. Emphasis is placed on the interaction between the client, family, nursing, and the environment to result in optimal client outcomes.  
Prerequisites: NURSE 256, NURSE 262, NURSE 364, NURSE 366.

NURSE 364 Management of Maternal & Family Health Credits: 4
This course focuses on the application of the nursing process in the adaptation of the childbearing family. Emphasis is placed on adaptation during pregnancy, labor, birth and the postpartum period. Key concepts to be addressed include maternal, fetal, neonatal and family adaptation throughout the maternity cycle, common alterations during the cycle and culturally sensitive, family-centered nursing care. Maternal, fetal and neonatal physiology, pathophysiology and pharmacology will be addressed.  
Prerequisites: NURSE 256, NURSE 262.

NURSE 366 Management of Adult Health I Credits: 4
This course focuses on the application of the nursing process in the care of the pediatric client. Emphasis is placed on providing developmentally appropriate care to healthy, acutely ill and chronically ill pediatric clients holistically within the context of a family system. Key concepts to be explored include age appropriate anatomy, physiology, pathophysiology, and pharmacology and their application to the nursing strategies of health assessment, health promotion, disease prevention, pain management, family-centered and culturally sensitive care.  
Prerequisites: NURSE 366.

NURSE 395 Pathophysiology Credits: 3
This course will focus on alterations in biological processes that affect the body's internal homeostasis. A conceptual approach will be used to emphasize general principles of pathophysiology. The etiology, pathogenesis, clinical manifestations, and sequelae of various alterations of human structure and function will be examined. Knowledge from the basic and clinical sciences will be integrated.  
Prerequisites: Admission to the Nursing major.

NURSE 401 Health Assessment for Clinical Practice Credits: 3
This course is designed to provide a systematic approach to the physiological, psychological, socio-cultural and developmental assessment of individuals emphasizing findings considered to be within normal limits. The health history is emphasized as a tool for assessing mental and physical status. This course is designed for students with previous health care education, including knowledge of biochemical functions of systems and concepts of normal. This course consists of guided self-study and on-site clinical practicum.  
Prerequisites: Admission into RN-BSN program.

NURSE 403A Comparative Weight Loss I Credit: 1
This course explores the bio/psycho/social aspects of weight gain and obesity and compares common weight loss methods according to risk, benefits, and long term and short term implications. Correlations between lifestyle issues such as diet, sleep, stress, and exercise will be explored. Specific topics that will be addressed include risks of over weight/obesity; common psychological issues for the overweight/obese; societal perceptions and barriers for overweight/obese individuals. This course consists of one hour if didactic work with one module per week for four weeks.  
NURSE 403B Comparative Weight Loss II Credit: 1
This course explores the bio/psycho/social aspects of weight gain and obesity and compares common weight loss methods according to risk, benefits, and long term and short term implications. Correlations between lifestyle issues such as diet, sleep, stress, and exercise will be explored. Comparison of common medically recommended diets and diet programs and their efficacy/risk; exercise requirements for weight loss and weight maintenance. This course consists of one hour if didactic education with one module per week for four weeks.  
NURSE 403C Comparative Weight Loss 3 Credit: 1
This course explores the bio/psycho/social aspects of weight gain and obesity and compares common weight loss methods according to risk, benefits, and long term and short term implications. Comparison of pharmacologic weight loss options ad their efficacy/risk; non-prescription medications/nutraceuticals for weight loss and their efficacy/risk; and bariatric surgeries and efficacy/risk. This course consists of one hour of didactic work with one module per week for four weeks.
NURSE 404 Introduction to Social Justice Credit: 1
This course is designed to increase a student's knowledge regarding personal and social biases based on race, ethnicity, culture, religion, age, sex, sexual orientation, social and economic status, political ideology, disability and how these entities contribute to social injustice. The focus of the course will center on issues involving diversity, prejudice and oppression that impacts social justice. During the course, students will be introduced to tools for developing social justice literacy in order to take action towards establishing a more just society.

Prerequisites: Junior or Senior Level standing - must meet requirements established by study abroad office.

NURSE 408 Gender, Health and Development in Senegal Credits: 3
This course examines women's economic empowerment, health education initiatives, philanthropy, and social entrepreneurship in West Africa and Senegal in particular. In the main city of Dakar we will visit indigenous and global nonprofits to study their policies and processes. The culture, both urban and rural, will be experienced in order to provide a unique perspective on the Senegalese and their culture.

Prerequisites: Junior or Senior Level standing - must meet requirements established by study abroad office.

NURSE 407 Information Systems and Technology for Improved Health Care Credits: 3
This course provides a basic introduction to health information technology across health care settings. Students will acquire an understanding of key concepts associated with health informatics and network models, systems and management strategies, health information strategic planning, clinical and public health application, data retrieval and analytics, public policy, research, and one's professional responsibility to protect electronic health care records.

NURSE 419 Introduction to Social Epidemiology Credit: 1
This course is designed to increase a student's knowledge of Social Epidemiology, which is the branch of epidemiology that studies the social determinants of health. Social processes will be explored that center on social networks, social support, social capital, social cohesion, and contributing ecological factors that influence health and wellness. Students will discover how social relationships and institutions, such as familial relationships, group culture, policies, and global economic forces, promote or undermine the health of populations. Students will also explore how social inequity indicators involving income, health insurance, and access to care inter-relate and often lead to negative health outcomes.

Prerequisites: NURSE 465, NURSE 467.

NURSE 462 Special Topics Credits: 2
This course is designed to explore current issues and trends influencing nursing practice. Economical, political, social and cultural issues are analyzed as they relate to interdisciplinary healthcare topics. Special Topics is aimed at preparing nursing students for immediate and long term milestones in their practice, which includes NCLEX licensure study, current clinical and practice issues, and exposure to advance nursing roles in practice and research.

Prerequisites: NURSE 465, NURSE 467.

NURSE 465 Management of Community and Public Health Nursing Credits: 4
This course focuses on applying the nursing process to the care of target community population and the individual. Emphasis is placed in health promotion and disease prevention. Discussion will include epidemiological, social, political, economic and cultural factors that influence the health of a population. The clinical components will consist of application of the nursing process to identify, prioritize, and meet the health needs of aggregates across the lifespan.

Prerequisites: NURSE 360, NURSE 362.

NURSE 467 Management of Critical & Emergent Care Credits: 5
This course focuses on applying the nursing process to the care of critically ill clients. Key concepts are: assimilation, integration, and prioritization of information to take decisive client-focused action. Students will manage appropriately the interface between client and technology so that a safe, respectful, and caring environment is established and maintained. Nursing knowledge of cardiovascular/hemodynamic monitoring and acute management of pulmonary, neurological, renal, gastrointestinal, shock, and traumatic emergencies is included.

Prerequisites: NURSE 360, NURSE 362.

NURSE 468 Effectiveness in Complex Health Systems Credits: 4
This leadership course focuses on effectiveness in complex health systems, by building upon acquired personal and interpersonal knowledge, skills and effectiveness in health outcomes. Organizational culture and systems, leadership and management theories, cultural competence, internal and external politics, and the impact of future managerial and societal paradigm changes on health care and health care delivery systems are presented. Knowledge of budgeting and health care finance, use of the legislative system, quality management, customer service, and leadership and management styles are explored. This four hour course consists of three hours of didactic/ discussion and one hour of clinical/ lab.

Prerequisites: NURSE 465, NURSE 467.

NURSE 468A Effectiveness in Complex Health Systems I Credit: 1.5
This first part of two leadership courses focuses on effectiveness in complex health systems by building upon acquired personal and interpersonal knowledge, skills, and effectiveness in health outcomes. The role of the registered nurse in advocating for clients in the health care system as well as political and regulatory processes is explored.

Prerequisites: NURSE 465, NURSE 467.
NURSE 468B Effectiveness in Complex Health Systems II Credits: 2.5
This is the second part of two leadership courses and focuses on effectiveness in complex health systems by building upon acquired personal and interpersonal knowledge, skills, and effectiveness in health outcomes. Organizational culture and systems, leadership and management theories, cultural competence, and the impact of future managerial and societal paradigm changes on health care and health care delivery systems are presented. Knowledge of budgeting and health care finance, use of the legislative system, quality management, customer service, and leadership and management styles are explored.
**Prerequisites:** NURSE 465, NURSE 467, and NURSE 468A.

NURSE 472 Clinical Internship Credits: 5
This is the final clinical application course designed to complement didactic content from the core-nursing component of the baccalaureate program. The student will integrate and apply knowledge acquired in didactic course work and from previous clinical experiences. Emphasis is placed on effectiveness in personal, interpersonal, human health, and complex health systems. In collaboration with preceptors from the clinical unit, students will manage direct care for clients in health care settings.
**Prerequisites:** NURSE 465, NURSE 467.
**Co-requisites:** NURSE 468.

NURSE 476 Scientific Inquiry Credits: 3
This course focuses upon the development of inquiry skills necessary to identify relevant research-based literature and apply findings from research to practice. Students will develop an understanding of basic research concepts and evidence based practice in addition to skills in finding, appraising, and using health related literature.
**Prerequisites:** NURSE 345 or HLSC 345, STAT 235 or equivalent upper-level statistics course.

NURSE 481 Block I: Tools for Personal Effectiveness Credits: 6
This is the first in the four-course sequence. The student will discover that the foundation for professional nursing practice is personal effectiveness. Personal effectiveness is contingent upon an understanding of the historical roots of the profession, the meaning of professionalism, image and power bases, professional standards, moral development, political role socialization and professional values. Personal effectiveness is enhanced through critical reflection of personal perspectives and biases, valuing and use of theory and research, critical thinking and decision-making, informatics' technology, the ability to manage time and stress, and the use of a career plan and informatics.
**Co-requisites:** ENGLISH 225.

NURSE 482 Block II: Tools for Interpersonal Effectiveness Credits: 3
This is the second in the four-course sequence. The student will discover that interpersonal effectiveness is a prerequisite to effective management of the care of humans and of teams. Interpersonal effectiveness is contingent on an understanding of professional value and caring, ethics in health care, legalities of practice, communication theories, and the dynamics of groups and teams. Interpersonal effectiveness is enhanced through the use of such skills as conflict resolution and negotiation, delegation, managing change, advocacy, team membership, group management, political awareness, technology utilization, and communication techniques. Content appropriate to these areas will be covered within this course.
**Prerequisites:** NURSE 481.

NURSE 483 Block III: Effectiveness in Human Health Outcomes Credits: 6
This is the third in a four-course sequence. It builds upon the personal and interpersonal skills acquired in the first two block courses and focuses on effectiveness in human health outcomes. The student will discover that effectiveness in human health outcomes is a primary goal in the delivery of an optimum continuum of health care that encompasses health promotion, disease prevention and illness care across the lifespan. Achieving effectiveness in human health outcomes across the wellness-illness continuum and the individual-to-community continuum is contingent on acquiring an understanding of epidemiology, levels of care, communicable disease control, case management, theories applicable to aggregate populations, cultural competence, evidence-based care, and information technology.
**Prerequisites:** NURSE 482.

NURSE 484 Block IV: Effectiveness in Complex Health Systems Credits: 6
This is the final course in the four-course sequence. Students will build upon the knowledge and skills acquired in the prior three course in order to examine the essentials of structure and designs, behavior and culture, synergy, workplace diversity, health care finance, and power and politics within complex health systems. Organizational theories, leadership, management and nursing's social responsibility in an emerging global health care environment will also be explored.
**Prerequisites:** NURSE 483.
NURSE 485 Application to Practice I Credits: 3
This is the first of two clinical application courses designed to complement didactic content from the four-course block sequence (NURSE 481 - NURSE 484). Students will integrate an increasingly complex knowledge base with an emphasis on developing effectiveness: personally, interpersonally, and in the health management of populations of clients within systems of community and professional organizations and practice settings. Student cohort groups, in collaboration with personnel from health related organizations and faculty, assess population health needs, identify outcomes and develop action plans based on real need. The practice experience learning processes and outcomes will be collective and provide solutions for the health care community.
Prerequisites: NURSE 481.
Co-requisites: NURSE 482, NURSE 483.

NURSE 486 Application to Practice II Credits: 3
This is the second of two Practicum application courses designed to complement didactic content from the four-course block sequence (NURSE 481 - NURSE 484) to integrate complex knowledge for personal and interpersonal development in the health management of populations of clients. Student cohort teams will apply new skills and knowledge to real issues and problems in the delivery of nursing care with an emphasis on teamwork performance and action plan implementation and outcome evaluation. The processes and outcomes of those experiences will be collaborative and provide solutions for the health care community.
Prerequisites: NURSE 483, NURSE 485.
Co-requisites: NURSE 484.

NURSE 490 Special Topics Credits: 1-9
A course of study in a special area of interest in nursing under individual faculty direction.

NURSE 490AP2 Special Topics Credits: 1-9
Special Topics

Oboe (OBOE)

Courses
OBOE 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major.

OBOE 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury performance is required.

OBOE 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.
OBOE 101 Freshman Oboe I Credits: 2-4
OBOE 102 Freshman Oboe II Credits: 2-4
OBOE 201 Sophomore Oboe I Credits: 2-4
OBOE 202 Sophomore Oboe II Credits: 2-4
OBOE 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Co-requisites: Enrollment in lessons.

Cross Listings: OBOE 5300.

OBOE 301 Junior Oboe I Credits: 2-4
OBOE 302 Junior Oboe II Credits: 2-4
OBOE 401 Senior Oboe I Credits: 2-4
OBOE 402 Senior Oboe II Credits: 2-4

Organ (ORGAN)

Courses
ORGAN 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.
ORGAN 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

ORGAN 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

ORGAN 101 Freshman Organ I Credits: 2-4
ORGAN 102 Freshman Organ II Credits: 2-4
ORGAN 201 Sophomore Organ I Credits: 2-4
ORGAN 202 Sophomore Organ II Credits: 2-4
ORGAN 301 Junior Organ I Credits: 2-4
ORGAN 302 Junior Organ II Credits: 2-4
ORGAN 401 Senior Organ I Credits: 2-4
ORGAN 402 Senior Organ II Credits: 2-4

**Percussion (PERCSN)**

**Courses**

PERCSN 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

PERCSN 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

PERCSN 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

PERCSN 101 Freshman Percussion I Credits: 2-4
PERCSN 101J Freshman Percussion I (Jazz) Credits: 2-4
PERCSN 102 Freshman Percussion II Credits: 2-4
PERCSN 102J Freshman Percussion II (Jazz) Credits: 2-4
PERCSN 201 Sophomore Percussion I Credits: 2-4
PERCSN 201J Sophomore Percussion I (Jazz) Credits: 2-4
PERCSN 202 Sophomore Percussion II Credits: 2-4
PERCSN 202J Sophomore Percussion II (Jazz) Credits: 2-4
PERCSN 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

**Cross Listings:** PERCSN 5300.

PERCSN 301 Junior Percussion I Credits: 2-4
PERCSN 301J Junior Percussion I (Jazz) Credits: 4
PERCSN 302 Junior Percussion II Credits: 2-4
PERCSN 302J Junior Percussion II (Jazz) Credits: 4
PERCSN 401 Senior Percussion I Credits: 2-4
PERCSN 401J Senior Percussion I (Jazz) Credits: 4
PERCSN 402 Senior Percussion II Credits: 2-4
PERCSN 402J Senior Percussion II (Jazz) Credits: 4

**Philosophy (PHILOS)**
Courses

PHILOS 210 Introduction to Philosophy Credits: 3
An introduction to many of the central problems of philosophy. The various dimensions of philosophy are examined as it related to our relationships with each other, our understanding of our world and our understanding of ourselves. Connections between classical philosophers and contemporary issues are explored as philosophy is considered as a deeply personal and also as a social phenomenon.
PHILOS 210 - MOTR PHIL 100: Introduction to Philosophy

PHILOS 221 Contemporary Moral Issues Credits: 3
This course offers a philosophical examination of ethical issues in contemporary society. Topics for discussion include ethical conflicts arising in business and technology, engineering, healthcare, politics, and the environment. Moral concerns addressed may include reproductive rights and technologies, warfare, capital punishment, pornography, privacy, consumerism, euthanasia, sexuality, and animal welfare.
PHILOS 221 - MOTR PHIL 102: Introduction to Ethics

PHILOS 222 Foundations Of Logic and Scientific Reasoning Credits: 3
This course introduces the basic concepts and methods of modern logic, beginning with premise, inference, conclusion, and argument, with emphasis on understanding and reconstructing complex patterns of reasoning, and analysis and construction of valid arguments.
PHILOS 222 - MOTR PHIL 101: Introduction to Logic

PHILOS 250 Special Readings In Philosophy Credits: 3
An investigation of readings on a topic, a philosophical movement, or a philosopher to be selected by the instructor. The course is designed to meet the needs of students who are interested in a specific issue or person in philosophy but do not yet possess the necessary background and skill demanded of those who have taken work beyond the introductory course (s) in philosophy.

PHILOS 310WI Ancient Philosophy Credits: 3
A survey of the central figures of classical philosophy: the pre-Socratics, Socrates, Plato, Aristotle, the Stoics, the Epicureans and other philosophers of antiquity. The contributions of major philosophers to the development of science, religion, and social and political theories are studied.
Prerequisites: PHILOS 210 or PHILOS 222, RooWriter.

PHILOS 320WI History of Modern Philosophy Credits: 3
A survey of the central figures of modern philosophy: Rene Descartes, Baruch Spinoza, G.W. Liebniz, Thomas Hobbes, John Locke, George Berkeley, David Hume and Immanuel Kant. In addition to the philosophical issues of the period, cultural, historical and political matters are considered. A secondary goal is the establishment of the pedigree of contemporary philosophical problems.
Prerequisites: PHILOS 210 or PHILOS 222, RooWriter.

PHILOS 321 Ethics Credits: 3
Attention is given to the nature of ethical ideas and the development and history of ethical theory.
Prerequisites: PHILOS 210, or PHILOS 221, or PHILOS 222.

PHILOS 322 Philosophy of Literature Credits: 3
A close study of the ancient problems at the intersection of philosophy and literature: what sort of truth, if any, do we find in literature? Does literature have ethical content? What makes a literary text beautiful? How do "literary" texts defer from philosophical and other kinds of texts? Should literary texts influence our thinking about politics and other social issues? We will study classic philosophers like Plato, Aristotle, Kierkegaard, and Nietzsche, great literary writers such as Sappho, Dante, Goethe, Dostoevsky, and Rilke, and harder to categorize figures like Freud. The class will include the study of several recent philosophers who worked specifically on the subject of the "philosophy of literature," such as Bakhtin, Benjamin, Lacan, Szondi.

PHILOS 325 Aesthetics Credits: 3
The basic problems of aesthetics are examined, with special emphasis on the character of the work of art, the aesthetic response of the viewer, the creative process of the artist, and the nature of aesthetic criticism. These topics are discussed in light of conflicting aesthetic theories.
Prerequisites: PHILOS 210 or PHILOS 222.

PHILOS 329 American Philosophy Credits: 3
The main trends of American thought are covered, with special emphasis on the philosophies of Peirce, James and Dewey.
Prerequisites: PHILOS 210 or PHILOS 222.
PHILOS 332 Existentialism Credits: 3
A study of the development of existentialism. Selections from the works of such thinkers as Kierkegaard, Nietzsche, Sartre, Heidegger, Camus and other related philosophers are considered. Special attention is devoted to the existential movements in literature, social science and medicine.
Prerequisites: PHILOS 210 or PHILOS 222.

PHILOS 333 Social And Political Philosophy Credits: 3
A consideration of representative views of the place of man in contemporary society. Contributions in psychology, political theory, economics, sociology and anthropology are investigated philosophically with a view toward offering a critical appraisal of the nature of man in the human community.

PHILOS 335 Philosophy Of Mind Credits: 3
A study of problems arising in connection with such topics as mental phenomena, the relation of mind to body, free will and determinism, the self and personal identity, and ‘thinking’ machines. Classical and contemporary treatments of such concepts as ‘mind’, ‘intention’, ‘sensation’, ‘perception’, ‘stimulus’, etc., and their relation to action and behavior are considered.
Prerequisites: PHILOS 210 or PHILOS 222.

PHILOS 337 Philosophy Of History Credits: 3
A discussion of methodological and substantive issues, including the nature of historical explanation, whether history can be a science, and various theories of history such as those of Vico, Hegel, Marx, and Collingwood.
Prerequisites: PHILOS 210 or PHILOS 222.

PHILOS 340 Philosophy Of Law Credits: 3
An analysis of major philosophies of law, including methods of justifying legal systems through natural law, legal positivism, sociological jurisprudence, theology, etc. Contemporary legal theories are critically analyzed.
Prerequisites: PHILOS 210 or PHILOS 222.

PHILOS 370 Environmental Ethics And Policy Credits: 3
Various philosophical approaches to issues such as the value of nature, human obligations to non-human animals, species, ecosystems and future generations; environmental justice; restoration; resource use; environmental politics; and the relation between environmental issues, policy and ethics will be discussed critically.

PHILOS 430 Plato Credits: 3
Selected dialogues of Plato are studied with a view to understanding Plato’s philosophy and its position in the world of Greece and antiquity. Plato’s philosophy is also examined with reference to his place in the Western tradition and in modern philosophy.
Prerequisites: PHILOS 210, PHILOS 222 (or equivalent).

PHILOS 431 Aristotle Credits: 3
Selected portions of Aristotle’s works on logic, metaphysics, science, ethics, politics, and poetics are studied with a view to understanding Aristotle’s philosophy and its position in the world of Greece and antiquity. Aristotle’s philosophy is examined with reference to its place in the Western tradition and in modern philosophy.
Prerequisites: PHILOS 210 or PHILOS 222.

PHILOS 436 Kant Credits: 3
A study of selected writings of Immanuel Kant, with particular emphasis on the epistemological, metaphysical and ethical aspects of Kant’s philosophy; an examination of Kant’s significance within contemporary thought.
Prerequisites: PHILOS 210 or PHILOS 222.

PHILOS 445 20Th-Century Philosophy Credits: 3
A study of the development of philosophy in the 20th-Century, treating such movements as Idealism, Realism, Logical Positivism, Existentialism, Phenomenology, Pragmatism, and Analytic Philosophy.
Prerequisites: PHILOS 210 or PHILOS 222.

PHILOS 448 Recent Ethical Theories Credits: 3
An analysis and investigation of modern and contemporary ethical theories. Among the theories considered are ethical relativity, the emotive theory, utilitarianism, neo Kantianism, and situation ethics.
Prerequisites: PHILOS 321.

PHILOS 451 History and Philosophy of Bioethics Credits: 3
This course will provide an overview of the history of medicine and bioethics from antiquity to the present. In addition to key historical events, the course will provide an overview of foundational ethical theories. The course will explore key events in bioethics and the responses to them in the bioethics literature.

PHILOS 452 Healthcare Law and Policy Credits: 3
This course will focus on basic issues in healthcare law and public policy. Issues such as confidentiality, informed consent, healthcare financing, and end-of-life decision making will be covered. In addition to key historical events, the course will provide an overview of foundational ethical theories. The course will explore key events in bioethics and the responses to them in the bioethics literature.
PHILOS 453 Clinical Ethics and Case Consultation Credits: 3
This course will focus on classic cases in bioethics and will expose students to contemporary trends in healthcare ethics consultation.

PHILOS 480 Selected Topics Credits: 1-3
Each time this course is offered a particular philosopher or particular area of philosophy will be the topic of discussion. The course may be repeated for credit when the topic varies.
Prerequisites: PHILOS 210 or PHILOS 222.

PHILOS 480A Selected Topics Credits: 1-3
PHILOS 480B Selected Topics Credits: 1-3
PHILOS 480E Selected Topics Credits: 1-3
PHILOS 490 Special Topics And Readings Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor. May be repeated for credit when the topic varies.
Prerequisites: Departmental consent.

PHILOS 490B Special Topics And Readings Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor. By permission only. May be repeated for credit when the topic varies.
Prerequisites: PHILOS 222, PHILOS 310WI, PHILOS 320WI, PHILOS 321.

PHILOS 490F Special Topics And Readings Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor. By permission only. May be repeated for credit when the topic varies.
Prerequisites: PHILOS 222, PHILOS 310WI, PHILOS 320WI, PHILOS 321.

PHILOS H310 Ancient Philosophy - Honors Credits: 3

PHILOS H321 Honors: Introduction To Ethics Credits: 3

PHILOS H332 Existentialism Credits: 3
A study of the development of existentialism. Selections from the works of such thinkers as Kierkegaard, Nietzsche, Sartre, Heidegger, Camus and other related philosophers are considered. Special attention is devoted to the existential movements in literature, social science and medicine.
Prerequisites: PHILOS 210, PHILOS 222 (or equivalent).

PHILOS H333 Social And Political Philosophy Credits: 3
A consideration of representative views of the place of man in contemporary society. Contributions in psychology, political theory, economics, sociology and anthropology are investigated philosophically with a view toward offering a critical appraisal of the nature of man in the human community. No prerequisites.

PHILOS H370 Environmental Ethics And Policy Credits: 3
Various philosophical approaches to issues such as the value of nature, human obligations to non-human animals, species, ecosystems and future generations; environmental justice; restoration; resource use; environmental politics; and the relation between environmental issues, policy and ethics will be discussed critically.

Physical Education (PHYS-ED)

Courses
PHYS-ED 106 Badminton Credit: 1
This course teaches the basic rules, skill techniques, terminology and strategy for badminton.

PHYS-ED 125 Golf Credit: 1

PHYS-ED 145 Social Dance Credit: 1

PHYS-ED 149 Basketball And Team Handball Credit: 1
This course teaches the basic rules, skill techniques, terminology and strategy for basketball and team handball.

PHYS-ED 153 Volleyball Credit: 1

PHYS-ED 157 Weight Training Credit: 1

PHYS-ED 158 Advanced Weight Training Credit: 1
This course teaches free weight training exercises that are used within a well-balanced training program, and provides experience needed to design weight training programs.
Prerequisites: PHYS-ED 157.
PHYS-ED 159 Jogging Credit: 1
PHYS-ED 174 Cross Training Credit: 1
This course provides knowledge, skill and opportunity to improve primary sport/activity performance or overall fitness, through designing and participating in a variety of cross training physical activities.

PHYS-ED 175 Personal Fitness Credits: 2
This course is designed to expose students to facts about and experiences in dealing with motor, physical, physiological, psychological and nutritional aspects of the human being. Specific areas of study include hypokinetic disease, physical fitness, nutrition and wellness concepts.

PHYS-ED 175L Lifetime Fitness Lab Credit: 1
This course is designed to provide supervised activity experiences including self assessment and self directed physical exercise programs that are coordinated with the lecture portion of the course.

PHYS-ED 180 Beginning Swimming Credit: 1
This course is designed to equip each student with basic water safety skills and knowledge in order to make them reasonably safe while in, on or about the water.

PHYS-ED 181 Fitness Swimming Credit: 1
This course is designed to challenge and encourage each student to develop an individualized fitness program based on personal goals. Lap swimming as well as water exercise will be incorporated in the class.

PHYS-ED 189 Special Topics: Activity Credit: 1
A course designed to deal with a special activity class which is not available in the regular course offerings. Activity class, instructors and prerequisites to be listed in the semester bulletin.

PHYS-ED 189AG Special Topics Credit: 1

PHYS-ED 189AY Special Topics: Activity Credit: 1

PHYS-ED 189BE Special Topics: Activity Credit: 1

PHYS-ED 189KF Special Topics Credit: 1
A course designed to deal with a special activity class which is not available in the regular course offerings. Activity class, instructors and prerequisites to be listed in the semester bulletin.

PHYS-ED 189KT Special Topics: Activity Credit: 1

PHYS-ED 189RC Special Topics: Activity Credit: 1
A course designed to deal with a special activity class which is not available in the regular course offerings. Activity class, instructors and prerequisites to be listed in the semester bulletin.

PHYS-ED 189RT Special Topics: Activity Credit: 1

PHYS-ED 189SC Special Topics Credit: 1

PHYS-ED 189SS Special Topics: Activity Credit: 1

PHYS-ED 189WJ Special Topics: Activity Credit: 1

PHYS-ED 189WM Special Topics: Activity Credit: 1

PHYS-ED 189XX Special Topics: Activity Credit: 1

PHYS-ED 189XY Special Topics: Activity Credit: 1

PHYS-ED 189YO Special Topics: Activity Credit: 1

PHYS-ED 206 First Aid And Safety Credit: 1
Methods of administering first aid in case of accident or sudden illness; bandaging; resuscitation; and caring for wounds and injuries. Safety in schools will be stressed. (Elective).

PHYS-ED 207 Outdoor And Leisure Pursuits Credits: 2
Designed to acquaint students with opportunities for leisure and recreational activity in the outdoors. Emphasizes safety measures and planning skills as well as development of particular movement skills and knowledge about associated wildlife.

PHYS-ED 212 Self Defense Credit: 1
Study in the theory of self defense. Content focuses on: technique for eliminating dangers from daily living, methods for recognizing and avoiding dangers, and skills and strategies for employing physical defense when necessary.

PHYS-ED 300 Mechanical Analysis of Human Movement Credits: 3
Study of the kinesiologic and biomechanical aspects of human motion with focus on application to sport skill, dance and exercise situations. Prerequisites: HLSC 120 and HLSC 160 or equivalent or concurrent enrollment.
PHYS-ED 300L Mechanical Analysis of Human Movement Lab Credit: 1
Lab activities that support the study of kinesiologic and biomechanical aspects of human motion with focus on application to sport skill, dance, and exercise situations.
**Prerequisites:** HLSC 120 and HLSC 160 or equivalent or concurrent enrollment.

**Co-requisites:** PHYS-ED 300.

PHYS-ED 312 Physical Education For Elementary Schools Credits: 2
Identifies physical education needs of elementary school child in relation to his/her total development with emphasis on methods and materials.

PHYS-ED 312L Laboratory Experiences in Physical Educ for the Elementary School Credit: 1
This course consists of laboratory teaching experiences, with skill theme combinations of games, gymnastics, dance fitness.
**Co-requisites:** PHYS-ED 312.

PHYS-ED 323 Nutrition for Fitness and Sport Credits: 3
This course examines the role nutrition, complemented by exercise, may play in the enhancement of fitness and sport performance. Considerable attention will be devoted to the use of nutritional ergogenic aids with reference to athletic performance.
**Prerequisites:** LS-PHYS 217, LS-ANATO 218, LS-ANATO 218L.

PHYS-ED 350 Physiology of Sport and Exercise Credits: 3
Study of the concepts and principles of exercise physiology with the intent of learning how to apply them to exercise, sport and movement experiences. Includes development of fitness testing skills, program planning and exercise.
**Prerequisites:** HLSC 120 and HLSC 160 or equivalent or concurrent enrollment.

PHYS-ED 350L Physiology of Sport and Exercise Lab Credit: 1
Using lab activities, the course uses the concepts and principles of exercise physiology and applies them to exercise, sport, and movement experiences. Includes the development of fitness testing skills, program planning and exercise.
**Prerequisites:** HLSC 120 and HLSC 160 or equivalent (or concurrent enrollment).

**Co-requisites:** PHYS-ED 350.

PHYS-ED 361WI Sociology of Sport and Exercise Credits: 3
The critical examination of the function of sport in the American culture, in an interdisciplinary fashion, with a focus on the contemporary scene. The work of the course will include readings on sociological issues of sport and exercise, the writing of mini-research papers, and a long paper with a presentation. Recommended preparation: Introduction course in sociology.

PHYS-ED 370 Psychology of Sport and Exercise Credits: 3
Exploration of psychological constructs related to the competitive sport process and to physical activity.

PHYS-ED 389 Special Topics In Health And Physical Education Credits: 1-3
This course is designed to offer a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

PHYS-ED 391 Fitness Assessment and Exercise Prescription Credits: 3
This course introduces students to health appraisal and fitness assessment of individuals. The course proceeds with prescribing exercise and conditioning programs, to enhance health and develop physical performance.
**Prerequisites:** PHYS-ED 350.

PHYS-ED 401 Teaching Healthy Behaviors in the Schools Credits: 3
Study of school health and physical activity programs with emphasis on methods and materials for health, safety, and classroom physical activity instruction in grades K-8.

PHYS-ED 401L Health Teaching In The Schools Lab Credit: 1
Students will attain beginning level competence in skills related to teaching health in schools, including planning, preparation and presentation skills. Computer skills will be used to search internet, e-mail, and develop a computer generated presentation.

PHYS-ED 499 Internship Credits: 3-6
Extensive experience in a practical situation under supervision of university faculty and on-site personnel. Breadth and intensity of involvement will depend on student ability. Available only to upper-division majors.

**Physical Sciences (PHY-SCI)**
Courses
PHY-SCI 110 Foundations Of Physical Sciences I Credits: 4
Fundamental principles and concepts of the various physical and mathematical sciences, integrated by the history and philosophy of science.
PHY-SCI 110 - MOTR PHYS 110L: Essentials Physical Sciences w/Lab

PHY-SCI 110L Foundations Of Physical Sciences, Laboratory I Credit: 1
General laboratory and discussion sessions on various topics in the physical and mathematical sciences.
PHY-SCI 110L - MOTR PHYS 110L: Essentials Physical Sciences w/Lab

PHY-SCI 130 Physics of Sports Credits: 3
A course intended for liberal arts students focusing on the physics involved in different sports. Physical laws and technological developments that impact sports will be studied.
PHY-SCI 140 How Things Work Credits: 3
A course intended for liberal arts students focusing on the principles of operations, histories, and relationships of objects from our daily environment. The areas of investigation include mechanical and thermal objects, electromagnetism, light, special materials and nuclear energy.
Co-requisites: PHY-SCI 140L.
PHY-SCI 140L How Things Work Laboratory Credit: 1
Simple experiments based on everyday experiences are analyzed in terms of conceptual physics. The material includes elements of mechanics of a rigid body, elastic properties of matter, fluid dynamics, thermodynamics, electromagnetism, optics and modern physics.
Co-requisites: PHY-SCI 140.

PHY-SCI 150 Astronomy: Motions of the Cosmos Credits: 3
An introductory exploration of modern topics in astronomy with an emphasis on developing conceptual models for the fundamental laws of gravity and motion crucial to the formation of stars and planetary systems, the growth of black holes and galaxies, and the evolution of cosmic structure.
PHY-SCI 153L Introductory Astronomy Laboratory Credits: 2
An introductory exploration of astronomical phenomena and concepts through quantitative laboratory activities requiring data collection, analysis and interpretation. This course is open to students from all majors. Concurrent enrollment in either PHY-SCI 150 or PHY-SCI 155 is encouraged but not required.

PHY-SCI 155 Astronomy: Starlight and Star Stuff Credits: 3
An introductory exploration of modern topics in astronomy with an emphasis on developing conceptual models for the interactions between light and matter crucial to the life and death of stars, the analysis of starlight and interstellar chemistry, and the interpretation of cosmic history.

PHY-SCI 171 Physics For Future Presidents Credits: 3
A course intended for liberal arts students focusing on the physics they need to be informed citizens in a democracy. Energy, global warming, terrorism, and health are examples of the important topics examined from the perspective of how science should inform policy.

PHY-SCI 410A Selected Topics In Contemporary Science Credits: 3
PHY-SCI 410B Selected Topics In Contemporary Science Credits: 3
PHY-SCI 410C Selected Topics in Contemporary Science Credits: 3
PHY-SCI 410P Selected Topics In Contemporary Science Credits: 3
Selected Topics In Contemporary Science
PHY-SCI 410PF Selected Topics In Contemporary Science Credits: 3

PHY-SCI 435 Selected Topics In The History Of Science Credits: 3
Selected Topics In The History Of Science
PHY-SCI 435P Selected Topics In The History Of Science Credits: 3
PHY-SCI 435PF Selected Topics In The History Of Science Credits: 3

Physics (PHYSICS)

Courses
PHYSICS 130 Physics of Sports Credits: 3
A course intended for liberal arts students focusing on the physics involved in different sports. Physical laws and technological developments that impact sports will be studied.
PHYSICS 131L Backyard Physics Credit: 1
This laboratory course uses readily available ingredients to develop a conceptual understanding of the laws of nature and mathematics. Experiments can be conducted in the residence hall, apartment, park or home using everyday, inexpensive equipment and materials.

PHYSICS 140 How Things Work Credits: 3
A course intended for liberal arts students focusing on the principles of operations, histories, and relationships of objects from our daily environment. The areas of investigation include mechanical and thermal objects, electromagnetism, light, special materials and nuclear energy.
Co-requisites: PHYSICS 140L.

PHYSICS 140L How Things Work Laboratory Credit: 1
A course intended for liberal arts students focusing on the principles of operations, histories and relationships of objects from our daily environment. The areas of investigation include mechanical and thermal objects, electromagnetism, light, special materials and nuclear energy.
Co-requisites: PHYSICS 140.

PHYSICS 140L - MOTR PHYS 100L: Essentials in Physics with Lab

PHYSICS 150 Astronomy: Motions of the Cosmos Credits: 3
An introductory exploration of modern topics in astronomy with an emphasis on developing conceptual models for the fundamental laws of gravity and motion crucial to the formation of stars and planetary systems, the growth of black holes and galaxies, and the evolution of cosmic structure.

PHYSICS 153L Introductory Astronomy Laboratory Credits: 2
An introductory exploration of astronomical phenomena and concepts through quantitative laboratory activities requiring data collection, analysis and interpretation. This course is open to students from all majors.

PHYSICS 155 Astronomy: Starlight and Star Stuff Credits: 3
An introductory exploration of modern topics in astronomy with an emphasis on developing conceptual models for the interactions between light and matter crucial to the life and death of stars, the analysis of starlight and interstellar chemistry, and the interpretation of cosmic history.

PHYSICS 171 Physics for Future Presidents Credits: 3
A course intended for liberal arts students focusing on the physics they need to be informed citizens in a democracy. Energy, global warming, terrorism, and health are examples of the important topics examined from the perspective of how science should inform policy.

PHYSICS 210 General Physics I Credits: 4
Introduction to mechanics, wave motion and sound and heat and thermodynamics. Three hours lecture and two hours laboratory per week.
Co-requisites: MATH 110 or MATH 120.

PHYSICS 210 - MOTR PHYS 150L: Physics I with Lab

PHYSICS 220 General Physics II Credits: 4
Introduction to electricity and magnetism, light and optics and modern physics. Three hours lecture and two hours laboratory per week.
Prerequisites: PHYSICS 210.

PHYSICS 240 Physics For Scientists and Engineers I Credits: 5
Introduction to mechanics, wave motion and sound and heat and thermodynamics.

PHYSICS 240 - MOTR PHYS 200L: Advanced Physics I with Lab

PHYSICS 250 Physics For Scientists and Engineers II Credits: 5
Introduction to electricity and magnetism, light and optics and modern physics. Four hours lecture and two hours laboratory per week.
Prerequisites: PHYSICS 240.
Co-requisites: MATH 220.
PHYSICS 310 Mechanics I Credits: 3
Advanced statics and dynamics of particles and rigid bodies including gravitation.
Prerequisites: PHYSICS 220 or PHYSICS 250; and MATH 250 or MATH 268.

PHYSICS 311 Mechanics II Credits: 3
Continuation of Mechanics I, including mechanics of continuous media, Lagrange's equations, tensor algebra and theory of small vibrations.
Prerequisites: PHYSICS 310.

PHYSICS 330 Methods Of Theoretical Physics I Credits: 3
Introduction to mathematical and numerical methods used in the theoretical modeling of physical systems. Treatments of linear systems in scientific and engineering applications will be emphasized.
Prerequisites: MATH 250.

PHYSICS 342 Physics of Science Fiction Credits: 3
This course will quantitatively explore the representation of physics in science fiction books, movies and television shows. Many popular science fiction concepts will be explored, spanning centuries of physics from Galileo to string theory.
Prerequisites: PHYSICS 210 and 220 or PHYSICS 240 and 250; MATH 120 or MATH 125.

PHYSICS 350 Modern Physics With Engineering Applications Credits: 3
An introduction to the theories that revolutionized science and technology in the twentieth century. Topics include special and general relativity, introductory quantum mechanics and atomic structure. Inventions and applications based on these are also examined.
Prerequisites: MATH 210 and MATH 220 and either PHYSICS 210 or PHYSICS 240 and PHYSICS 250.

PHYSICS 353 Practical Astronomy Credits: 3
A practical overview of the basic methods of observational astronomy research, including the principles of telescopes, detectors and measurement theory.
Prerequisites: PHYSICS 240 and PHYSICS 250, MATH 210 or MATH 220.

PHYSICS 355 Stellar Astrophysics Credits: 3
A mathematical and conceptual overview of the observed properties of stars and the fundamental astrophysics of radiative transfer, hydrostatic equilibrium, atomic processes and thermonuclear energy production that govern their structure, atmospheres and remnants.
Prerequisites: PHYSICS 240 and PHYSICS 250, MATH 210 or MATH 220.

PHYSICS 356 Galaxies Credits: 3
A mathematical and conceptual overview of the observed properties and astrophysics of galaxies highlighting star formation and evolution, the interstellar medium, the Milky Way, galaxy populations and demographics, active galactic nuclei, and galaxy formation and evolution.
Prerequisites: PHYSICS 240 and PHYSICS 250, MATH 210 or MATH 220.

PHYSICS 385L Physics of Electronics Credits: 3
An introduction to the solid state physics of basic electronic components and their operation through both theory and practical labwork.
Prerequisites: PHYSICS 220 or PHYSICS 250.

PHYSICS 395L Computer Interfacing Laboratory Credits: 3
An introduction to data acquisition and automation by computer interfacing transduction and control equipment through the serial and parallel buses. The course is multidisciplinary, balancing the physics of transduction to the computer science of automation programming to the electrical engineering of bus protocols. Both high- and low-level programming are taught within the context of automating an experimental procedure. Digital-to-analog and analog-to-digital conversion is also covered.
Prerequisites: PHYSICS 385L.

PHYSICS 410 Thermal Physics Credits: 3
A study of the laws of thermodynamics and their applications, with an introduction to kinetic theory. Statistical methods are emphasized.
Prerequisites: PHYSICS 220 or PHYSICS 250; and MATH 250 or MATH 268.

PHYSICS 420 Optics Credits: 3
Geometrical optics, physical optics and introduction to selected topics in modern optics.
Prerequisites: One year of physics and MATH 210 and MATH 216.

PHYSICS 437 Particle Physics Credits: 3
Essential aspects of modern physics are examined in a historical context, and also in terms of the standard model describing concisely the fundamental interactions among particles. Conservation laws are discussed, and recent developments such as String Theory are considered. Physics 437 is also offered as Physics 5537.
Prerequisites: PHYSICS 240, PHYSICS 250, PHYSICS 350 or PHYSICS 472.
PHYSICS 450 Introduction To Solid State Physics Credits: 3
Crystal structure and binding, elementary lattice dynamics and energy band theory. Free electron models, theory of semiconductors and metals.
**Prerequisites:** PHYSICS 310 or PHYSICS 410.

PHYSICS 460 Electricity And Magnetism I Credits: 3
Static electric fields in free space and material media; Kirchoff's laws and direct current circuits; static magnetic fields.
**Prerequisites:** PHYSICS 220 or PHYSICS 250; and MATH 250 or MATH 268.

PHYSICS 461 Electricity And Magnetism II Credits: 3
Magnetostatics; alternating current circuits; Maxwell's equations and radiation; special relativity; topics in electromagnetism.
**Prerequisites:** PHYSICS 460.

PHYSICS 465 Cosmology Credits: 3
This course provides a foundation in both physical and observational cosmology. Students will acquire both a mathematical and conceptual understanding of the formation and dynamics of the Universe.
**Prerequisites:** PHYSICS 240 and PHYSICS 250, MATH 210 or MATH 220.

PHYSICS 472 Introduction To Quantum Mechanics Credits: 3
Introduction to the theory and applications of quantum mechanics with emphasis on the mathematical treatment of modern physics.
**Prerequisites:** PHYSICS 350.

PHYSICS 476LW Advanced Laboratory Credits: 3
This course offers a selection of important experiments in physics, performed with modern instrumentation. It is designed to give students a deeper understanding of physics and help them develop experimental abilities and improve their communication skills.
**Prerequisites:** RooWriter.

**Co-requisites:** PHYSICS 350.

PHYSICS 490 Special Problems Credits: 1-3
The kind of problem and the amount of credit to be given by arrangement with the department.

PHYSICS 499 Undergraduate Research Credits: 1-3
Independent student research on a physics/astrophysics project under the supervision of a faculty member. Projects will engage students in aspects of the scientific process including data collection and analysis, research methods and strategies, scientific discussion and written/oral communication. Requires a minimum of 3-4 hours of research per week for each credit hour.

PHYSICS H150 Honors: Introduction To Astronomy Credits: 3
Honors: Introduction To Astronomy

PHYSICS H220 General Physics II Credits: 4
Fundamental principles of physics including sound, electricity, magnetism, optics, elementary modern physics, and applications of these principles to different interdisciplinary natural science.
**Prerequisites:** PHYSICS 210 (or equivalent).

PHYSICS H240 Physics For Science And Engineering I Credits: 5
Introduction to mechanics, wave motion and sound and heat and thermodynamics.
**Co-requisites:** MATH 210.

PHYSICS H250 Physics For Science And Engineering II Credits: 5
Introduction to electricity and magnetism, light and optics and modern physics.
**Prerequisites:** PHYSICS 240.

**Co-requisites:** MATH 220.

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**Piano (PIANO)**

**Courses**

**PIANO 100A Preparatory Applied Study Credits: 2**
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

**PIANO 100B Applied Study of a Second Instrument Credits: 2**
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

**PIANO 100C Applied Study for the Non-Music Major Credits: 2**
Applied study for the non-music major. One half-hour lesson weekly. No jury required.
PIANO 101 Freshman Piano I Credits: 2-4
PIANO 101J Freshman Piano I (Jazz) Credits: 2-4
PIANO 102 Freshman Piano II Credits: 2-4
PIANO 102J Freshman Piano II (Jazz) Credits: 2-4
PIANO 201 Sophomore Piano I Credits: 2-4
PIANO 201J Sophomore Piano I (Jazz) Credits: 2-4
PIANO 202 Sophomore Piano II Credits: 2-4
PIANO 202J Sophomore Piano II (Jazz) Credits: 2-4
PIANO 300 Studio Class Credits: 0
PIANO 301 Junior Piano I Credits: 2-4
PIANO 301J Junior Piano I (Jazz) Credits: 4
PIANO 302 Junior Piano II Credits: 2-4
PIANO 302J Junior Piano II (Jazz) Credits: 4
PIANO 401 Senior Piano I Credits: 2-4
PIANO 401J Senior Piano I (Jazz) Credits: 4
PIANO 402 Senior Piano II Credits: 2-4
PIANO 402J Senior Piano II (Jazz) Credits: 4

Political Science (POL-SCI)

Courses

POL-SCI 210 American Government Credits: 3
American government and politics, with special reference to the U.S. Constitution. This course meets the state requirement for study of the U.S. and Missouri Constitutions.
POL-SCI 210 - MOTR POSC 101: American Government

POL-SCI 220 Introduction To Comparative Politics Credits: 3
Introduces students to general concepts of political authority and systematically analyzes the causes and consequences of variation in political institutions, processes and policies across countries, illustrating concepts and themes with case studies of major European and Asian countries.
POL-SCI 220 - MOTR POSC 202: Introduction to Comparative Politic

POL-SCI 221 Introduction to Comparative Politics and Research Credits: 3
This course introduces students to general concepts of political authority, and systematically analyzes the causes and consequences of variation in political institutions, processes and policies across countries. This course also introduces students to research in comparative politics, with students developing an independent research project.

POL-SCI 230 International Relations Credits: 3
An analysis of relations among nations, with emphasis on structures of international power, causes of war, and approaches to peace.
POL-SCI 230 - MOTR POSC 201: International Relations

POL-SCI 301 Western Political Philosophy Credits: 3
An examination of the major theories of politics from Plato to today.

POL-SCI 302 Political Research And Analysis Credits: 3
This class focuses on methods of analysis used in political science research. This course also covers research plans used to gather information about politics and effective ways of utilizing that information. As advances in computing technology expand the availability of politically-driven data, it is possible to bring an increasing amount of information to bear on more questions.
POL-SCI 303 Political Behavior Credits: 3
This course will survey research on conventional and unconventional forms of mass political behavior. Topics to be discussed include campaign participation, voting behavior, public opinion, the media, and participation in protests and revolutions. This course will also cover the methodological approaches to the study of political behavior.

POL-SCI 304 Politics of Developing Countries Credits: 3
The course examines the key arguments that have been advanced to account for differences across countries in rates and levels of economic and political development.

POL-SCI 308 Parties and Interest Groups Credits: 3
Introduction to parties and interest groups in the United States and their important role in the political process. Topics include the formation, organization, activities, and impact of political parties and interest groups in American politics.

POL-SCI 309 Public Opinion Credits: 3
Explores public opinion in the United States, surveying theories and empirical research on the measurement, formation, and distribution of public opinion.

POL-SCI 313 Politics In The American States Credits: 3
A study of the structures, functions, and politics of the institutions of American state governments and an assessment of their role in the federal system. This course is particularly interested in the extent to which political economy and political culture, broadly defined, influence public policy within the states.

POL-SCI 314 Politics of Kansas City Metro Credits: 3
This course will provide an understanding of politics in urban America through a study of metropolitan Kansas City. It will discuss the relationships between local governments, their decision making process, city-county consolidation, structure of regional council of governments, forming political alliances and current political issues affecting the metropolitan area. The course will discuss the politics of issues like transportation, sports facilities, environment and economic competitiveness.

POL-SCI 315 Public Policy Credits: 3
A broad introductory overview of decision theories, governmental structures, and policy processes. Emphasis on the organizational and societal context of public formulation, implementation, and evaluation.

POL-SCI 316 Terrorism And Political Violence Credits: 3
This course explores terrorism and armed struggle from theoretical and historical perspectives, and analyzes a number of violent movements with nationalist, ideological, and religious motivations.

POL-SCI 318 Political Psychology Credits: 3
The field of political psychology is an interdisciplinary field that draws on both psychology and political science to address topics in the political world. This course will focus on a variety of topics including inter-group conflict, stereotyping and prejudice, political socialization, attitude formation and change, political communication, decision heuristics and biases, public opinion, and the future of political psychology.

POL-SCI 319 Campaigns And Elections Credits: 3
This course will examine the role of campaigns in determining the outcome of both congressional and presidential elections and the way that electoral rules structure both campaign strategies and electoral outcomes. This course focuses on topics such as the role of the media, campaign advertising, campaign financing, public opinion, registration requirements, and the role of interest groups.

POL-SCI 326 Racial & Ethnic Politics Credits: 3
This course provides an analysis of the political behavior and roles of racial and ethnic groups in the American political system. Theoretical, empirical, and practical issues of race, racism, and race relations are examined (in the political context). Public policy, electoral behavior, and political institutions are also investigated with regards to the empowerment and political incorporation of communities of color.

POL-SCI 333 Social Networks in Politics Credits: 3
This class focuses on mass political behavior and social networks in the US. Particular attention will be devoted to how relations between individuals can affect political attitudes and participation. We will also consider how these individual relations combine to shape outcomes such as political attitudes, voter turnout, and election outcomes.

POL-SCI 336 American Foreign Policy Credits: 3
Understanding the contemporary debate over American foreign policy in terms of the premises and perspectives of several competing schools of thought.

POL-SCI 343 The Politics Of Social Security Credits: 3
A study of the American Social Security system, including its history, principles, and prospects for the future.

POL-SCI 348 Constitutional Law: The Federal System Credits: 3
A study of the president, congress and state governments from the perspective of the Constitution, emphasizing powers and limitations on the exercise of authority.

POL-SCI 349 Constitutional Law: Civil Liberties Credits: 3
A study of civil liberties in American society, emphasizing factors and forces that restrict or enlarge their scope, as understood through constitutional interpretation.
POL-SCI 357 Western European Politics Credits: 3
This course explores democratic representation and political institutions in Western Europe.

POL-SCI 359 Latin American Politics Credits: 3
In this course we will focus on the major periods in Latin American political history since the Great Depression. This includes the pot-War period of optimism in which democratic governments promoted rapid economic development, the period of pessimism and authoritarianism from the 1960s to the 1980s, and a new democratic renewal beginning in the 1990s. We will examine the consolidating democracies that emerged in the 1990s in depth. We will also examine case studies of recently failed democracy, Venezuela, and ask why this democracy failed.

POL-SCI 360 Labor, Politics and Society Credits: 3
This course explores many aspects of unions and the labor movement in society and the vital role organized labor plays as a pillar of democratic society. Unions impact the economy, growth, and the distribution of wealth, and the impact racial and gender equality, social security health and job safety, energy and the environment, and even foreign relations. As a social movement, labor has had a major impact on American history. This course covers these topics from a labor perspective. It examines current obstacles for union organizing, recent union campaigns, labor's political role, and the relationship between labor and the media. This course is part of the Certificate Program in Labor Studies and is offered on the University of Missouri Interactive Video Network at UMKC, UMSL, and UMC.

POL-SCI 361 Global Issues in a Changing World Credits: 3
Threats to national and international securing were once dominated by military force and interstate warfare. Threats are now seen in a much broader context. Non-state, transnational actors now pose a threat to transnational business, states, and even civilizations. Issues like global climate change and HIV/AIDS are seen as threats to national survival well beyond any single nation's ability to contain. For some, the deep phenomenon of globalization is seen as a threat to national sovereignty and, indeed, a threat to the international system of states. In this course, challenges and opportunities replace threat as the organizing principle, and the role of international institutions takes center stage.

POL-SCI 362 Latin America and International Relations Credits: 3
This course will survey the relations between Latin American states and between Latin America and the world. Taking the Latin American states as the key actors, we examine the history of US-Latin American relations, including current issues such as drug trafficking, immigration and terrorism. We will also study the region as a player on the international stage, examining Latin America's changing role in the world arena related to trade, development, and the environment. Finally we examine the emergence of new leadership in Latin America.

POL-SCI 364 Designing American Elections Credits: 3
This course examines the role of elections in American politics. Topics include voter registration, campaign finance, redistricting, the electoral college, and primary elections. We will also evaluate how different electoral rules affect political outcomes such as voter turnout, participation, and representation.

POL-SCI 365 Congress and Parliaments Credits: 3
The objective of this course is to compare the American Congress to parliaments and legislatures in other countries. The course will examine how elections and institutions affect the behavior of legislators and the policy-making process in many countries.

POL-SCI 366 British Politics Credits: 3
This course focuses on the contemporary politics of the United Kingdom, particularly elections, institutions, and political parties.

POL-SCI 369 Politics Of The Middle East Credits: 3
The course is designed to provide students with a working knowledge of political systems and major political issues in the Middle East and North Africa. Topics to be covered in the course include the question of Middle east exceptionalism, democratization, the effect of religion and identity, political economy of the Middle East, the Arab-Israeli conflict, political violence, and the Arab Spring.

POL-SCI 370 Labor Law Credits: 3
In this course, participants will examine the role of government in the regulation of labor-management relations in the United States. While the focus of the course will be on federal laws regulating private sector labor relations, parallel issues addressed in the Railway Labor Act and state public sector labor relations law will also be covered. Specific topics include the legal framework for the organization of workers, definition of prohibited or unfair labor practices of employers and unions, legal regulation of the collective bargaining process, regulation of the use of economic weapons in labor disputes, enforcement of collective bargaining agreements and the regulation of internal trade union activities.

POL-SCI 380 Political Science And Politics Credits: 1-6
Offered as a special course in the individual faculty member's area of research specialization. The course may be repeated for credit when the topic varies. The topic and instructor will be announced in advance.
POL-SCI 380A Political Science And Politics Credits: 1-6
POL-SCI 380B Political Science And Politics Credits: 1-6
POL-SCI 380C Political Science And Politics Credits: 1-6
POL-SCI 380D Political Science And Politics Credits: 1-6
POL-SCI 380E Political Science And Politics Credits: 1-6
POL-SCI 380X Political Science And Politics Credits: 1-6

POL-SCI 381 Mock Trial Credit: 1
A study of the trial process in the U.S. judicial system focusing on the structure and rules of trials, including the role of attorneys. Combination of student performance with in-class lecture and discussion.

POL-SCI 403 Political Ideology Credits: 3
A critical examination of contemporary political ideologies including democratic and authoritarian theories.

POL-SCI 404 Conflict Resolution and Cooperation Credits: 3
This course examines theories of cooperation in the international system. Students will assess the challenges to international cooperation and the means through which states and non-state actors overcome those challenges. Students will critically evaluate theories of conflict resolution and cooperation, while learning to apply those theories to current events.

POL-SCI 406 Presidential Politics Credits: 3
This course will examine the American presidency as an institution, and will analyze its role in the American political system. It will also consider the administrations of the various presidents.

POL-SCI 407 Congressional Politics Credits: 3
Focus on the U.S. Congress and its role in the political process, surveying theories and empirical research on congressional campaigns, internal procedures, and the relationship between Congress and the other branches of government.

POL-SCI 408 Judicial Politics Credits: 3
An examination of the judiciary in the American political process, emphasizing the role of judges, lawyers and the Supreme Court.

POL-SCI 424 Urban Politics and Community Power Structures Credits: 3
This course surveys and analyzes the literature covering urban politics. Students will gain both a theoretical understanding of and empirical grounding in the politics of urban America. An array of important political, social and economic problems that impact urban politics will be examined.

POL-SCI 425 Seminar in Comparative Politics Credits: 3
A survey of the major research in comparative politics including state building, democracy, economic development, and political violence. **Prerequisites:** POL-SCI 220.

POL-SCI 427 Presidential Power: foundations, Growth, Issues Credits: 3
An intense examination of the growth of presidential power, from its constitutional foundations; the necessity of a strong presidency, but the potential for abuse. Appropriate for the general student, as well as for majors in political science.

POL-SCI 435 Politics Of The Environment Credits: 3
A survey of the political aspects of environmental issues. The course poses the problems of environmental damage and examines actual and proposed policies aimed at addressing them. Also offered through the PACE program.

POL-SCI 440 Contemporary Political Thought Credits: 3
Political philosophy from Nietzsche to today.

POL-SCI 442 American Political Thought Credits: 3
This course will focus on intellectual reactions to the major periods in American history (the movement for independence, the writing of the Constitution, the Jacksonian period, the Civil War debate, the growth of big business, the rise of the positive state and contemporary America). Contemporary theorists will be included along with Adams, Jefferson, Madison, Hamilton, Marshall, etc.

POL-SCI 451 International Politics In Europe Credits: 3
An examination of developments in international politics in Europe since the end of the Cold War. Issues are discussed in the context of relevant theories of international relations.

POL-SCI 452 Concepts in International Relations Credits: 3
This course exposes advanced undergraduate students to major conceptual and theoretical approaches to international relations. **Prerequisites:** Prior course in international relations, politics, economics, or history.

POL-SCI 480 Government And Politics Credits: 1-6
This variable credit course will explore different contemporary issues and problems related to government and politics. Credit may apply to the major but will not satisfy any of the four subfields distribution requirements.

POL-SCI 490 Senior Seminar Credits: 3
A review, analysis and integration of the literatures of the several sub-fields of the discipline. For senior political science majors only. **Prerequisites:** Senior standing.
POL-SCI 491 Internship Credits: 1-6
With the written consent of the department chairman, students may participate in structured internship programs approved by the department for a maximum of six hours.

POL-SCI 492WI Senior Seminar (Capstone) Credits: 3
This intensive survey of political science provides graduating seniors an opportunity for integration and review of their study of political values, behavior, and institutions. Satisfies both writing intensive and capstone requirements.
**Prerequisites:** Senior standing in political science, RooWriter.

POL-SCI 493 Study Abroad Credits: 1-6
With prior approval from the department advisor, students may complete coursework at an approved foreign university and receive up to 6 hours of political science credit.

POL-SCI 497 Political Science Tutorial Credits: 3
Senior political science majors may apply to do independent study under a selected professor. Must have written consent of the professor prior to registration. Only one tutorial will count toward the major.

POL-SCI 498 Honors Tutorial Credits: 1-3
Senior political science majors with a grade point average of 3.4 or above in political science may apply to do independent study under a selected professor. Must have written consent of professor prior to registration. Only one tutorial will count toward the major.

**Psychology (PSYCH)**

**Courses**

PSYCH 151 College Study Skills and Resources Credits: 3
Course helps Propel students develop critical thinking, time management and academic skills, necessary for success in college and future employment. Students will learn about their individual learning styles and skills as well as the academic resources available to help them develop new skills. They will also explore and use various software and apps to help them stay organized and build self-sufficiency.
**Prerequisites:** Propel Student.

PSYCH 152 Developing a Person-Centered Life Plan Credits: 3
In this course students in the Propel Program will develop a person-centered plan that will serve as a foundation for their college experience and their future. The course approaches the topic with the belief that people with disabilities are people first and therefore the person-centered life engages the whole person and ensures person-centered supports.
**Prerequisites:** Propel Student.

PSYCH 153 Communication Skills for Networking, Employment, and Friendship Credits: 3
Through this course, students in the Propel program will gain communication skills, networking skills; learn how to build friendships; and gain important insight on personal safety.
**Prerequisites:** Propel Student.

PSYCH 154 Personal Finance and Disability Services Credits: 3
This course will introduce Propel students to disability services and systems that they will need in their adult lives. A second focus on personal finance will help students understand how disability benefits affect their personal finances.
**Prerequisites:** Propel Student.

PSYCH 155 Developing a Career Credits: 3
Career development is a journey of self-assessment and decision-making. Using an interactive discovery process, students identify possible careers that would match personality type, strengths, interests, skills, and/or values. With Career Center resources, Propel students identify strategies for leveraging the college experience to jumpstart a career.
**Prerequisites:** Propel Student.

PSYCH 156 Transition Skills Credits: 3
Propel students will learn how to identify, report and avoid abuse, neglect, and exploitation. They will also learn about their personal rights, including the right to confidentiality.
**Prerequisites:** Propel Student.

PSYCH 207 Orientation to the Psychology Major Credit: 1
This course provides an introduction to the field of Psychology, and to the Department of Psychology at UMKC. Students will explore major requirements, behaviors associated with academic success, campus resources, and faculty research and teaching interests.
PSYCH 210 General Psychology Credits: 3
A survey of the fundamental principles, theories, and methods of psychological science.

PSYCH 210 - MOTR PSYC 100: General Psychology

PSYCH 252 Psychology of Communicating Your Lived Experience Credits: 3
This course provides frameworks for people interested in communicating their lived experiences with disabilities. This course will not satisfy the College of Arts and Sciences' Social and Behavioral Science distribution or Humanities distribution degree requirements.

PSYCH 253 Disability Civil Rights Movements Credits: 3
A survey of disability civil rights movements. The course includes such topics as institutionalization and deinstitutionalization, education, protests, civil rights advocacy, and the Americans with Disabilities Act. Students will develop a timeline of disability history milestones and conduct oral history interviews with Kansas City area individuals with disabilities.

Prerequisites: Propel Student.

PSYCH 255 Accessible, Inclusive Internships Credits: 3
Through this experiential learning opportunity, students complete an internship with a company, non-profit, governmental or community-based organization. Through a combination of direct observation, reflection, and evaluation, students relate the experience to their academic study and to their career exploration.

Prerequisites: Propel Student.

PSYCH 257 Disability History and Culture Credits: 3
An examination of selected political, cultural, economic and social forces shaping disability from historical and present day perspectives. The course is taught with discussions and reflections with local disability leaders.

Prerequisites: Propel Student.

PSYCH 258 Leadership and Disabilities Credits: 3
Students learn about leadership theories and develop leadership skills as they apply theory to practical situations.

Prerequisites: Propel Student.

PSYCH 270P Compulsive Gambling And Other Addictions Credits: 3
Course will focus on compulsive gambling and the psychology of addiction. Alcohol, drug, food and sex addiction will also be explored. After attending this course, the student will be able to understand the problem gambling continuum, the phases of the problem gambler and how this addiction affects the family.

PSYCH 302 Experimental Psychology Credits: 4
The rationale and methodology of experimentation in psychology, emphasizing interpretation of data and the design of experiments.

Prerequisites: PSYCH 210 with a C- or better.

PSYCH 302WI Experimental Psychology Credits: 4
The rationale and methodology of experimentation in psychology, emphasizing interpretation of data, the design of experiments, and writing. Lecture laboratory each week.

Prerequisites: PSYCH 210 with a C- or better; RooWriter.

PSYCH 304 Learning Credits: 3
Survey course of the fundamental principles of contemporary theories of learning.

Prerequisites: PSYCH 210 with a C- or better.

PSYCH 305 Psychology Of Women Credits: 3
A critical examination of studies of the psychology and behavior of women.

Prerequisites: PSYCH 210.

PSYCH 307 Academic and Career Opportunities in Psychology Credits: 2
This course explores post-BA career options for students majoring in Psychology. Students will examine psychology-related career opportunities with a bachelor's degree, and options for psychology-related careers after earning a graduate degree. Emphasis will be placed on students developing academic plans that will prepare them for professional success.

Prerequisites: PSYCH 207 (or co-requisite) and PSYCH 210 with C- or better. Must be Psychology BA major and have completed a minimum of 15 credit hours.

PSYCH 308 Sensation and Perception Credits: 3
The study of how we perceive the world through our senses, including the anatomy and function of the sense organs and the effect of normal and altered sensory experience on behavior.

Prerequisites: PSYCH 210 with a C- or better.
PSYCH 311 Applied Psychology Credits: 3
The major applications of scientific psychology to human problems and behavior, such as business, mental health, and education are covered. May not be taken for graduate credit.
Prerequisites: PSYCH 210.

PSYCH 312 Social Psychology Credits: 3
Survey of behavior in the actual, imagined, and implied presence of others, including attitudes, the self, conformity, altruism, aggression, prejudice, and group processes. May not be taken for graduate credit.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 316 Quantitative Methods In Psychology Credits: 3
Introduction to the use, calculation, reporting, and interpretation of descriptive and elementary inferential statistical techniques in psychological science. Prerequisites: PSYCH 210 with a C- or better, and MATH 110 or higher.

PSYCH 320 Ethnic and Minority Perspectives in Psychology Credits: 3
The theory, methods and content of psychology relevant to the interests and needs of ethnic minorities, and the contributions of ethnic groups and other minorities to psychology.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 322 Child Psychology Credits: 3
Survey of child development from conception to adolescence, including major theories, developmental milestones and research related to the physical, cognitive, social and emotional growth of children. May not be taken for graduate credit.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 323 Theory and Methods of Personality Credits: 3
The development, organization, dynamics and determinants of personality. May not be taken for graduate credit.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 328 Psychology Of Human Sexual Behavior Credits: 3
The psychological, biological and social factors that contribute to human sexuality, and a review of human sexual development across the lifespan.
Prerequisites: PSYCH 210.

PSYCH 331 Introduction to Health Psychology Credits: 3
A survey of the role of psychological factors in physical health and well-being including in health promotion, disease prevention, and adjustment to illness.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 405 Motivation and Emotion Credits: 3
A review of the principles of both human and animal motivation from classical drive, behavioral, and cognitive perspectives. May not be taken for graduate credit.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 406P Developmental Disabilities And Community Life Credits: 4
Focus is on developmental disabilities in community life and interdisciplinary process as a means of coordinating services and supports in community settings. Students will learn about specific disciplines and professions and how they must work together in the community. Topics include the State developmental disabilities network and service system, the principles of person-centered planning, the effects of severe disability on families, and the dynamics surrounding community inclusion of persons with severe disabilities.

PSYCH 415 History And Systems Of Psychology Credits: 3
The historical development of the field of psychology, including a review of its major theoretical schools and methodological advances.
Prerequisites: PSYCH 302WI and PSYCH 316 (C- or better).

PSYCH 418 Brain and Behavior I Credits: 3
Introduction to the neural bases of human behavior, including movement, learning and memory, sensation and perception, emotion, cognition, psychological, and neurological disorders.
Prerequisites: PSYCH 210 with a C- or better.
PSYCH 419 Biopsychology II Credits: 3
Advanced study of the neural bases of behavior.
Prerequisites: PSYCH 418.

PSYCH 433 Abnormal Psychology Credits: 3
Introduction to major psychological problems and disorders as well as consideration of some of the many interacting biopsychosocial influences viewed from an empirically-informed perspective. May not be taken for graduate credit.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 440 The Psychology Of Aging Credits: 3
Survey of concepts, theory, and methods in the psychology of aging, including biological and social influences on behavior.
Prerequisites: PSYCH 210.

PSYCH 441 Adult Development and Aging Credits: 3
Major developmental theories of adult development and aging are reviewed, including the impact of cohort, gender, race/ethnicity, socioeconomic status, and culture on development.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 450 Special Topics Credits: 1-3
Offered as the result of student demand, specialized faculty interests, or the availability of a visiting expert in a field related to psychology.

PSYCH 453P Family Life Cycle: Dev Approach Understanding Family Dynamic Credits: 4
The primary purpose of this course is to enhance the student's understanding of the dynamics of healthy families. After receiving a historical overview of the development of families and the cultural roots and traditions behind family structures, child-rearing values and other factors, the student will be given a framework to understand how healthy families establish a dynamic balance between individual and group needs, and between needs to establish structure and to be flexible in the face of change. A second framework will also be presented to provide students with an understanding of how families use their internal resources to cope with life stressors. Given these basic cultural, interactional, and coping frameworks as foundation for understanding, students will explore how families change as they move through time from formation as a couple through early child-rearing, adolescence, mid-life, and post retirement. Implication for human service professionals will be presented.

PSYCH 461 Field Practicum Credits: 1-6
Provides supervised human services experience in an external community agency or organization that addresses human or social problems.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 461A Field Practicum Credits: 4
Provides supervised experience working in community agencies/organizations which address various human and social problems. A minimum of ten hours per week at practicum site and class attendance are required.
Prerequisites: PSYCH 302WI; at least 15 credit hours of psychology.

PSYCH 490 Directed Individual Research Credits: 1-6
Students work on an individual research project under the supervision of a departmental faculty member.

PSYCH 491 Psychology Research Externship Credits: 1-6
Provides supervised research experience in an external community agency or organization that examines basic or applied research questions.
Prerequisites: PSYCH 210 with a C- or better.

PSYCH 495WI Contemporary Issues in Psychology Credits: 3
In-depth analysis of a contemporary issue in psychology. Emphasis will be placed on reading and writing about empirical approaches to contemporary challenges in psychological science.
Prerequisites: PSYCH 210 and PSYCH 302 both with a C- or better; Roo Writer.

PSYCH H210 General Psychology Credits: 3
A survey of the fundamental principles, theories, and methods of psychological science.

Public Administration (PUB-ADM)

Courses
PUB-ADM 410 Research Methods In Public Administration Credits: 3
This introductory course focuses on quantitative empirical research design and statistical analyses in relation to public administration issues and concerns.
Prerequisites: Admission to MPA 5 year program.
PUB-ADM 420 Urban Environmental Policy Credits: 3
Our cities are a first line of action in our efforts to sustain our environment. Many have begun to examine and address the connection between city problems and environmental and climate change, and the disproportionate impacts that they often have on the disadvantaged, yet these initiatives address only the surface of the issue. It is essential for scientists, public administrators, environmentalists, and policy thinkers to pay greater attention to the environmental challenges of our cities. Students examine and assess the challenge of understanding, developing and implementing coherent environmental policy to address such challenges in urban communities.

PUB-ADM 421 Managing for Sustainability in an Urban Environment Credits: 3
Managing for sustainability requires an understanding of theories of organization, environmental management, and sustainability, including how to define and achieve sustainability. Students examine the complexities associated with issues of sustainability and the interrelationship between the global, the local and the personal. This includes consideration of how organizations function, the obstacles to sustainability confronted by sustainability managers, and specific management strategies and tools available to sustainability managers. It also involves the study of change models and their application by managers faced with the challenge of moving an organization from an old operational model to a more sustainable new organizational design.

PUB-ADM 422 Ethics for Nonprofit and Public Administrators Credits: 3
It is essential that organization and community leaders and managers understand the imperatives of ethical practice and ethical leader and manager behavior in nonprofit and governmental settings. Students are prepared to identify and assess the ethical implications of management and policy alternatives, to spot ethical issues before they become crises, and to competently and confidently develop and implement ethical decisions and actions in policy and practice. The ethical dimensions of democracy, political loyalty, pressure politics, interest group issues, pluralism, diversity and multi-cultural challenges, corruption and evil, honesty, the limits of ethical codes, whistle-blowing are included.

PUB-ADM 448 Leadership For Public Service Credits: 3
The two core purposes of this course are for students to learn about effective and ethical leadership, and for students to understand and develop their own capacity for leadership. The course is organized around three general themes: 1) leadership as relations with subordinates, including issues of work motivation; 2) leadership as lateral relations, including organizational politics and conflict management and resolution; and 3) leadership as influence in the organization’s environment.
Prerequisites: Admission to MPA 5 year program.

PUB-ADM 455 Non-Profit Leadership Issues Credit: 1
Focusing on leadership issues in nonprofits, this course will explore issues in an intensive seminar format (fifteen class hours). Topics include building and renewing nonprofit boards, and the power of diversity in nonprofit organizations. Recommended for nonprofit management students.

PUB-ADM 455B Non-Profit Leadership Issues: Board-Staff Relations Credit: 1

PUB-ADM 487 Special Topics Credits: 3
Special topics in public administration.

PUB-ADM 495 Voluntarism, Philanthropy & The Non-Profit Sector In The U.S. Credits: 3
This course provides a survey of the origins, development and contemporary functioning of the private, nonprofit sector in the U.S. The course explores theories and concepts that describe the social, political, legal and economic meaning of voluntarism, philanthropy and the nonprofit sector

PUB-ADM 497 Special Topics In Public Administration Credits: 1-3
Study and research in areas of special interest under individual faculty direction.
Prerequisites: senior standing.

PUB-ADM 497B Special Topics In Public Administration Credits: 1-3

PUB-ADM 598E Supervised Research: International Management Credits: 1-6

Public Health (PBHL)

Courses

PBHL 158 Public Health Principles Credits: 3
This course will introduce the student to the core functions of public health, the ten essential services, core public health competencies, and the difference between population-based and individual health services. Through case studies and practice-related exercises, students will examine current health trends and issues applying a public health perspective.

PBHL 245 Qualitative Research Methods for Public Health Credits: 3
This course explores the basics of qualitative research within public health and the community. The course will examine the definitions and methods of qualitative research. Research questions asked by qualitative researchers will be explored. The course will also introduce basics of qualitative research design, data collection, and qualitative analysis in public health. The relationship between qualitative and quantitative research, as well as mixed methods research, will be discussed.
Prerequisites: PBHL 158.
PBHL 335 Historical and Contemporary Issues in Public Health Credits: 3
This course examines the historical and present day roles and responsibilities of public health policy, practice, and professionals. Students will review and discuss successes and failures of public health practitioners and their impact on community health outcomes. Topics such as chronic, infectious and communicable diseases, urban crowding, environmental changes, immunizations, food production methods, increased global mobility, the persistence of poverty, mental health, and violence and injury prevention will be discussed.
Prerequisites: PBHL 158.

PBHL 358 Environmental Public Health Credits: 3
In this course, students will explore environmental factors affecting public health. Students will be introduced to public health and the food industry, vector control and disease, chemical and biological hazards found in the environment, and their impact on population health. During the course students will learn how environmental health policy decisions have the potential to impact the health of the population.
Prerequisites: PBHL 158.

PBHL 445 Core Competencies in Health Education Credits: 3
This course is designed to enforce the core areas of responsibility required to become a professional health educator. Course content will include the skills required to assess needs, assets and capacity for health education, plan, implement, and evaluate health programs, administer and manage health education programs, serve as a resource person, and communicate and advocate for health and health education. Students will begin preparing for the certification exam offered through the National Commission for Health Education.
Prerequisites: PBHL 158 (PBHL Major and Minor Students); HLSC 310 and HLSC 430 (PBHL Major Students).

PBHL 458 Communicable Disease Investigation Credits: 3
This course will introduce students to communicable disease control and investigation. Throughout the course, students will learn how to identify outbreaks, explore disease investigation tools, and identify disease causes. Students will investigate the spread of disease among humans, animals, and the environment. The history of disease containment, evolution of disease control, and specific interventions developed to protect the public will be explored.
Prerequisites: PBHL 158, HLSC 410.

PBHL 496 Evidence-Based Public Health Capstone & Seminar Credits: 6
This course provides an experience-based capstone project for the senior student. Within the context of public health, the student will complete an evidence-based service learning, research, or problem-based project under the guidance of a site supervisor within the agency or organization, and a BSPH faculty member. The capstone will include a seminar session where students and faculty share learning, information, and understanding of their experience in a public health.

Reading (EDRD)

Courses
EDRD 439 Language & Literacy across the Disciplines Credits: 3
Principles and application of disciplinary literacy in the middle and secondary classroom. Class will be primarily composed of discussion and lecture. As a part of the course, teacher candidates will inquire into and analyze disciplinary practices in 5-12 schools.
Prerequisites: Admission to teacher education program.

Real Estate (RL-EST)

Courses
RL-EST 321 Real Estate Principles Credits: 3
The student will be introduced to the very basics of real estate from the terminology, real estate’s role in the economy, legal foundations, government controls, appraisal processes, valuation processes, brokering and closing transactions, time value of money, basic management issues and lease clauses, and basic standard form purchase contracts.
RL-EST 322 Real Estate Principles II Credits: 3
This practical course is designed to build upon the terminology and professional obligations learned in Principles I. The purpose of this course is to introduce the student to the basic concepts of real estate and provide initial exposure to the real estate profession. Completion of the course will provide students with a better understanding of the complexity and breadth of the real estate industry.
Prerequisites: RL-EST 321 or ENT 321.

RL-EST 421 Real Estate Finance Fundamentals Credits: 3
This course will provide a fundamental understanding of basic financial concepts of real estate including compounding and discounting, construction of amortization tables and after-tax yield analysis for a simple real estate investment. It also touches on the basics of title insurance, ownership issues, fixed rate verses variable rate mortgages in residential real estate, understanding housing bubbles, and trends in valuation of residential real estate. In addition, the student will complete mathematical comparisons of leasing versus owning a home.
Prerequisites: FIN 325.
RL-EST 425 Principles of Real Estate Property Management Credits: 3
Explores the complexities of managing apartments, condominiums, office buildings, industrial property, and shopping centers. This course covers rental markets, development of rental schedules, leasing techniques and negotiations, repairs and maintenance, tenant relations, merchandising, selection and training of personnel, accounting and owner relations.

RL-EST 496 Internship: Real Estate Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community. Internship coursework is evaluated on a credit/no credit basis.

RL-EST 497 Special Topics: Real Estate Credits: 1-3
Study and research in areas of special interest under individual faculty direction.
Prerequisites: senior standing.

**Religious Studies (RELIG-ST)**

**Courses**

RELIG-ST 100 Introduction To Comparative Religion Credits: 3
An introduction to the major religious traditions of the world and small group or tribal religions. Emphasis on the comparative study of selected myths, rituals, types of religious specialists, and types of religious communities.

RELIG-ST 100 - MOTR RELG 100: World Religion

RELIG-ST 306 History of Christianity to the Middle Ages Credits: 3
This course examines the historical and theological development of Christianity from its origins to the High Middle Ages. The main themes follow the mechanisms and conditions shaping Christianity's expansion into a major social, institutional, and intellectual force with a focus on patterns of crisis and reform. This course is based on the study of primary sources (both texts and objects) and modern scholarship.
Cross Listings: HISTORY 306A.

RELIG-ST 307 History of Christianity from Middle Ages to Present Credits: 3
This course examines the historical and theological development of Christianity from the High Middle Ages to the present. The main themes follow the mechanisms and conditions shaping Christianity's expansion into a major social, institutional, and intellectual force with a focus on patterns of crisis and reform. This course is based on the study of primary sources (both texts and objects) and modern scholarship.
Cross Listings: HISTORY 307A.

RELIG-ST 400 Special Topics In Religious Studies Credits: 1-3
Special topics in religious studies which are not offered regularly. The focus of the course varies by semester and instructor.

RELIG-ST 400A Special Topics In Religious Studies Credits: 1-3
RELIG-ST 400B Special Topics In Religious Studies Credits: 1-3
RELIG-ST 400C Special Topics In Religious Studies Credits: 1-3
RELIG-ST 400D Special Topics In Religious Studies Credits: 1-3
RELIG-ST 400E Special Topics In Religious Studies Credits: 1-3
RELIG-ST 400F Special Topics in Religious Studies Credits: 1-3

RELIG-ST 401 Religion in America Credits: 3
An in-depth examination of selected aspects of the history of religions in America from the colonial periods to the present. Special emphasis will be given to methodological issues in the study of American religious history.

RELIG-ST 402 Religion and Colonialism in Latin America Credits: 3
The study of selected aspects of the history of religions in the Americas. Primary focus is on the complex ways that European, Native American, and African religions helped to structure and negotiate the experiences and the significance of cultural contact and colonialism through lived worlds of meaning.

RELIG-ST 403 Vision, Dreams and Prophesies as Religious Phenomena Credits: 3
This course explores the ways visions, dreams, and prophesies have acquired religious significance in Western and non-Western contexts from the ancient period to the present.

RELIG-ST 404 Gender and Religion Credits: 3
Cross-cultural and comparative study of how religious groups create and transmit gender roles and expectations.
RELIG-ST 467 Myth And Ritual Credits: 3
Myth and "ritual" have long been fundamental categories in the study of religion. This course will briefly survey some of the major theories and approaches to the study of myth and ritual from the Enlightenment to the present. The course will not only trace the shifting meanings of "myth" and "ritual", but will critically evaluate the utility of diverse approaches to the study of religious phenomena designated by these terms. Reading will include theoretical works, as well as selected case studies.

RELIG-ST 484 Sacred Narratives and Texts Credits: 3
This course addresses the "social lives" of sacred narratives and texts in selected religions of the world. Areas of study include methods of exegesis in different religious traditions, orality and literacy (including the reoralization of written text), the canonization process, text as amulets, reading and meditative practices and techniques, and narratives and the arts. The course is comparative, cross-cultural, and interdisciplinary in nature.

RELIG-ST 487 Contemporary Approaches to the Study of Religion Credits: 3
This course which is the second installment in a two course series, charts the historical development of religious studies as an academic discipline, paying particular attention to the models, methods and assumptions that have informed it past and present. In this course, particular emphasis will be placed upon the ways the objects and aims of religious studies have shifted from the Second World War to the present.

RELIG-ST 493 Sex & Religion: The Erotic & The Anti-Erotic In Comparative Persp Credits: 3
This course is designed to highlight issues related to the various ways in which religions of the world have integrated, embraced, or repressed one of the most basic human experiences sexual expression.

Cross Listings: RELIG-ST 5593.

RELIG-ST 494RS Death In The History Of Religions Credits: 3
As a biological "fact," death would appear to be a human universal. Yet, human beings have imagined--and, thus experienced--the meaning of death in many diverse ways in different cultures and over time. This course explores the conceptualization and representation of death and dying, as well as the ritual activities surrounding death, found in selected religious communities. The goal is to gain insight into how people have sought to (re) create a world of meaning in the face of death and to gain a critical perspective on our own contemporary situation.

RELIG-ST 495RS Time And Space In The History Of Religions Credits: 3
Time and space are essential components of the lived worlds of human beings, yet the cultural and historical constructions of these are remarkably diverse and, moreover, are subject to change. This course is a cross-cultural, interdisciplinary, and comparative exploration of the constructions and experiences of time and space found in selected religious communities and historical periods. In addition, it investigates the pivotal role the categories of "sacred and profane time and space" have played in theorizing religion and in the study of religious myths and rituals in the modern period.

RELIG-ST 496RS The Body In The History Of Religions Credits: 3
The human body is the site of extensive imaginal and ritual activities in all religious traditions. This course explores some of the diverse ways religious communities have imagined and experienced the human body, as well as how the body had been manipulated and worked on in an effort to transform the human situation in the world.

RELIG-ST 497RS Special Topics And Readings Credits: 1-6
Intensive reading and/or research in an area selected by the student in consultation with the instructor. May be repeated for credit when the topic varies.

Saxophone (SAXOPH)

Courses
SAXOPH 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

SAXOPH 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

SAXOPH 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.
SAXOPH 101 Freshman Saxophone I Credits: 2-4
SAXOPH 101J Freshman Saxophone I (Jazz) Credits: 2-4
SAXOPH 102 Freshman Saxophone II Credits: 2-4
SAXOPH 102J Freshman Saxophone II (Jazz) Credits: 2-4
SAXOPH 201 Sophomore Saxophone I Credits: 2-4
SAXOPH 201J Sophomore Saxophone I (Jazz) Credits: 2-4
SAXOPH 202 Sophomore Saxophone II Credits: 2-4
SAXOPH 202J Sophomore Saxophone II (Jazz) Credits: 2-4
SAXOPH 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

Co-requisites: Enrollment in lessons.

Cross Listings: SAXOPH 5300.

SAXOPH 301 Junior Saxophone I Credits: 2-4
SAXOPH 301J Junior Saxophone I (Jazz) Credits: 4
SAXOPH 302 Junior Saxophone II Credits: 2-4
SAXOPH 302J Junior Saxophone II (Jazz) Credits: 4
SAXOPH 401 Senior Saxophone I Credits: 2-4
SAXOPH 401J Senior Saxophone I (Jazz) Credits: 4
SAXOPH 402 Senior Saxophone II Credits: 2-4
SAXOPH 402J Senior Saxophone II (Jazz) Credits: 4

Sociology (SOCIOL)

Courses

SOCIOL 101 Sociology: An Introduction Credits: 3
An introduction to the study of society and the basic concepts of sociology.
SOCIOL 101 - MOTR SOCI 101: General Sociology

SOCIOL 201 Introduction To Social Psychology Credits: 3
Exploration of the relationships between human behavior and social context. The course focuses on how realities are socially constructed and sustained, the role of symbol systems, definitions of the situation, the self as a product of interaction, and the relationship between language, thought and culture.

SOCIOL 203 Social Problems Credits: 3
An examination of major social problems of modern Western society, including issues of racial conflict, war, civil rights, youth movements, the mass media, urban poverty, and crime. The topics will vary from year to year depending upon the instructor.

SOCIOL 211 Social And Psychological Development Through The Life Cycle Credits: 3
A survey of significant psychosocial issues, events and crises throughout the human life span. The life cycle of the family is examined as the primary context within which individual development occurs. Although the primary emphasis will be on normal adjustment and development, attention will also be given to the occurrence of special problems and deviations at each life stage.

SOCIOL 263 Introduction to Statistics in Sociology/Criminal Justice Credits: 3
A first course in the statistical analysis of quantitative data. Course emphasizes descriptive statistics, probability theory, parameter estimation, bivariate hypothesis testing, and computer applications.

Prerequisites: MATH 110 or higher.

SOCIOL 300 Special Topics in Sociology Credits: 1-3
Each time this course is offered, a different area of sociology, to be announced, will be given. On demand.

SOCIOL 300A Special Topics in Sociology Credits: 1-3
Each time this course is offered, a different area of sociology, to be announced, will be given.
1982 Sociology (SOCIOL)

SOCIOL 302 Social Stratification Credits: 3
The distribution of power, privileges and prestige are examined in a historical and comparative perspective. The process whereby distribution systems develop, become institutionalized, and become transformed are analyzed.

Cross Listings: ANTHRO 302.

SOCIOL 306 Culture, Emotion, and Identity Credits: 3
This course introduces students to some of the key theoretical perspectives and debates within the field of psychological anthropology. By drawing upon cross-cultural studies of emotion, personhood, sexuality, illness, and consciousness it seeks to understand some of the ways that culture and society influence human psychology and experience.

Cross Listings: ANTHRO 306.

SOCIOL 308 The Social Life of Things Credits: 3
This course examines the connections between people and things. It explores how social relationships are created and changed through the use and exchange of objects, and how objects themselves take on particular meanings and values in these processes.

SOCIOL 310R Families And The Life Course Credits: 3
This course is an upper level introduction examining the sociological, historical, and social psychological research on the family, focusing primarily on the United States. The course examines families of varied ethnicity, as well as family compositions at different stages of the life course. Emphasis is placed on the interdependence of family members, as well as how society and policy influence the family.

SOCIOL 313R Sociology Of Gender Credits: 3
This course is an introduction to the sociological study of gender in contemporary U.S. society. Special attention is directed to how gender is experienced inter-sectionally with other social categories, including social class, race, sexuality, and age.

SOCIOL 316 Sociology Of Death And Dying Credits: 3
Examination of attitudes, behaviors and institutions related to death and dying in contemporary American society. Topics include the status of death in American society, effects of the setting on dying, interaction with the dying, funeral practices, bereavement customs, surviving spouse, and suicide.

SOCIOL 317 Policies Of Drug Use And Control Credits: 3
Utilizing both historical and contemporary information, this course provided an assessment of the "drug problem" in the U.S. and policies of control developed in response to the problem. Drug use criminalization, legalization, medical treatment and prevention strategies and related issues are considered in regard to scientific knowledge related to the patterns, causes and impact of substance abuse.

SOCIOL 318 Sociology Of The Aging Woman Credits: 3
An exploration of the intersection of gender and aging issues with special attention to cultural images of women, the development of self-concept and identity in mid-life and beyond, caring roles in the family, work and retirement, and health and mental health issues. These issues are examined within the context of social class, race, and ethnicity. Implications for community programs and social policy are considered.

SOCIOL 319 Theoretical Criminology Credits: 3
A comprehensive examination of the major criminological theories, their philosophical assumptions, and the sociohistorical context in which they were articulated.

SOCIOL 320 Social Deviance Credits: 3
The dominant sociological perspectives on deviance will be discussed with special attention given to the processes that define behavior and persons as deviant and the impact of such definitions on social relationships and identity.

SOCIOL 322 Race And Ethnic Relations Credits: 3
The nature, origin and dynamics of ethnic and race relations in the U. S. and other societies. Specific attention will be given to the historical and contemporary contexts of prejudice discrimination and confrontation.

SOCIOL 324 Diversity And You Credits: 3
This course will examine diversity from the perspectives of race, ethnicity, class and gender. Emphasis will be placed on the impact of racism, classism and sexism on interpersonal relationships and strategies to encourage diversity in schools, neighborhoods, and the work place. Students may also enroll in "directed research" in conjunction with his course.

Cross Listings: ANTHRO 324.

SOCIOL 326 Consumer Society Credits: 3
This course explores the emergence of Consumer Society as both a sociohistorical development and as an object of social scientific inquiry. Students will explore how the study of Consumer Society has been animated by different scholarly questions, debates, and analytic approaches.

Cross Listings: ANTHRO 326.

SOCIOL 327 US Government's Indian Policies: Practices Of A Colonizing Nation Credit: 1
This class will convey information about the implementation of US government policies toward American Indians and how each of the policies, from treaty making, establishing reservations, removing, confronting tribes militarily, and abolishing reservations through allotment resulted in consequences detrimental to tribal welfare. The colonization process created ramifications and consequences that Indian people contend with to this day. This class will provide a historical overview of the consequences associated with political, social, and economic processes that divested Indian people of control over their lives and land they originally lived on.

Cross Listings: ANTHRO 327.
SOCIOL 328 Body and Society Credits: 3
Body and Society is an interdisciplinary and comparative approach to the study of the body as the subject and object of social processes. Interdisciplinary approaches to topics such as meaning, ritual, performance, and practice will provide a framework for classical as well as contemporary explorations of bodily representation and experiences across a variety of cultural contexts.

Prerequisites: ANTHRO 103.

SOCIOL 329 The Imagery Of The American Indian In Film Credit: 1
This course will trace the imagery of the American Indian used by film makers through the years and how this has played a role in reinforcing certain inaccurate perceptions of American Indian cultural, social, and economic life. The course examines the sociological implications created by persistently showing misrepresented images of American Indians. The goal is to measure and compare the reality of American Indian life (values, Traditions, and beliefs) with the images created by film makers from the early years of the 20th century to the present.

Cross Listings: ANTHRO 329.

SOCIOL 332 Sociology Of Political Life Credits: 3
The concept of power, community power structure and decision making. The social basis of liberal democracy; consensus and legitimacy, political stability and instability. Power and politics in a mass society; elites and masses; democracy and oligarchy; alienation; bureaucracy; pluralism and totalitarianism. Ideology and social movements.

SOCIOL 333R Introduction To Social Work: Principles And Practice Credits: 3
An introductory course to social work, its history and current role in the delivery of social welfare services. Designed to give the student insight into the body of knowledge, theory, values, principles, and techniques of the social work process. Investigation into the varieties of practice methods, i.e., casework, group work, community organization, and the present trend toward the generic approach.

SOCIOL 334 Society And Community Service Credits: 3
This course explores the history and increasing importance of the non-profit sector and volunteerism. Applying theoretical approaches from development and community organizing, the course analyzes the uses of volunteerism and NGOs nationally and internationally. Students’ understanding will be enhanced through the inclusion of applied methods needed to manage a non-profit organization and by serving in an internship in a local non-profit during the semester.

SOCIOL 335 Community Development In Urban America Credits: 3
The focus in this course is on experiential learning in which the student participates in several urban community development projects that allow for learning about collaboratives, networking, problem-solving, and requisite skills to successfully manage a project. Principles of community development are presented to give the student background for understanding the projects visited.

SOCIOL 336 The World of Latino Youth and Adolescents in the U.S. Credits: 3
This course will provide a general introduction and in-depth understanding to the largest group of racial/ethnic adolescents in the United States: Latino youth. An historical examination of Latino youth will provide a better understanding of their present status, with emphasis on their contact and interactions within social institutions. Additionally, students will analyze the experiences Latino youth have within and among other groups in the broader social context based on past, present, and possible future interactions.

Cross Listings: LLS 310.

SOCIOL 337 American Indian Leaders: Past And Present Credit: 1
This course will examine the definition of leadership as it relates to American Indian issues. Consideration will be given to the nuances of leadership by examining the social, cultural economic, and political situations that gave cause for particular individuals to assume roles of Indian ranks with those practiced by non-indian leaders. It will trace the evolving nature of leadership within tribal nations and American Indian communities from past to present, as well as looking at Indian leadership roles in time of war and peace. Lives of the major characters of American Indian historical record will be reviewed, such as Geronimo, Crazy horse, Sitting Bull, Osceola, Tecumseh, Pontic, Black Hawk, Quannah Parker, and Captain Jack.

Cross Listings: ANTHRO 339.

SOCIOL 338 The American Indian Image: Stereotype Vs. Reality Credit: 1
This class will take a historical, sociological, and cultural approach to review how society at large views American Indians. The course will trace the origin and continued use of American Indian stereotyped views, and assess the sociological and psychological complications that result when judging Indians solely on stereotyped imagery. The course will review the historical content of American Indian life as portrayed in early plays, films, and newspaper accounts and compare these stereotyped images with the reality of American Indian life by providing a depiction of a series of historical events that will offer a more balanced and accurate consideration for American Indian life past and present.

Cross Listings: ANTHRO 347.

SOCIOL 339 Latinx Immigrants, Migrants, and Refugees in the U.S Credits: 3
This course addresses the culture of societies of U.S. citizens, immigrants, and refugees of Latin American heritage living in the U.S. The course emphasizes recent anthropological, historical, cultural, and sociological studies.
SOCIOL 351 Gender, Work And Social Change Credits: 3
This course examines the role of gendered work and consumption in global social change. Drawing from sociological perspectives on gender and work, this course foregrounds a global comparative analysis of societal development and working contexts, including tourism employment, sex work, domestic work, and agricultural, garment, and informatics production. Academic-service learning constitutes a primary course assignment.

SOCIOL 357 Social Movements Credits: 3
This course focuses on the link between social movements and political change in the modern world. Social movements arise outside official channels and against established political orders. Students will develop an understanding of the relation between social mobilization and institutional change in various countries, especially in the United States.

SOCIOL 358 Culture and Society Credits: 3
This course examines the "culture concept" at the heart of the contending theories of society, which is used to describe a society or way of life, a whole social order, or particular aesthetic styles and objects. The course links these various topics together in a concluding section on culture in the age of the Internet and globalization.

SOCIOL 361 Social Theory Credits: 3
A survey of the major orientations in social theory, their historical development, and contemporary issues and controversies in social theory. Recommended preparation: A course in social science.

SOCIOL 362 Methods Of Sociological Research Credits: 3
Experimental and observational schemes; survey analysis; interview and questionnaire designs; scaling techniques; sampling. Recommended preparation: A course in Social Science.

SOCIOL 390R Directed Field Experience I Credits: 1-6
The student will work within one or more social agencies or organizations in the city under the joint supervision of a professional within the organization and a member of the Sociology Department. In-class discussion will cover the major problems of social organization.

SOCIOL 391 Directed Field Experience II Credits: 1-6
A continuation of SOCIOL 390R.

SOCIOL 397 Independent Readings In Sociology Credits: 1-3
Intensive readings in an area selected by the student with prior consultation with instructor. Recommended preparation: Twelve hours of sociology coursework.

SOCIOL 398 Independent Research In Sociology Credits: 1-6
Intensive research in an area selected by the student with prior consultation with instructor. 
Prerequisites: Twelve hours of sociology.

SOCIOL 404WI The Sociology Capstone: Senior Seminar Credits: 3
A seminar which explores the interrelationships between sociology theory, research methods and statistics. May focus on major contemporary issues building on and integrating knowledge obtained in previous courses. 
Prerequisites: SOCIOL 362, RooWriter.

SOCIOL 410R Aging In Contemporary Society Credits: 3
Attitudes and stereotypes, the status of the aged in American society; the social psychology of the aging process; the response of societal institutions such as the family and political system to the aging of the population as a whole. Applications and potentials of research are considered.

SOCIOL 411 Sociology Of Human Sexuality Credits: 3
A cross cultural examination of the most fundamental dichotomy in human society: male and female. Considering sex both as a biological and social category, this course compares diversity and similarity in the interrelationships of male and female in patterns of behavior and social organization found in human societies across time and space.

SOCIOL 418 Feminist Theories Credits: 3
This class introduces the major feminist theories and their primary authors over the last 200 years. The class takes both a historical view (beginning with two millennia of male-centered theories about women) and a conceptual approach (theories are grouped by common ground) and familiarizes the student with both the historical processes that necessitate feminist theories as well as with the breadth and depth of the historically and currently available scholarship. 
Prerequisites: WGS 201.

SOCIOL 431 Social Organization Of The City Credits: 3
An examination of the social structure of the American city with special reference to the historical development of American cities. Attention will be focused on the role of social institutions as they have changed in relation to urban problems.

SOCIOL 433 Immigration and the City Credits: 3
This course examines key issues and controversies in immigration research. Special attention will be paid to the social, economic, and historical developments of urban immigrant communities.
SOCIOL 434 Spatial Thinking in Social Science Credits: 3
This course will review ways in which social scientists have incorporated the concepts of space, place, and distance into their theories and research. Readings will be drawn from interdisciplinary work in the areas of urban sociology, criminology, health and demography that deal with spatial organization of communities and cities, spatial disparity of health and crimes, and mobility.
Prerequisites: junior, senior, or graduate standing.

SOCIOL 440R Sociology Of Medicine Credits: 3
Relationship of basic concepts in sociology to health and medical care. Cultural and class variations in health status. Social and cultural aspects of health. Recommended preparation: A course in social science.

SOCIOL 441 Globalization and Development Credits: 3
Focuses on issues of economic development, social stratification, political institutions, and political mobilization in societies where colonialism provided the context for their long-term disadvantages in the international economic order. Specific attention is paid to the intersection of the international components that define the options and limits for societal development (e.g., market shifts, international institutions and contracts, foreign policies, and migration) and the distinct social, political and cultural implications of these factors for developing societies.
Cross Listings: ANTHRO 441.

Spanish (SPANISH)

Courses

SPANISH 110 Elementary Spanish I Credits: 3
The goals of this course are an ability to speak and to understand simple (spoken) Spanish as well as to read and write simple prose.
SPANISH 110 - MOTR LANG 103: Spanish I

SPANISH 120 Elementary Spanish II Credits: 3
Continuation of SPANISH 110.
Prerequisites: SPANISH 110.

SPANISH 120 - MOTR LANG 104: Spanish II

SPANISH 211 Second Year Spanish I Credits: 3
Further development of comprehension and communicative skills in the language. Readings of moderate difficulty and grammar review. Practice in writing. The goal is attainment of intermediate proficiency in the language.
Prerequisites: SPANISH 120.

SPANISH 216 Spanish For The Health Sciences Credits: 3
This course will enable the student to converse with Hispanic patients and/or hospital personnel in situations such as admissions, patient care, lab work as ordered by a physician or dentist, emergency room procedures, etc. In addition, medical readings in Spanish will give professional and paraprofessional students an increased vocabulary related to the many fields within the health sciences. This course will satisfy one semester of the AS language requirement.
Prerequisites: One year of college Spanish.

SPANISH 221 Second Year Spanish II Credits: 3
Continuation of SPANISH 211.

SPANISH 280 Special Intermediate Spanish Topics I Credits: 2-4
Instruction of Spanish on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit.
Prerequisites: Elementary I and II college-level courses.

SPANISH 290 Special Intermediate Spanish Topics II Credits: 2-4
Continuation of SPANISH 280. May not be repeated for credit.

SPANISH 301 Introduction To Literary Studies Credits: 3
Emphasis will be placed on the study of literary theory and the philosophical ideas behind the literary movements, their relations and differences. A representative work or works of each genre will be thoroughly studied and analyzed. Critical reports will be written about different features of the literary works under consideration. Strongly recommended for all majors, to be taken before 400-level literature courses.
Prerequisites: SPANISH 315.
SPANISH 315 Intermediate Conversation And Composition I Credits: 3
Grammar review, practice in speaking and writing Spanish; emphasis on idiomatic usage and practical vocabulary. Required for major.
Prerequisites: SPANISH 221.

SPANISH 325 Intermediate Conversation And Composition II Credits: 3
Continuation of SPANISH 315. Required for major.
Prerequisites: SPANISH 315.

SPANISH 350 Continental Spanish Civilization Credits: 3
General cultural characteristics of Spain. Readings from representative literary works.

SPANISH 351 Latin American Civilization Credits: 3
Historical development of Latin America. Readings from representative literary works.

SPANISH 365 The Search For Mexican Identity Credits: 3
The goal of the course is to familiarize the student with the poignant search for self awareness and definition witnessed in the letters and fine arts of Mexico in the 20th-century. Readings will include works by Vasconcelos, Reyes, Ramos, Paz, Rulfo and Fuentes, and will be complemented by slide presentations of pertinent works by major artists.

SPANISH 373 History Of Spanish Literature I Credits: 3
A study of the development of Spanish peninsular literature from the Middle Ages to 1700.
Prerequisites: SPANISH 315 SPANISH 325.

SPANISH 374 History Of Spanish Literature II Credits: 3
A study of the development of Spanish peninsular literature from 1700 to present.
Prerequisites: SPANISH 315 SPANISH 325.

SPANISH 380 Special Topics Credits: 1-3
Treatment of a particular genre or area of literature or language normally not offered through regular courses. May be repeated for credit when the topic changes.

SPANISH 383 Introduction To Spanish American Literature I Credits: 3
The colonial period. Selected readings in historical and literary material from the time of the conquest to the period of struggle for independence.
Prerequisites: SPANISH 315.

SPANISH 384 Introduction To Spanish American Literature II Credits: 3
The 19th and 20th-centuries. Selected readings from prose and poetry of Spanish-American writers.
Prerequisites: SPANISH 315.

SPANISH 385 Commercial Spanish Credits: 3
Business practices in correspondence in the Spanish language; special vocabulary of business, trade, banking and administration. Refinement of grammatical and stylistic skills. Subjects treated include price inquiries, quotations, offers, orders, complaints, administrative, banking and diplomatic correspondence.
Prerequisites: SPANISH 221.

SPANISH 403 History of the Spanish Language Credits: 3
An introduction to the history of the Spanish language from Latin to the present, with an overview of dialects in the Peninsula and in the Americas.
Prerequisites: SPANISH 325 or higher grammar class.

SPANISH 414 Early 20th Century Peninsular Literature: From the Generation of 1898 to Surrealism Credits: 3
Selected readings in Spanish narrative, poetry, drama and philosophical essay from the beginning of the 20th Century to the Avant-Garde movements in the 1930's.

SPANISH 415 Advanced Conversation And Composition I Credits: 3
Continued practice in speaking and writing Spanish, with attention to the elements of style. Continued in SPANISH 425. First semester required of all majors and second semester recommended. Both semesters required of prospective high school teachers. Either or both semesters may be repeated with the consent of the instructor and the Spanish section head. No more than six hours credit may be applied towards a degree.
Prerequisites: SPANISH 325.

SPANISH 416 Medieval Spanish Literature Credits: 3
From the Cantar de Mio Cid to 1499.

SPANISH 417 Spanish-American Lyric Poetry Credits: 3
A survey of poetry in Spanish America from Colonial times to World War II, including a study of the most representative poets and their writings.

SPANISH 418 Romantic Movement In Spain Credits: 3
The origin and development of romantic literature against the historical and ideological background of the first half of the 19th century. Various literary genres will be studied; these will include works by Rivas, Espronceda, Larra, Zorrilla, Gil y Carrasco, Becquer and others.
SPANISH 420 Cervantes' Don Quijote, Part I Credits: 3
An intensive reading of the first part of Cervantes' novel, Don Quijote.

SPANISH 421 Cervantes'Don Quijote, Part II Credits: 3
An intensive reading of the second part of Cervantes' novel, Don Quijote. Part One is not a prerequisite.

SPANISH 425 Advanced Conversation And Composition II Credits: 3
Continuation of SPANISH 415. See SPANISH 415. Required for teacher certification in Spanish.
Prerequisites: SPANISH 415.

SPANISH 426 Golden Age Drama Credits: 3
The development of the Spanish drama from Lope's youth to the death of Calderon.

SPANISH 427 Pre-Columbian And Spanish Colonial Literature Credits: 3
A study of the pre-Columbian works in drama, narrative, and poetry (Popol Vuh, Apu-Ollantay, Incan and Aztec poetry) leading into a survey of Spanish-American colonial literature.

SPANISH 428 Contemporary Spanish Poetry Credits: 3
A comprehensive and intensive study of 20th-century Spanish poetry. Poets and poetry will be studied in the light of literary movements, foreign influences, political tendencies and philosophical ideas.

SPANISH 429 The Novel Of The Mexican Revolution Credits: 3
The revolution as the principal focus of 20th-century Mexican fiction. The course will examine both the evolving understanding of the event/process and the sophistication of narrative technique employed in its presentation. Among the writers to be studied are Azuela, Guzman, Lopez y Fuentes, Yanez, Revueltas, Rulfo and Fuentes.

SPANISH 430 Spanish Mysticism Credits: 3
An examination of the development of mysticism in Oriental and Occidental civilizations, with emphasis on the great periods of mystic experience as reflected in the literary production of the Spanish Golden Age. Readings could include the works of Fray Luis de Granada, Fray Luis de Leon, Saint John of the Cross and Saint Teresa of Avila.

SPANISH 431 The Golden Age Novel Credits: 3
A study of major prose works of the Golden Age. Possible topics include authorship, innovative narrative techniques, textual strategies and metafiction issues. Readings could include works by Alfonso Martinez de Toledo, Diego de San Pedro, Fernando de Rojas, Francisco Delicado, Cervantes, and Lope de Vega.

SPANISH 432 Pastoral Literature Credits: 3
A study of the development of pastoral literature during the Spanish Golden Age. Possible texts: Juan del Encina’s Eclogues, Montemayor’s Los siete libros de la Diana and Cervantes’ Galatea. These works will be examined within their historical and cultural context.

SPANISH 433 Cervantes’ Exemplary Novels Credits: 3
A study of Cervantes’ Exemplary Novels within the context of 17th-Century Spain. Attention will be paid to interpretive possibilities and how knowledge of historical contexts might influence readings of this rich and varied cultural output.

SPANISH 434 The Picaresque Novel Credits: 3
A study of the development of picaresque fiction during the Spanish Golden Age. The course deals with novelists principally active during the Baroque period such as Mateo Aleman, Francisco Lopez de Ubeda, Miguel de Cervantes, and Francisco de Quevedo.

SPANISH 435 Peninsular Poetry Credits: 3
This course is a survey of poetics and poetry in Spain from the Reconquest to the present, with emphasis on socio-historical contexts and movements. It examines theoretical and methodological approaches to literary analysis and also provides practical experience in exploring poetic texts. Students will analyze a wide spectrum of poems, while discussing the cultural, philosophical, linguistic, political and ethical considerations that surround the reception of a text.

SPANISH 436 Spain’s Transition to Democracy: Literature and Film Credits: 3
This course reviews the cultural production between the death of Francisco Franco in 1975 and the entrance in the European Union in film, literature and music, within its historical and political context.

SPANISH 450 Modern Classics Of Latin American Literature Credits: 3
The goal of the course is to familiarize the student with the principal Latin American writers of the modern period. The focus will be dual: the progressive sophistication of literary technique and the refinement of social conscience. Among the authors to be studied are: Asturias, Borges, Carpenter, Cortazar, Donoso, Fuentes, Garcia Marquez, Paz, Rulfo and Vargas Llosa.

SPANISH 453 Spanish-American Short Story Credits: 3
A study of Spanish-American short stories from Romanticism to the present.

SPANISH 460 U.S.-Latino Literature Credits: 3
An interdisciplinary approach to U.S.-Latino Studies, including both literary and cultural texts. The course will be taught in English, the language in which the texts are produced.
SPANISH 480 Special Topics Credits: 1-3
Each time this course is offered a particular genre or area of literature will be treated. Topics will be announced in advance. May be repeated for credit when the topic changes.

SPANISH 490 Special Readings Credits: 1-3
Intensive readings in field or literary figure to be selected by the student in consultation with the instructor. Available, by permission only, to advanced students of Spanish; available only when student cannot take regularly scheduled courses.
**Prerequisites:** 3.0 GPA.

SPANISH 499 Senior Seminar (Capstone) Credits: 3
Required for major. Covers seminal works of Peninsular and Latin American literature in their historical and cultural context. Course content varies, but will include such elements as geography, politics, folklore, history of the language, architecture, art and music. To be taken during final Fall Semester of residence.
**Prerequisites:** 18 hours beyond first year.

**Special Education (EDUC-SP)**

**Courses**

EDUC-SP 407 Educating Exceptional Children And Youth Credits: 3
An introductory course in special education concerning issues, theories, and practices for educating the exceptional student in both general and special classrooms or settings; identification and educational intervention procedures for children and adolescents with exceptionalities, including behavior disordered; learning disabled, mentally retarded, speech impaired; visually impaired, physically impaired, hearing impaired, multihandicapped and gifted.

**Statistics (STAT)**

**Courses**

STAT 235 Elementary Statistics Credits: 3
An introduction to descriptive and inferential statistics. Organization and presentation of data, averages and variations, elementary probability, random variables, special discrete distributions, normal distributions, sampling distributions, point estimation, confidence intervals, and hypothesis testing.
**Prerequisites:** MATH 110 (C- or higher), or ALEKS assessment score of 61% or higher.

STAT 436 Introduction To Mathematical Statistics I Credits: 3
Sample space, conditional probability, random variables, probability distribution functions and probability densities; transformations of random variables, mathematical expectation, conditional distributions and expectations, laws of large numbers and limit theorems, applications.
**Prerequisites:** MATH 250.

STAT 441 Introduction To Mathematical Statistics II Credits: 3
Sampling Distributions; point estimation; internal estimation; hypothesis testing; analysis of variance; nonparametric methods; statistical software applications; topics in Applied Statistics.
**Prerequisites:** STAT 436.

STAT 496 Internship/Practical Training in Mathematics or Statistics Credits: 1-3
This course provides an internship or other practical training arrangement using mathematics or statistics in an industrial, academic or other professional setting. Department approval of internship experience or practical experience required. Repeatable with up to a combined 3 credits toward the major.
**Prerequisites:** MATH 250.

**String Bass (STR-BASS)**

**Courses**

STR-BASS 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

STR-BASS 100B Applied Study Of A Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

STR-BASS 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.
STR-BASS 101 Freshman String Bass I Credits: 2-4
STR-BASS 101J Freshman St Bass I (Jazz) Credits: 2-4
STR-BASS 102 Freshman String Bass II Credits: 2-4
STR-BASS 102J Freshman St Bass II (Jazz) Credits: 2-4
STR-BASS 201 Sophomore String Bass I Credits: 2-4
STR-BASS 201J Sophomore St Bass I (Jazz) Credits: 2-4
STR-BASS 202 Sophomore String Bass II Credits: 2-4
STR-BASS 202J Sophomore St Bass II (Jazz) Credits: 2-4
STR-BASS 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

Co-requisites: Enrollment in lessons.

Cross Listings: STR-BASS 5300.

STR-BASS 301 Junior String Bass I Credits: 2-4
STR-BASS 301J Junior St Bass I (Jazz) Credits: 4
STR-BASS 302 Junior String Bass II Credits: 2-4
STR-BASS 302J Junior St Bass II (Jazz) Credits: 4
STR-BASS 401 Senior String Bass I Credits: 2-4
STR-BASS 401J Senior St Bass I (Jazz) Credits: 4
STR-BASS 402 Senior String Bass II Credits: 2-4
STR-BASS 402J Senior St Bass II (Jazz) Credits: 4

Teacher Education (TCH-ED)

Courses

TCH-ED 130 Number Systems and Related Topics Credits: 3
This course is designed for elementary perservice teachers to meet certification requirements for a course in number theory. The course provides a constructive development of the real number system, introduces concepts from elementary number theory and applies this knowledge of quantitative systems to solve various types of problems. Recommended preparation: High School Algebra and Geometry.

TCH-ED 140 Geometry for Elementary Teachers Credits: 3
This course is designed for elementary preservice teachers to meet certification requirements for a course in geometry. It provides a constructive development of axiomatic geometry and introduces concepts from transformation geometry. Elements of spatial sense and measurement are included and an emphasis is placed on applying this knowledge to solve various types of problems. Recommended preparation: High School Algebra and Geometry.

TCH-ED 150 Foundations of Urban Education Credits: 3
This course is designed to introduce students to the social and philosophical issues in urban education and will include an emphasis on culture, race, class, and ethnicity as they relate to schooling in urban America.

TCH-ED 151 Introduction to Urban Education Field Experience Credits: 2
Introduction to Urban Education Field Experience. The field experience is intended to give students an opportunity to see the application of learning theory in authentic classroom situations. Students are encouraged to become involved in the learning of the classroom and provide a helping hand to the teacher.

TCH-ED 152 Urban Education Seminar 1: Social Justice Credits: 2
Introductory seminar to the field of urban education. This seminar aligns with the other fall semester experiences and allows students an opportunity to dialogue about the possible application of their experience work as it applies to teaching in an urban school. Students will be introduced to current topics in education and society; identify, develop and enhance study strategies; observe, listen and think critically, sharpen writing skills; and work effectively in groups.

TCH-ED 153 Math Methods for Urban Education teachers: Number Systems Credits: 2
Designed for elementary school teacher. A constructive development of the real number system beginning with the system of whole number, concepts for the elementary number theory; applications of quantitative systems to problems in discrete mathematics.

TCH-ED 160 Introduction to Teaching Credits: 3
Introduction to the historical, social and philosophical dimensions of teaching. Prospective teacher candidates gain greater insight into the commitment, purpose, and responsibility associated with professional teaching practice. Particular focus is place on productive teaching practices and the habits of mind of expert teachers.
TCH-ED 201 Children's Literature Credits: 3
This course emphasizes the critical analysis and selection of a variety of genres of multicultural children's literature in order to create "windows and mirrors" (Bishop, 1990) through literature for diverse educational settings. It will emphasize the skills and dispositions needed to share literature with culturally and linguistically diverse groups of children and explore prevalent myths and stereotypes in society that are often reflected in children's and young adult literature.

TCH-ED 202 Literature for Adolescents Credits: 3
Focus upon literature for adolescents and ethnic literature, specifically, and upon the special reading interests of the adolescent in relation to the methods and materials of reading in grades 6-12, generally. Attention to literature selection standards, censorship, individualized instruction, and literary theory.

TCH-ED 251 Child and Adolescent Development for Urban Educators Credits: 3
This course is designed to provide students with the information they will use as educators to design developmentally appropriate practices for the children they will work with in the classroom setting, thus discussions about how the information is translated into the classroom will be applied.

TCH-ED 252 Field Exp: Child/Adolescent Development Credit: 1
This field experience is designed in conjunction with TCH-ED 251 to provide students with real-world interactions to study the development of children from birth to adolescence. Field experience settings have been arranged to provide students with an opportunity to observe and interact with children as they study the four stages of development.

TCH-ED 253 Urban Education Seminar II: Social Justice Credit: 1
This seminar aligns with the other semester experiences and allows students an opportunity to dialogue about the possible application of their experience work as it applies to teaching in an urban school. Students will be introduced to current topics in urban education and society; identify, develop and enhance study strategies; observe, listen and think critically, sharpen writing skills; and work effectively in groups as they explore social justice and the relationship between society and schools.

TCH-ED 254 Math Methods for Urban Teachers: Geometry Credits: 2
Designed for elementary school teachers. A constructive development of geometry and concepts from elementary teacher education; applications will be made to connect with elementary curriculum.

TCH-ED 255 Integrated Music and Visual Arts Credits: 3
Basic principles of creativity and their application in the multicultural teaching of art, creative dance and musical and rhythmic interpretation will be explored. An emphasis is placed on interrelationship of these disciplines and their integration into the curriculum. Special emphasis will be placed on helping students to develop a wider and more respectful understanding of our nation's cultural diversity as reflected in all art forms. Students will be exposed to the literature, poetry, theater, visual art and music contributed by African-Americans, Hispanic Americans and Native Americans among other.

TCH-ED 256 Field Experience: Music and Visual Arts Credit: 1
The field experience is intended to give students an opportunity to see the application of learning theory and integration of the arts in authentic classroom situations.

TCH-ED 258 Math Methods for Urban Teachers: Probability and Statistics Credits: 2
Designed for Elementary and Middle School Teachers. This course is designed to provide undergraduate students in elementary and middle school mathematics with the foundational knowledge of the teaching of probability and statistics and how to use the elements of statistics to interpret and solve problems in elementary and middle school classrooms.

TCH-ED 259 Introduction to Urban Teaching Credits: 3
This course is designed to introduce students to the sociopolitical context of urban education, schooling, teaching and learning. It will provide an overview of education in a multicultural democracy, mostly African Americans, Latino Americans, and other racial/ethnic groups and immigrants. Specifically, it will introduce students to the notion of teaching for social justice, the social justice teacher and social empowerment. Opportunities will be provided for students to review research, debunk stereotypes, negative views, and to recognize urban learners as capable, motivated, and resilient. The ultimate goal of this course is to facilitate experiences that will enable students to develop the knowledge, skills and dispositions needed for learning in urban schools.

TCH-ED 265 Field Experience: Urban Teaching Credit: 1
As a co-requisite to Introduction to Urban Teaching, students will spend 60 hours in urban schools working with diverse student populations, specifically; students will work with African Americans, Latino Americans, and English Language Learners grades K-8. Reflection and discussion of clinical experiences will occur during the urban education seminar and introduction to urban education classes. Students will keep a reflective journal of their experiences working with diverse learners.

TCH-ED 266 Urban Education IV: Classroom Management Credit: 1
This course will present the foundations for developing expertise in classroom management. Theory and activities will introduce students to strategies and procedures to manage student's behavior as well as keep them on task throughout the school day. The intent of this course is to provide the prospective teacher with the skills and the expertise necessary to manage the classroom behavior of students effectively while creating a caring and supportive atmosphere.
TCH-ED 300 Summer Community Experience Credits: 3
This course provides an in-depth examination into both the evolution of ghetto communities and dynamics of community building in inner cities, with special emphasis on Kansas City, Missouri. In addition, theories of educational psychology as well as child and adolescent behavior will be infused to assist participants in developing age appropriate mentoring/teaching strategies and activities.

TCH-ED 310 Classroom Climate and Organization Credits: 3
This course is focused on understanding classroom practices that support student cognitive and social development, that supports learning for students from diverse cultural and experiential backgrounds; and developing a well-organized, attractive and functional physical space for learning.

TCH-ED 311 Curriculum and Learning Theory Credits: 4
Focus on classroom organization, building relationships with students, and applying theoretical knowledge of child development to the analysis of contexts impacting students’ educational experiences. Classroom processes and teacher interactions that undergird effective instruction and proactive classroom management.

TCH-ED 312 Legal and Ethical Aspects of Teaching Credits: 3
This course provides an introduction to landmark court cases, federal and state laws, and regulations that frame students’ and teachers’ rights and responsibilities and that provide guidance for ethical professional practices.

TCH-ED 314 Cultural Diversity and Teaching English Language Learners Credits: 3
Foundational knowledge on teaching diverse populations and practical instructional approaches for meeting the needs of linguistically and culturally diverse learners. Emphasis on studying and applying instructional strategies that are appropriate for addressing the unique needs of children whose primary language may not be English.

TCH-ED 315 Assessment and Data Literacy Credits: 3
Data collection and assessment strategies—including formative, summative, formal, and informal—to be used in developing student learning profiles, planning learning experiences, and monitoring student progress toward academic goals. Topics include the impact of assessment on equitable education for diverse learners, critical observation and questioning, basic qualitative and quantitative data analysis, working with data teams, collaboration/communication with families and other educational stakeholders, setting and monitoring learning goals, and the ethics of data collection and sharing.

TCH-ED 316 Reading and Language Arts I Credits: 4
This course emphasizes learning theories and methods for teaching and assessing literacy. It will primarily focus on the components of a culturally responsive literacy curriculum for elementary students in diverse, urban contexts. This course is field-based and there will be multiple opportunities for observing, teaching, and assessing elementary school children.

Co-requisites: TCH-ED 397.

TCH-ED 317 Reading and Language Arts II Credits: 4
This course emphasizes methods for elementary literacy instruction and assessment. The course will primarily focus on the components of a culturally responsive writing curriculum for elementary students in diverse, urban contexts. This course includes a supervised field experience where teacher candidates implement literacy assessment and instruction with students.

Prerequisites: TCH-ED 316.

TCH-ED 318 Literacy Assessment and Instruction Credits: 3
Focus on using formal and informal assessments to design appropriate literacy instruction for diverse learners in urban elementary classrooms.

TCH-ED 330 Analyzing Learning Environments in Urban Contexts Credits: 3
This course serves as the major vehicle for articulating a programmatic construction of classroom management as establishing productive learning environments, facilitating social interaction, and planning relevant and engaging learning experiences based upon deep knowledge of individual students’ contexts and cultures. Co-requisites: TCH-ED 422.

TCH-ED 333 Learning Environments: Birth to Grade 3 Credits: 3
Course provides an analysis of learning environments (community, school, and classroom) as socio-emotional and physical spaces that nurture learning and development of early childhood learners in urban settings. Teacher candidates use the analysis to frame the design of learning environments as context and content of meaning making.

TCH-ED 350 Multi-Media Production For The Classroom Credit: 1
An introductory course in the media production techniques involving knowledge and practical use of computers, scanners, digital video, digital audio and graphics to create professional multimedia for use in the classroom. The class is designed for prospective and current classroom teachers.

TCH-ED 351 Literature for a Lifetime Credits: 6
This course will provide students with an encompassing survey of fiction and non-fiction literature appropriate for all age ranges from the young child to adult. Lectures and discussions will focus on the value of literature as a tool for thinking, as a way of illuminating modern life, as a means of understanding history and human behavior, and as a source of aesthetic pleasure and lifelong enjoyment. Students will learn how to select and critique both the media used in illustrated books and the literacy techniques and forms of the many genres of literature. In this course special emphasis will be placed on literature that reflects life in many cultures and periods of history, in particular from those racial and ethnic sources that make modern America such a pluralistic and diverse society. There will also be an emphasis on the universal themes that run through literature of the societies.
TCH-ED 365 Seminar in Teacher Identity, Power and Privilege Credit: 1
Focus on developing teacher candidates’ knowledge of themselves and their roles in facilitating learning for diverse student populations. Acquaints pre-service teachers with three areas of multicultural education: knowing one’s self, knowing diverse student populations, and knowing effective practices which will accelerate the learning of the diverse student populations.

TCH-ED 366 Field Experience: Literacy Credit: 1
Students will spend 100 hours working in an urban school classroom. Students will have the opportunity to apply learning and lessons designed in the semester’s pedagogical courses, particularly Integrated Instruction: Language Arts and Social Studies. Students will work with their seminar leader, having the opportunity to be observed and conference about their teaching.

TCH-ED 385 Teaching and Learning with Technology Credits: 3
This course addresses the fundamentals of using technology in education and planning instruction to engage PK-12 students in problem solving and critical thinking using technology. Topics within the course are informed by International Society for Technology in Education Standards (ISTE), InTASC Model Core Teaching Standards and Learning Progressions for Teachers 1.0, Missouri Teacher Standards and Quality Indicators, and Missouri Learning Standards.

TCH-ED 396 English Language Study for Middle and High School Teachers Credits: 3
Explores the fundamentals of teaching English language and grammar study, emphasizing patterns in the English language including sounds, words, sentences, meaning, and discourse as they are manifested in daily lives. Educationally relevant topics, such as applications of sociolinguistics to the teaching of English language and literature, varieties of grammar, and linguistic descriptions of styles and registers are an integral part of the course.

TCH-ED 397 Practicum I · Elementary Credit: 1
The overarching goal for this introductory field experience is to help teacher candidates shift their perspectives from that of a student to that of a classroom teacher. Emphasis is on observing the relationship among students’ experiences within and outside of school, and planning specific learning experiences for academic and social growth and development. Additionally, teacher candidates attend to the individual student’s responses to learning experiences, as well as the social dynamic among students as they work together in a classroom.

TCH-ED 398 Practicum II – Elementary Credit: 1
This field experience is part of Block 2—the second field experience within a four-block sequence. The overarching goal is for teacher candidates to observe the implementation of the school curriculum in specific disciplines. Topics include the structure of the discipline, interrelatedness among basic concepts, discipline specific practices, and the design of instruction to facilitate deep learning.

Prerequisites: TCH-ED 397.

TCH-ED 399 Continuous Enrollment Credit: 1
A practicum experience for students delaying student teaching for one semester.

TCH-ED 400 Child Development Credits: 3
Intellectual and social development from birth through adolescence and their implications for the educative process.

TCH-ED 402 Integrated Arts Credits: 3
Basic principles of creativity and their application in the multicultural teaching of art, creative dramatics, creative movement and musical rhythmic interpretation will be explored. An emphasis will be placed on the interrelationship of these disciplines and integration into the curriculum.

TCH-ED 403 Educational Psychology Credits: 3
This course will provide an introductory examination of psychological research and theory which have implications for, and applications to learning and instruction in interactive social contexts, such as classrooms.

TCH-ED 404 Education of the Exceptional Child and Youth Credits: 3
Students will be introduced to identification and educational intervention strategies for educating exceptional children and adolescents in inclusive classroom situations. This course requires a 10-hour field experience.

TCH-ED 405 Practicum I Credit: 1
Taken in conjunction with elementary and middle school methods courses. Students are expected to spend 60 hours at classroom sites throughout the semester.

TCH-ED 406 Practicum II: Elementary Credit: 1
Taken in conjunction with elementary courses. Students are expected to spend 60 hours at classroom sites during the semester.

TCH-ED 407 Practicum III · Elementary Credit: 1
Taken in conjunction with the elementary courses. Students are expected to spend 60 hours at classroom sites during the semester.

TCH-ED 408W Advanced Foundations Credits: 3
The course will concentrate on the development of a philosophical, historical and social model to assist in understanding the complexities, strengths and problems of present day education.

Prerequisite: RooWriter.
Prerequisites:

TCH-ED 409 Curriculum and Assessment Credits: 3
Curriculum and Assessment is the first of a three-part course sequence designed to assist the preservice teacher in acquiring the knowledge and skills to become an effective practitioner in a world of constant change. The preservice teacher in turn will become a professional educator and facilitator of learning by developing an understanding of the varied roles and relationships that are an integral part of the teaching/learning process. This course focuses on the meaning of curriculum, the role of standards in curriculum design and implementation, the role of assessment is used to effectively enhance instruction and student learning.

TCH-ED 410 Teacher in the Classroom Credits: 2
This is the second of a three-part sequence designed to assist the preservice teacher in acquiring the knowledge and skills to become an effective practitioner in a world of constant change. The preservice teacher in turn will become a professional educator and facilitator of learning by developing an understanding of the varied roles and relationships that are an integral part of the teaching/learning process. It is designed to assist preservice teachers in not only make the transformation from to student to professional educator, but also in developing the knowledge, management, and reflective skills to implement a well-planned and effective curriculum that meets the needs, interests challenges and lives of students who live in and will function in an increasingly culturally diverse, democratic society in an interdependent world.

TCH-ED 412 Language Arts in the Elementary and Middle School Credits: 3
Provides instruction in planning, implementing and assessing language arts activities. Critical analysis in classroom settings is emphasized. Other issues discussed include: literature-based instruction, multicultural perspectives, special needs students and professional behaviors.

TCH-ED 413 Mathematics in the Elementary School I Credits: 3
Mathematics-specific pedagogy. Methods, techniques, tools and materials for the effective teaching of mathematics. Focuses on the principles, methods, and materials of elementary school mathematics instruction and state curriculum in the context of diverse student backgrounds.

TCH-ED 414 General Methods Elementary and Middle - 3 Credits: 2
To summarize and synthesize the pre-service educational experience. To become knowledgeable about the realities of a school life in a "real" classroom.

TCH-ED 415 Reading I: Intro to Literacy and Reading Instruction Credits: 4
This course introduces concepts about literacy processes; i.e., social, cultural, cognitive and linguistic foundations of reading and writing processes. The major focus of the course is on learning components of a comprehensive reading curriculum, and a range of instructional approaches and methods appropriate for learners at different stages of literacy development.

TCH-ED 416 Reading II: Assessing and Teaching Diverse Learners Credits: 4
This course focuses on understanding the major components of reading processes (phonemic awareness, word identification and phonics, vocabulary and background knowledge, fluency, comprehension strategies, and motivation) and how they are integrated in fluent reading for individual students at different stages of literacy development. The major project for the course involves assessing and teaching an individual student of the course of the semester. Teacher candidates should also assess and teach small groups of readers.

Prerequisites: TCH-ED 415, admission into teacher education program.

TCH-ED 417 Science Methods in the Elementary School Credits: 3
Prepares teacher candidates in teaching methods focused on ways of involving elementary-aged children (grades 1-6) in science activities and experiences designed to promote curiosity, inquiry-based investigation, and application of scientific concepts as they explore the world.

TCH-ED 418 Social Studies in the Elementary School Credits: 3
The social studies methods course is designed to provide the prospective teacher with the theory, content, powerful teaching practices, and understanding of the role of social studies in a global and multicultural society. The prospective teacher will acquire the knowledge, skills and dispositions needed to design and enact a transformative social studies curriculum that prepares the young to develop civic competence.

TCH-ED 419 Student Teaching in Elementary School Credits: 3-9
Culminating field experience in an elementary school (grades 1-6). Elementary program student teachers engage in an all-day, full semester placement in an elementary classroom. Elementary majors must enroll in 9 credit hours. Hours for other programs using this field experience vary. Teacher candidates should seek advisor approval.

Prerequisites: TCH-ED 479.

TCH-ED 420 Adolescent Development Credits: 3
Various aspects of physiological, emotional, cognitive, social and moral development in the transition from childhood to adolescence will be considered. Attention is focused on a conception of adolescence that is grounded on current research and theory.

TCH-ED 422 Practicum I - Middle and High School Credit: 1
The overarching goal for this introductory field experience is to help teacher candidates shift their perspectives from that of a student to that of a classroom teacher. Emphasis is on observing the relationship among students’ experiences within and outside of school, and planning specific learning experiences for academic and social growth and development. Additionally, teacher candidates attend to the individual student’s responses to learning experiences, as well as the social dynamic among students as they work together in a classroom.

Prerequisites: Admission to the Teacher Education Professional Program.
TCH-ED 423 Practicum II - Middle and High School Credit: 1
This field experience is part of Block 2—the second field experience within a four-block sequence. The overarching goal is for teacher candidates to observe the implementation of the school curriculum in specific disciplines. Topics include the structure of the discipline, interrelatedness among basic concepts, discipline specific practices, and the design of instruction to facilitate deep learning.
Prerequisites: TCH-ED 422.

TCH-ED 424 Practicum III - Middle and High School Credit: 1
This field experience is part of Block 3—the third field experience within a four-block sequence. The overarching goal for this field experience is for teacher candidates to apply conceptual and theoretical knowledge to practice in identifying appropriate instructional strategies, planning instruction, and assessing learning. The emphasis is on understanding the relationships among instructional practices, learner characteristics, and learning outcomes.
Prerequisites: TCH-ED 423.

TCH-ED 425 General Methods - Secondary 2 Credits: 2
The intent of this course is to prepare pre-service teachers to be effective managers of instruction who are skillful in interpersonal communication. Course activities include opportunities for applying techniques based upon a variety of management/discipline models. Field experiences permit on-site observation of various management styles.

TCH-ED 427 Reading in the Secondary School Credits: 3
An examination of the reading process and study of methods and materials used by the secondary school classroom teacher in assessing student reading ability, determining the readability of content area materials and teaching students of all reading levels how to comprehend their textbooks and other printed instructional materials in various content area subjects.

TCH-ED 429 Mathematics in the Elementary School II Credits: 3
Mathematics-specific pedagogy. Methods, techniques, tools and materials for the effective teaching of mathematics. Focuses on the principles, methods, and materials of elementary school mathematics instruction and state curriculum in the context of diverse student backgrounds.
Prerequisites: TCH-ED 413.
Co-requisites: TCH-ED 479.

TCH-ED 430 Gateway to Teaching Credits: 3
This course is designed to introduce pre-service teachers to the education profession and to the teacher education program at UMKC. Through lecture discussion and field experiences the students will examine the social, political, cultural and professional aspects of teaching in 21st century America. In addition, the students will be given an overview of the teacher preparation program and the requirements and expectations for completing the program and qualifying for a certificate to teach in the state of Missouri.
Prerequisites: Admission into the Teacher Education program.

TCH-ED 431 Summer Community Experience Credits: 3
This field-based course provides an in-depth examination into both the evolution of urban communities and dynamics of community building in inner cities, with special emphasis on Kansas City, Missouri. In addition, theories of educational psychology as well as child and adolescent behavior will be infused to assist participants in developing age appropriate mentoring/teaching strategies and activities. Students in the course are engaged with the community through field trips, simulations, course events, and community service.

TCH-ED 432 Special Methods of Teaching English in Middle and High Schools Credits: 3
This course stresses the skills, knowledge, and dispositions pertinent to teaching English Language Arts in middle schools and high schools.

TCH-ED 433 Special Methods of Teaching Mathematics in Middle and High Schools Credits: 3
This course stresses the skills, knowledge, and dispositions pertinent to teaching mathematics in middle schools and high schools.

TCH-ED 434 Seminar in Social Science Curriculum Credits: 3
This seminar course is designed to strengthen teacher candidates’ content knowledge for designing and enacting transformative social science curriculum and pedagogy. Students will actively examine key content, concepts, themes, issues, multiple perspectives, and enduring questions embedded in the social science disciplines such as history, geography, economics, anthropology, sociology, political science and psychology and cultural and social contexts to enhance their knowledge, skills, and confidence for designing and enacting a transformative social science curriculum for diverse middle and high school students’ development of civic competence.

TCH-ED 435 Special Methods of Teaching Science in Middle and High Schools Credits: 3
Provides an opportunity for future science teachers to refine their skills as science educators and at the same time to reflect upon the ways and whys of teaching science.

TCH-ED 436 Special Methods of Teaching Social Science in Middle and High Schools Credits: 3
This course will assist teacher candidates in developing the knowledge, skills, and dispositions needed to design and enact powerful transformative social studies curricular experiences, to foster middle and secondary school students’ abilities to make informed, reasoned decisions and actions for the public good. Students will be introduced to powerful teaching practices, issues, and resources in secondary school social science.

TCH-ED 437 Student Teaching in High School Credits: 3-9
Culminating experience in a secondary school (grades 9-12).
This course is designed to move students from cultural awareness to the application of culturally responsive practice. Specifically, this course will heighten students’ understanding of cultural characteristics and their relationships to teaching and learning. Students will learn culturally responsive strategies and their enactment in instruction for diverse learners.

TCH-ED 440 Introduction To Early Childhood Education Credits: 3
This course is an introduction to the historical, theoretical, ethical, and pedagogical underpinnings of the early childhood education profession. Teacher candidates explore play, inquiry-based learning, documentation, and the role of family and community within diverse curriculum approaches to early childhood education.

TCH-ED 441 Language Development Credits: 3
An introduction to what language is, how first and second languages are acquired, and how to support language development in early childhood classrooms in collaboration with families and communities. Teacher candidates construct knowledge through university classroom experiences, observations of focal children in urban educational settings, and family interviews.

TCH-ED 442 Assessment, Screening, and Data-Informed Early Childhood Teaching Credits: 3
This course provides analysis of assessment methods, application of authentic assessment throughout the teaching cycle and investigation of data-based decision-making through focused inquiry and application in the practicum setting.

TCH-ED 443 Mathematics in Early Childhood II Credits: 3
Approaches to assessing and developing mathematical competencies in young children, birth through Grade 3. Emphasis is placed upon mathematics as a sense-making tool through which actions such as observation, classification, ordering, pattern seeking, and testing of ideas drive experiences and problem solving in the child’s immediate environment.

Prerequisites: TCH-ED 444.

TCH-ED 444 Mathematics in Early Childhood I Credits: 3
Approaches to developing mathematical competencies in young children, through Grade 3. Emphasis is placed upon mathematics as a sense-making tool through which actions such as observation, classification, ordering, pattern seeking, and testing of ideas drive experiences and problem solving in the child’s immediate environment. A variety of materials and tools are studied in terms of the ways they help children explore, develop and test ideas, construct meaning, and communicate ideas.

TCH-ED 445 Science In Early Childhood Credits: 3
This course provides an exploration of the major concepts and culturally responsive teaching strategies in early childhood science (birth –Grade 3). Teacher candidates analyze inquiry processes and tools in science to develop integrated learning experiences that ensure mastery of content and promote curiosity, creativity, inquiry, and self-awareness as learners explore their world.

TCH-ED 446 Early Childhood Creative Activities Credits: 3
Analysis of symbolic representations, creativity, and imagination as a foundation for learning and development of diverse learners in urban early childhood settings. Hands on exploration of creative materials and activities from different representational systems to shape planning of learning experiences and environments that enhance learning and promote children’s creative abilities development.

TCH-ED 447 Social Studies in Early Childhood Credits: 3
This course provides an exploration of the major concepts and teaching strategies in early childhood social studies (birth–Grade 3). Teacher candidates analyze the processes and tools of scientific inquiry related to social studies to design integrated learning experiences that incorporate authentic local and global issues relevant to the learners.

TCH-ED 450 Integrating The Curriculum In Early Childhood Education Credits: 3-4
A culminating curriculum course for early childhood students. The overall goal is to help students become more aware, skilled and informed about developmentally and educationally appropriate practice and curriculum for children during early childhood. Its focus is on constructing an integrated curriculum. A field-based experience is included.

TCH-ED 451 Child Guidance in Early Childhood Classrooms Credits: 3
This course provides an analysis of theory and research on child guidance to frame teacher candidates’ development of guidance procedures that meet ethical guidelines and foster a classroom environment conducive to optimal learning and development of early childhood learners.

TCH-ED 452 Family and Program Relationships in Early Childhood Education Credits: 3
This course provides an analysis of purposes and procedures of family, school and community partnerships that frame teacher candidates’ collaborations, consultation, and teaching of early childhood learners in urban settings.

TCH-ED 453 Learning from Parents Credits: 2
Designed to provide students with direct interactions with parents whose children are participating in early childhood programs, birth to age 8. Emphasis is placed upon students’ understanding of, and sensitivity to, parents’ perspectives regarding the care and education of their young children and recognition of parents as significant informants about their children.

Co-requisites: TCH-ED 452.

TCH-ED 454 Human Relations In The Early Childhood Classroom Credits: 3
Students will analyze the connections between an effective helping relationship and effective teaching in the early childhood classroom. Effective interpersonal communication skills will be identified and practiced. The development of self-concept will be discussed.
TCH-ED 455 Student Teaching In Preschool Credits: 6-10
Observation and student teaching under supervision in a preschool setting.

TCH-ED 456 Student Teaching in Early Childhood Credits: 9
Culminating field experience in Early Childhood. Student teachers engage in an all day, full-semester placement in a K-3 early childhood setting.

**Co-requisites:** TCH-ED 486.

TCH-ED 457 Infant and Toddler Care and Education Credits: 3
This course provides an investigation into infant/toddler care and education theories and practices. Teacher candidates explore relevant curriculum and teaching methods, visit infant and toddler programs, analyze state regulations and national standards for quality care, and evaluate early learning environments.

TCH-ED 458 Practicum For Learning About Infants And Toddlers Credit: 1
The purpose of this course is to learn about child care and education practices in various centers. We will discuss how practices are influenced or constrained by human biology and developmental stages, as they are by ecological and environment pressures such as mothers' work roles. The central themes of the course can be summarized by the phrases purposeful care practices and the optimal practices for infants and toddlers.

TCH-ED 459 Early Childhood Program Management Credits: 3
This course provides an exploration of the program manager's role as a leader who establishes school culture, implements and maintains policies and procedures, and partners with families and communities to facilitate high performing urban early childhood learning environments. Teacher candidates analyze licensing and accreditation regulations that contribute to health, safety and nutrition of learners; interview administrator and community members; and observe at an urban early childhood program.

TCH-ED 460 Middle School Curriculum Credits: 2
This course offers the pre-service teachers an overview of middle school goals, basic principles, and organizations. The course explores interdisciplinary teaming, flexible scheduling, exploratory and advisory programs, and other aspects of the organization within the context of middle school goals and practices.

TCH-ED 461 Student Teaching In Middle School Credits: 6-9
Culminating field experience in a middle school setting. Student teachers engage in an all-day, full semester placement in a middle school classroom. Middle School Education majors must enroll in 9 credit hours. Hours for other programs using this field experience vary. Teacher candidates should seek advisor approval.

**Prerequisites:** TCH-ED 424.

TCH-ED 462 Middle School Philosophy and Organization Credits: 3
This course offers teacher candidates an overview of middle school goals, basic principles, and organizations. Topics include interdisciplinary teaming, flexible scheduling, exploratory and advisory programs, and other aspects of the organization within the context of middle school goals and practices.

TCH-ED 463 Literacy Intervention across the Disciplines Credits: 3
Examination of research, policy, and effective practice of literacy intervention in middle and secondary disciplinary classrooms (i.e. English/language arts, mathematics, science, social studies). Topics will include recognition of reading and writing difficulties, response-to-intervention (RTI), scaffolding instruction for grade level reading comprehension, metacognition, and culturally responsive literacy instruction.

TCH-ED 464 Math Methods for Urban Teachers Credits: 3
Mathematics-specific pedagogy for urban teachers. Methods, techniques, tools and materials for the effective teaching of mathematics. Emphasis on problem solving and reasoning skills in applying mathematics and on teaching in the context of diverse student backgrounds. Portions of this course will occur in urban school classrooms. Students will apply learning to urban classrooms.

**Prerequisites:** Admission into the Institute for Urban Education.

TCH-ED 465 Urban Education VI: Teaching Diverse Students Credit: 1
This interactive course will investigate and examine the principles of teaching diverse students and factors influencing effectiveness of instruction, including empowering African American males, teaching students from diverse populations and working with students with special needs. Some of the class sessions will be taught electronically and work will be submitted electronically.

**Prerequisites:** Admission into the Institute for Urban Education.

TCH-ED 466 Field Experience: Diverse Learners Credit: 1
Students will spend a minimum of 90 hours in an urban school classroom. Students will have the opportunity to apply learning and lessons designed in the semester’s pedagogical courses, particularly Best Practices for Teaching Math, Science, and strategies for working with diverse learners. Students will work with their seminar leader, having the opportunity to be observed and conference about their teaching.

**Prerequisites:** Admission into the Institute for Urban Education.

**Co-requisites:** TCH-ED 465.
TCH-ED 470 Philosophy and History of Science and Technology Credits: 3
This course uses an historical survey to introduce the main philosophical interpretations of the nature and structure of both science and technology. Core concepts such as prediction, explanation, progress, truth, and utility will be examined in light of various philosophical perspectives. Following this, case study methodology will be used to examine interactions among science, technology, and society. Although the major focus will be upon modern Western culture, some attention will be paid to earlier and non-Western cultures. Case studies to be examined include: Perception and Estimation, nuclear power and pesticides; the impact of high technology upon medicine; and the estimated cost/benefit of computer-mediated communications, for example, the Internet.

TCH-ED 475 Working with Families and Communities Credits: 3
This course provides an in-depth examination of research and theory relative to children, family and community which have implications for and application to learning and instruction. Emphasis will be placed on the exploration and critical examination of and insights into the significance of school-family relationships and their relevance to teaching and learning.

TCH-ED 476 Seminar - Elementary Credits: 3
Supports the culminating student teaching experience and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences, for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessment for individual learners. Student teachers will work cooperatively with school personnel, the larger professional community, and families to meet students' needs.

TCH-ED 477 Practicum III – Elementary Credit: 1
This field experience is part of Block 3—the third field experience within a four-block sequence. The overarching goal for this field experience is for teacher candidates to apply conceptual and theoretical knowledge to practice in identifying appropriate instructional strategies, planning instruction, and assessing learning. The emphasis is on understanding the relationship among instructional practices, learner characteristics, and learning outcomes. Prerequisites: TCH-ED 398.

TCH-ED 478 Seminar - Elementary Credits: 3
The overarching goal for this introductory field experience is to help teacher candidates shift their perspectives from that of a student to that of a classroom teacher. Emphasis is on observing the relationship among students’ experiences within and outside of school, and planning specific learning experiences for academic and social growth and development. Additionally, teacher candidates attend to the individual student’s responses to learning experiences, as well as the social dynamic among students as they work together in a classroom.

TCH-ED 479 Practicum II Early Childhood Credit: 1
This field experience is part of Block 2—the second field experience within a four-block sequence. The overarching goal is for teacher candidates to observe the implementation of the school curriculum in specific disciplines. Topics include the structure of the discipline, interrelatedness among basic concepts, discipline specific practices, and the design of instruction to facilitate deep learning.

TCH-ED 480 Practicum I Early Childhood Credit: 1
This course is designed to provide future teachers with a framework for success in the teaching of writing within the English Language Arts curriculum. The goal is to help students turn sound theory provided by the National Writing Project, the National Council of Teachers of English, and other experts in the field of rhetoric and composition into effective practice in the classroom.

TCH-ED 481 Practicum II Early Childhood Credit: 1
This course emphasizes learning theories and methods for early literacy instruction and assessment. It will primarily focus on the components of a culturally responsive literacy curriculum for early childhood students in diverse, urban preprimary and kindergarten contexts. This course includes a field experience with multiple opportunities for observing, teaching, and assessing the literacy development of young children throughout the teaching cycle including engagement with their families and communities.

TCH-ED 482 Seminar in Teaching and Evaluating Writing Credits: 3
This course provides an in-depth examination of research and theory relative to children, family and community which have implications for and application to learning and instruction. Emphasis will be placed on the exploration and critical examination of and insights into the significance of school-family relationships and their relevance to teaching and learning.

TCH-ED 483 Early Childhood Literacy I Credits: 4
This course emphasizes learning theories and methods for early literacy instruction and assessment. The course will primarily focus on the components of a culturally responsive literacy curriculum for early childhood students in diverse, urban preprimary and kindergarten contexts. This course includes a supervised field experience with multiple opportunities for observing, teaching, and assessing the literacy development of young children throughout the teaching cycle including engagement with their families and communities.

TCH-ED 484 Early Childhood Literacy II Credits: 4
This course emphasizes learning theories and methods for early literacy instruction and assessment. The course will primarily focus on the components of a culturally responsive literacy curriculum for early childhood students in diverse, urban kindergarten through 3rd grade contexts. This course includes a supervised field experience with multiple opportunities for observing, teaching, and assessing the literacy development of young children throughout the teaching cycle including engagement with their families and communities.

TCH-ED 485 Language Arts in the Early Childhood Classroom Credits: 3
This course provides instruction in planning, implementing, and assessing early childhood (birth through third-grade) language arts activities. Critical analysis in classroom settings is emphasized. Other issues discussed include: literature-based instruction, multicultural perspectives, special needs students and professional behaviors.

TCH-ED 486 Seminar - Early Childhood Credits: 3
Supports the culminating student teaching experience and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences, for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessment for individual learners. Student teachers will work cooperatively with school personnel, the larger professional community, and families to meet students' needs.

Co-requisites: TCH-ED 456.
TCH-ED 487 Practicum III - Early Childhood Credit: 1
This field experience is part of Block 3, the third field experience within a four-block sequence. The overarching goal for this field experience is for teacher candidates to apply conceptual and theoretical knowledge to practice in identifying appropriate instructional strategies, planning instruction, and assessing learning. The emphasis is on understanding the relationships among instructional practices, learner characteristics, and learning outcomes.

TCH-ED 491 Seminar - Art Education Credits: 3
Supports the culminating student teaching experience and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessment for individual learners. Student teachers will work cooperatively with school personnel, the larger professional community, and families to meet students’ needs.

TCH-ED 492 Integrated Instruction: Language Arts and Social Studies Credits: 6
This course will focus on teaching Language Arts and Social Studies in the Urban Elementary School. Methods, techniques, tools and materials for the effective teaching will be observed and practiced. Students will work closely with in-service teachers and their university instructor. There will be emphasis on balanced literacy, readers’ and writers’ workshops, literacy development, assessment techniques and the integration of social studies and language arts. Curriculum mapping and unit planning will be introduced and practiced in this course. This course will focus on school and classroom organization and management, detailed lesson planning, use of instructional materials and media in the teaching of language arts and social studies.

**Prerequisites:** Admission into the Institute of Urban Education.

TCH-ED 493 Seminar - Mathematics Credits: 3
Supports the culminating student teaching experience and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessment for individual learners. Student teachers will work cooperatively with school personnel, the larger professional community, and families to meet students’ needs.

**Co-Requisites:** TCH-ED 437 or TCH-ED 461.

TCH-ED 494 Seminar - English/Language Arts Credits: 3
Supports the culminating student teaching experience and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessment for individual learners. Student teachers will work cooperatively with school personnel, the larger professional community, and families to meet students’ needs.

**Co-requisites:** TCH-ED 437 or TCH-ED 461.

TCH-ED 495 Seminar - Science Credits: 3
Supports the culminating student teaching experience and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessment for individual learners. Student teachers will work cooperatively with school personnel, the larger professional community, and families to meet students’ needs.

**Co-requisites:** TCH-ED 437 or TCH-ED 461.

TCH-ED 496 Seminar - Social Science Credits: 3
Supports the culminating student teaching experience and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessment for individual learners. Student teachers will work cooperatively with school personnel, the larger professional community, and families to meet students’ needs.

**Co-requisites:** TCH-ED 437 or TCH-ED 461.

TCH-ED 497 Teaching Internship Credits: 3-8
Teacher candidates will work 3 to 5 days at the school site in which the candidate will complete the year-long teaching internship.

**Prerequisites:** TCH-ED 398.

TCH-ED 498 Urban Education Seminar VII Credit: 1
This seminar meets weekly for 2 hours and is led by a clinical professor who serves as a mentor for the students throughout their program. Students will work closely with mentor teachers in the application and integration of social justice and the elementary school curriculum. A critical analysis of current practices, teaching methods, materials and how social justice manifests in curriculum and instruction. Emphasis is on understanding cultural diversity and cultural influences on learning. Concepts of a classroom community, parental relations and democratic classroom processes will be addressed. Students will have opportunities to apply their learning to urban classrooms.

**Prerequisites:** Admission into the Institute for Urban Education.

TCH-ED 499 Capstone Credits: 2
This seminar is designed to complement the student teaching experience through the discussion and analysis of school-based issues. It is intended to help further develop a reflective, critical and analytical approach to pedagogical decision making through supportive collaboration.
Theatre (THEATRE)

Courses

THEATRE 101 Introduction To Acting Credits: 3
An introductory course to acquaint the freshman theatre major and non-major student with the process of acting through relaxation and improvisational exercise.

THEATRE 113 Introduction To Technical Production Credits: 3
An introduction to the technical production process with emphasis on production organization, planning and scenic construction techniques. Required laboratory work.

THEATRE 121 Oral Interpretation Of Literature Credits: 3

THEATRE 130 Foundations Of Fine Arts Theatre Credits: 3
An introduction to theatre arts and a general orientation to the creative and technical aspects of live performance. Includes historical overview, analysis of the components of a play, and observation of and critical reaction to theatrical productions. Frequent guest speakers. THEATRE 130 - MOTR THEA 100A: Theatre Appreciation

THEATRE 210 Introduction To Design For The Theater Credits: 3
An introduction to aesthetics and design for the theater in the areas of scenery, costume, lighting and sound. The emphasis is upon the theory, vocabulary, form, style, historical influences and process in each area. Attendance at theater productions is required. Course is taught by design faculty from each area.

THEATRE 295 Speech For The Theatre I Credits: 3
Training in voice and articulation and the techniques of adaptation to the needs of the artist-performer in the theatre: exercises to free the voice, develop effective breathing, tone production, articulation, flexibility of vocal production, and projection.

THEATRE 295A Speech For The Theater I Credits: 3
THEATRE 295B Speech For The Theater I Credits: 3

THEATRE 298 Movement For Actors Credits: 3
Basic movement training including relaxation and alignment techniques, exercises to increase physical facility and skills to enhance rhythmic coordination and physical characterization.

THEATRE 298A Movement For Actors Credits: 3
THEATRE 298B Movement For Actors Credits: 3

THEATRE 300 Acting I Credits: 3
Basic principles of dramatic performance: training in voice, movement and language as an organic developmental whole.

THEATRE 315 Acting II Credits: 3
Textual analysis, characterization and building a role. Prerequisites: THEATRE 300.

THEATRE 317 Scene Design Credits: 3
Introduces the mechanics of layout: perspective, basic drafting techniques, front elevation and floorplan execution. Second half of the semester emphasizes scenic design as an art form. Recommended Preparation: THEATRE 311. Prerequisites: THEATRE 113.

THEATRE 325 Acting III Credits: 3
Study and practice of period and contemporary styles of acting. Prerequisites: THEATRE 315.

THEATRE 329 Master Class In Acting Credits: 2
(A,B,C,D) Class in advanced studies in acting. May be repeated for credit up to eight hours and guest artist change. Prerequisites: THEATRE 325.
THEATRE 329A Master Class In Acting Credits: 2
THEATRE 329B Master Class In Acting Credits: 2
THEATRE 329C Master Class In Acting Credits: 2
THEATRE 329D Master Class In Acting Credits: 2
THEATRE 333 History of Costuming I Credits: 3
The study of the history of European costume, with emphasis on the social and economic ramifications of costuming through the ages.
THEATRE 340 Stage Makeup Credit: 1
Lecture and laboratory work in the fundamentals of makeup for the stage.
THEATRE 350 Theatre History I Credits: 3
Development of theatre art, including the physical stage, technical production elements, dramatic literature, and audience behavior from primitive origins to the 18th century.
THEATRE 351WI Theatre History II Credits: 3
Development of Theatre art, including the physical stage, technical production elements, dramatic literature, and audience behavior from the 18th century to the present.
Prerequisites: RooWriter.
THEATRE 352 History of Costuming II Credits: 3
The study of the history of Non-European costume, with emphasis on the social and economic ramifications of costuming through the ages.
THEATRE 371 Stage Lighting Credits: 3
Stage Lighting is the study of light as a design element. Students will learn the foundation of lighting design theory, technical methods, and general theatrical procedure through lectures, laboratory and crew work. Theatrical genres will vary by semester.
Prerequisite: THEATRE 210.
THEATRE 372 Stage Lighting Technology Credits: 2
This course is a comprehensive study of contemporary technical equipment and its usage to actualize lighting design. Areas of emphasis include photometric, color and color theory, lighting control systems, lighting control operations, cueing techniques, data control of intelligent lighting equipment, lighting fixtures, dimming system, hand drafted light plot standards, CAD light plot drafting, lighting specific software programs, video and image projections, and optical special effects. Theatrical genres will vary by semester.
Prerequisites: THEATRE 210.
THEATRE 374 Professional Projection Design Credits: 3
This course in projection design for the performing arts will give students an overview of the discipline and introduce students to ideas and technologies used in this field. Through the three weekend sessions, students will learn the practical applications of projection design and the techniques of projection controls. Recommended preparation: basic, fundamental knowledge of computers and basic, fundamental knowledge of theatre designs.
Prerequisites: THEATRE 210.
THEATRE 378 Stage Management I Credits: 3
A functional analysis of the duties and responsibilities of the stage manager, with particular reference to the organization and conducting of rehearsals and performances, professional practices and union requirements. Requires student to be an assistant to a stage manager on a University or an KC Rep production. The first of a two-semester requirement in stage management for theater majors.
THEATRE 400 Special Problems In Theatre Credits: 1-6
(A-M) Research and/or production projects for advanced upperclass students. No more than three hours with any one instructor. (A) Acting; (B) Children's Theatre; (C) Costumes; (D) Scenic Design; (E) Directing; (F) History; (G) Lighting; (H) Playwriting; (I) Sound; (J) Stage Management; (K) Technical Production (L) Theatre Management; (M) Theory and Criticism.
THEATRE 400A Special Problems In Theatre: Acting Credits: 1-6
THEATRE 400B Special Problems In Theatre: Design Credits: 1-6
THEATRE 400C Special Problems In Theatre: Costumes Credits: 1-6
THEATRE 400D Special Problems In Theatre: Scenic Design Credits: 1-6
THEATRE 400E Special Problems In Theatre: Directing Credits: 1-6
THEATRE 400F Special Problems In Theatre: History Credits: 1-6
THEATRE 400G Special Problems In Theatre: Lighting Credits: 1-6
THEATRE 400H Special Problems In Theatre: Playwriting Credits: 1-6
THEATRE 400I Special Problems In Theatre: Sound Credits: 1-6
THEATRE 400J Special Problems In Theatre: Stage Management Credits: 1-6
THEATRE 400L Special Problems In Theatre: Theatre Management Credits: 1-6
THEATRE 400M Special Problems In Theatre: Theory And Criticism Credits: 1-6
THEATRE 400N Special Problems In Theatre: Dramaturgy Credits: 1-6
THEATRE 400R Special Problems In Theatre Credits: 1-6
THEATRE 400S Special Topics In Theatre Credits: 1-6
THEATRE 403 Theatre Company & Production Credit: 1
This course serves (1) as a weekly company meeting for Theatre majors, (2) an organizing point for production assignments and duties for the semester, and (3) a study of a special topic which will change each semester. Course is repeatable. Required of Majors for every semester they are enrolled.

Prerequisites: Theatre Majors and Minors.

THEATRE 415 Beginning Directing Credits: 3
Theory and process of play production, including interpretation, composition, picturization, movement, rhythm, and character interpretation.

THEATRE 431 Rendering Techniques For The Theatre Designer I Credits: 3
Introduces the mechanics of handling black and white media to develop three-dimensional technique with an emphasis on observational training and object drawing.

THEATRE 432 Costume Design Credits: 3
The practice of the theatrical costume design, leading to the preparation of designs for production, and the execution of designs in actual costuming for the stage.

THEATRE 432A Costume Design Credits: 3
THEATRE 432B Costume Design Credits: 3
THEATRE 432C Costume Design Credits: 3
THEATRE 432D Costume Design Credits: 3

THEATRE 437 Playwriting I Credits: 3
Theory and practice of writing for the theatre with emphasis on the basic techniques.

THEATRE 438 Playwriting II Credits: 3
Theory and practice of writing for the theatre with emphasis on advanced techniques.

THEATRE 476 Theatre Sound And Electronics Credits: 3
Study of electronic principles used in audio and control devices. Concentrates on applying knowledge to using the equipment employed in the theatre such as sound-effect systems, inter-communication equipment, and includes a special section on the creation of sound and music for theatre productions.

THEATRE 478 Stage Management II Credits: 2
Practicum course in stage management. Requires stage management of a University production and/or assistant stage management of an KC Rep production and/or assistant stage management of a main stage University production.

Prerequisites: THEATRE 378.
THEATRE 497 Repertory Theatre Credits: 3-6
Apprentice-level responsibilities for Theatre 497 are as follows: apprentices will be used in as many production areas as possible: (1) as actors in small roles and/or extras or supers; (2) as understudies if possible; (3) as needed in the following departments: (a) properties; (b) carpentry and the shop; (c) lighting; (d) costumes; (e) house management; (f) stage management; (g) running crews.
Prerequisites: Selection for apprenticeship by departmental chairman.

THEATRE H101 Introduction To Acting Credits: 3
An introductory course to acquaint the freshman theater major and non-major student with the process of acting through relaxation and improvisational exercise.

THEATRE H113 Introduction To Technical Production Credits: 3
An introduction to the technical production process with emphasis on production organization, planning and scenic construction techniques. Required laboratory work.

THEATRE H210 Introduction To Design For The Theater Credits: 3
An introduction to aesthetics and design for the theater in the areas of scenery, costume, lighting and sound. The emphasis is upon the theory, vocabulary, form, style, historical influences and process in each area. Attendance at theater productions is required. Course is taught by design faculty from each area.

THEATRE H315 Acting II Credits: 3
Textual analysis, characterization and building a role.
Prerequisites: THEATRE 300.

THEATRE H350 Theater History I-Honors Credits: 3
THEATRE H351WI Theater History II Credits: 3
Development of Theater art, including the physical stage, technical production elements, dramatic literature, and audience behavior from the 18th century to the present.
Prerequisites: RooWriter.

Trombone (TROMB)

Courses
TROMB 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

TROMB 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

TROMB 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

TROMB 101 Freshman Trombone I Credits: 2-4
TROMB 101J Freshman Trombone I (Jazz) Credits: 2-4
TROMB 102 Freshman Trombone II Credits: 2-4
TROMB 102J Freshman Trombone II (Jazz) Credits: 2-4
TROMB 201 Sophomore Trombone I Credits: 2-4
TROMB 201J Sophomore Trombone I (Jazz) Credits: 2-4
TROMB 202 Sophomore Trombone II Credits: 2-4
TROMB 202J Sophomore Trombone II (Jazz) Credits: 2-4
TROMB 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Co-requisites: Enrollment in lessons.

Cross Listings: TROMB 5300.
TROMB 301 Junior Trombone I Credits: 2-4
TROMB 301J Junior Trombone I (Jazz) Credits: 4
TROMB 302 Junior Trombone II Credits: 2-4
TROMB 302J Junior Trombone II (Jazz) Credits: 4
TROMB 401 Senior Trombone I Credits: 2-4
TROMB 401J Senior Trombone I (Jazz) Credits: 4
TROMB 402 Senior Trombone II Credits: 2-4
TROMB 402J Senior Trombone II (Jazz) Credits: 4

**Trumpet (TRUMPET)**

**Courses**

TRUMPET 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

TRUMPET 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

TRUMPET 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

TRUMPET 101 Freshman Trumpet I Credits: 2-4
TRUMPET 101J Freshman Trumpet I (Jazz) Credits: 2-4
TRUMPET 102 Freshman Trumpet II Credits: 2-4
TRUMPET 102J Freshman Trumpet II (Jazz) Credits: 2-4
TRUMPET 201 Sophomore Trumpet I Credits: 2-4
TRUMPET 201J Sophomore Trumpet I (Jazz) Credits: 2-4
TRUMPET 202 Sophomore Trumpet II Credits: 2-4
TRUMPET 202J Sophomore Trumpet II (Jazz) Credits: 2-4
TRUMPET 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance. **Co-requisites**: Enrollment in lessons.

**Cross Listings**: TRUMPET 5300.

TRUMPET 301 Junior Trumpet I Credits: 2-4
TRUMPET 301J Junior Trumpet I (Jazz) Credits: 4
TRUMPET 302 Junior Trumpet II Credits: 2-4
TRUMPET 302J Junior Trumpet II (Jazz) Credits: 4
TRUMPET 368 Orchestral Literature for Trumpet Credit: 1
Intended to introduce students to the standard repertoire for orchestral trumpet; class meets once weekly for an hour. Students will be expected to prepare and play approximately a dozen works per semester, rotating parts in a full trumpet section.

TRUMPET 401 Senior Trumpet I Credits: 2-4
TRUMPET 401J Senior Trumpet I (Jazz) Credits: 4
TRUMPET 402 Senior Trumpet II Credits: 2-4
TRUMPET 402J Senior Trumpet II (Jazz) Credits: 4

**Tuba (TUBA)**

**Courses**

TUBA 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.
TUBA 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

TUBA 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

TUBA 101 Freshman Tuba I Credits: 2-4
TUBA 102 Freshman Tuba II Credits: 2-4
TUBA 201 Sophomore Tuba I Credits: 2-4
TUBA 202 Sophomore Tuba II Credits: 2-4
TUBA 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Co-requisites: Enrollment in lessons.

Cross Listings: TUBA 5300.

TUBA 301 Junior Tuba I Credits: 2-4
TUBA 302 Junior Tuba II Credits: 2-4
TUBA 401 Senior Tuba I Credits: 2-4
TUBA 402 Senior Tuba II Credits: 2-4

University College (UNIV)

Courses

UNIV 100 Academic Development Credit: 1
This course is designed to help students further develop needed critical thinking and academic skills. Students will have the opportunity to analyze individual learning behavior, and to learn, adopt, and apply critical thinking methods and academic skills that promote success in college.
Prerequisites: University College Student.

UNIV 102 Career and Major Planning Credits: 2
The goal of this course is to provide assistance career/major exploration in order for students who have not declared their majors to make purposeful decisions about academic plans and career goals while fostering academic success. UNIV 102 is required for new transfer or transitioning UMKC students and for students having completed ANCH 101 in the previous term.
Prerequisites: University College Student.

UNIV 202 Next Steps in Career & Major Exploration Credit: 1
Designed to actively engage students in their educational and career-planning process by exploring factors that influence personal decision-making. While the course is practical and applied, it also addresses the broader view of work in our lives. The course will include discussion of factors that impact major and career decision-making in order to empower students to make an appropriate decision.
Prerequisites: UNIV 102.

UNIV 300 Peer Leadership Credit: 1
Designed for the study and practical application of leadership skills that will benefit Peer Leaders working with courses/laboratory instructors and students. Open to Peer Leaders only. May be repeated for a total of 3 hours. Course to be utilized by multiple academic units to support training efforts.

Urban Planning and Design (UPD)

Courses

UPD 203 GIS For Urban Planning Credits: 3
This introductory level GIS course is designed to expose planning students to Geographical Information Systems (GIS). Students will learn basic concepts and theories of GIS and applications of GIS software with hands-on experience. Students will also learn how to search for demographic, socio-economic, land use, transportation, and geospatial data, and how to use such data for their academic research and professional planning work with GIS. Students will apply GIS to the multiple scales of planning work.

UPD 260 History Of Planning And Urban Design Credits: 3
An overview of planning history with an emphasis on the 19th and 20th centuries. The historic framework will include urban history, the rise and development of urban planning, urban design, and social theory and how these areas have affected the shape of our cities.
UPD 280 Land Use Planning Credits: 3
This course explores the basic principles of plan making, land use development and regulation. Students are introduced to contemporary planning and policy issues. Including land use conflicts and alternative models for sustainable planning, design and management. Students will learn how to develop a land use plan using Geographic Information Systems (GIS) and other design tools. An introductory GIS course (UPD 203) is highly recommended.

UPD 300 Quantitative Planning Methods And Techniques Credits: 3
Statistical analysis and other analytic techniques of data gathering. Data and problems framed from complex, real world situations. Competence in firsthand research; survey design; case study method; data gathering methods such as observation, open-ended interviewing and questionnaires.

UPD 310 Planning And Design Studio I Credits: 4
This Urban Planning + Design studio course will introduce methods for analyzing urban spaces at the site and neighborhood level. Students will actively solve problems related to the physical planning of cities and communities while continuing to develop abilities in methods of written, oral and graphic presentation.
Prerequisites: ENV-DSN 201 and ENV-DSN 202 with a grade of C- or better.

UPD 312 Planning And Design Studio II Credits: 4
Studio instruction in urban planning and design focusing on the synthesis of land use analyses, regulatory reviews, urban design issues, and public participation facilitation. Continued instruction in techniques for visually presenting planning and design ideas.
Prerequisites: UPD 300, UPD 310 with a grade of C- or better.

UPD 320 Planning Theory And Practice Credits: 3
This course examines contemporary urban planning and design practice. Theories about planning practice and related case studies will be the basis of this course. Topics covered will include the definition of urban planning, the idea of the "public realm," planning/design expertise and the rational model, the role of diversity, public participation, communicative planning, advocacy and equity planning, ethics comprehensiveness and the limits of planning. The course will include assignments that will build student's ability to write quick and analytical assessments, often required in planning practice. Students will be required to attend public planning forums in and around the region.

UPD 332 Environmental Sustainability Credits: 3
Explores the meaning of sustainability at the personal, governmental and global levels. We will discuss the scientific facts of climate change and ecology, the role of individual and collective choice, and positive approaches for society being developed around the world. No prerequisites. This course is open to all and highly recommended for Environmental Studies majors.

UPD 332CZ Environmental Sustainability Credits: 3
This course will introduce the concept of sustainability and review how sustainability might work at the individual, neighborhood, state, nation and global scales. Students will participate in some form of community engagement on sustainability as well as reflect upon how their own practices impact the environment. Counts toward AS Interdisciplinary "Cluster course." Key course in sustainability minor.

UPD 340 Neighborhood And Community Development Credits: 3
Course provides a comprehensive introduction to the field of community development and neighborhood planning. The development of theoretical models that explain neighborhood change and history in the U.S. will serve as the basis. Issues explored include: community organizing, social movements, federal and state policies, and the role of planning organizations and community development corporations in neighborhood revitalization.

UPD 400 Advanced GIS For Urban Planning Credits: 3
This advanced level GIS course is designed to expose students to high level GIS techniques and geospatial analyses in urban planning. Students will learn advanced theories and geographic information tools with hands-on experiences. Students will have an opportunity to apply their knowledge and skills in GIS to a real world planning project in class.

UPD 403 GIS for Urban Planning Credits: 3
The introductory level GIS course is designed to expose graduate students to Geographical Information Systems (GIS). Students will learn basic concepts and theories of GIS and application of GIS software with hands-on experience. Students will also learn how to search for demographic, socio-economic, land use, transportation, and geospatial data.

UPD 410 Planning And Design Studio III Credits: 4
Instruction in problem analysis and plan development for defined urban or suburban location with multiple constituencies.
Prerequisites: UPD 312 and not more than one grade of D in a UPD studio course.

UPD 411 Professional Practice I Credit: 1
A seminar preparing students for professional practice in urban planning + design including the preparation of a professional resume and portfolio.
Co-requisites: UPD 312.

UPD 412WI Planning And Design Studio IV Credits: 5
Capstone course that incorporates a topical plan or a comprehensive plan for a client comprising a development subdivision, a community or a redevelopment area.
Prerequisites: UPD 410 with a grade of C- or better, RooWriter.
UPD 413 Professional Practice II Credit: 1
A continuation of professional practice seminar addressing issues of professional writing in Urban Planning and Design practice.
Prerequisites: UPD 411.

Co-requisites: UPD 410.

UPD 420 Transportation Planning Credits: 3
The course provides fundamental theories, methods, and contemporary issues in transportation planning. The topics covered in this course include the transportation planning process, transportation systems, travel demand analysis, and policy issues such as the linkage between land use and transportation, urban transportation finance, social and environmental justice, transportation and environmental impacts, and traffic congestion.

UPD 430 Planning For Historic Preservation Credits: 3
The course provides a survey of major issues in the field of historic preservation and heritage studies from a planning perspective. Will focus primarily on the built environment of the United States, as well as world heritage sites and international perspectives. The course will include the urban planning techniques used for preserving historic buildings, neighborhood and districts, as well as some of the landmark legal decisions and legislation that have shaped heritage preservation practice in the U.S. Recommended Preparation: UPD 260.

UPD 432 Urban Environment Planning And Design Credits: 3
The built environment does not exist in a vacuum. Cities operate within broad ecological processes. Effective environmental planning can protect important natural resources while providing for a higher quality of life for urban residents. As a survey course in a subfield of urban planning, this course introduces students to environment planning approaches and techniques.

UPD 450 Planning Law And Practice Credits: 3
Introduction to legal procedures basic to urban planning; including legal, constitutional, legislative, and administrative concepts, controls, and land-use regulations.

UPD 472 Urban Redevelopment Credits: 3
Contemporary issues of urban redevelopment, with an emphasis on American cities, will be examined. Redevelopment processes recently completed or underway in the greater Kansas City region will be the subject of a case study and a theoretical review by each student.

UPD 475 American Housing Credits: 3
Students will explore housing in cultural, design, and historical terms and examine contemporary American housing policy.

UPD 490 Urban Planning Internship Credits: 3
Urban planning work experience off-campus with an approved professional, Government, or non-profit agency sponsor. A contract specifying the expected product of the internship is required between the student, agency, and faculty coordinator.
Prerequisites: UPD 203, UPD 300.

UPD 496 Directed Studies In Urban Planning Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor.

UPD 499 Special Topics In Urban Planning Credits: 1-3
Advanced independent research and analysis in urban planning. Topics and methods used in research, to be established by student and academic supervisor prior to enrollment.

UPD 499B Special Topics In Urban Planning Credits: 1-3
Advanced independent research and analysis in urban planning. Topics and methods used in research, to be established by student and academic supervisor prior to enrollment.

UPD 499C Special Topics In Urban Planning Credits: 1-3
Advanced independent research and analysis in urban planning. Topics and methods used in research, to be established by student and academic supervisor prior to enrollment.

Urban Studies (URBAN ST)

Courses

URBAN ST 100 Neighborhood And Community Development Credits: 3
Course provides a comprehensive introduction to the field of community development and neighborhood planning. The development of theoretical models that explain neighborhood change and history in the United States will serve as the basis. Issues explored include: Community organizing, social movements, federal and state policies, and the role of planning organizations and community development corporations in neighborhood revitalization.
URBAN ST 340 Neighborhood and Community Development Credits: 3
Course provides a comprehensive introduction to the field of community development and neighborhood planning. The development of theoretical models that explain neighborhood change and history in the U.S. will serve as the basis. Issues explored include: community organizing, social movements, federal and state policies, and the role of planning organizations and community development corporations in neighborhood revitalization.

URBAN ST 495 Urban Studies Internship Credits: 1-6
Students obtain directed practical experience working with non-profits, governments, or private enterprises. Duties will vary based on contractual agreement between the student, host organization, and the professor.
Prerequisites: junior standing or higher.

URBAN ST 499WI Urban Studies Seminar Credits: 3
This is the capstone course in the Urban Studies Program and is required for majors in the junior/senior year. Students critique urban research and prepare a paper and an oral presentation on an approved topic.
Prerequisites: RooWriter.

**Viola (VIOLA)**

Courses
VIOLA 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

VIOLA 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

VIOLA 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

VIOLA 101 Freshman Viola I Credits: 2-4

VIOLA 102 Freshman Viola II Credits: 2-4

VIOLA 201 Sophomore Viola I Credits: 2-4

VIOLA 202 Sophomore Viola II Credits: 2-4

VIOLA 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Co-requisites: Enrollment in lessons.

Cross Listings: VIOLA 5300.

VIOLA 301 Junior Viola I Credits: 2-4

VIOLA 302 Junior Viola II Credits: 2-4

VIOLA 401 Senior Viola I Credits: 2-4

VIOLA 402 Senior Viola II Credits: 2-4

**Violín (VIOLIN)**

Courses
VIOLIN 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

VIOLIN 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

VIOLIN 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

VIOLIN 100D Applied Study for the Non-Music Major Credit: 1
Nine half-hour lessons. No jury required.
VIOLIN 101 Freshman Violin I Credits: 2-4
VIOLIN 102 Freshman Violin II Credits: 2-4
VIOLIN 201 Sophomore Violin I Credits: 2-4
VIOLIN 202 Sophomore Violin II Credits: 2-4
VIOLIN 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Co-requisites: Enrollment in lessons.

Cross Listings: VIOLIN 5300.

VIOLIN 301 Junior Violin I Credits: 2-4
VIOLIN 302 Junior Violin II Credits: 2-4
VIOLIN 401 Senior Violin I Credits: 2-4
VIOLIN 402 Senior Violin II Credits: 2-4

Voice (VOICE)

Courses
VOICE 100A Preparatory Applied Study Credits: 2
One-hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit toward the major.

VOICE 100B Applied Study of a Second Instrument Credits: 2
Applied study of a second instrument. One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

VOICE 100C Applied Study for the Non-Music Major Credits: 2
Applied study for the non-music major. One half-hour lesson weekly. No jury required.

VOICE 101 Freshman Voice I Credits: 2-4
One hour weekly participation in Vocal Performance Seminar is required.

VOICE 102 Freshman Voice II Credits: 2-4
One hour weekly participation in Vocal Performance Seminar is required.

VOICE 201 Sophomore Voice I Credits: 2-4
One hour weekly participation in Vocal Performance Seminar is required.

VOICE 202 Sophomore Voice II Credits: 2-4
One hour weekly participation in Vocal Performance Seminar is required.

VOICE 300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Co-requisites: Enrollment in lessons.

VOICE 301 Junior Voice I Credits: 2-4
One hour weekly participation in Vocal Performance Seminar is required.

VOICE 302 Junior Voice II Credits: 2-4
One hour weekly participation in Vocal Performance Seminar is required.

VOICE 401 Senior Voice I Credits: 2-4
One hour weekly participation in Vocal Performance Seminar is required.

VOICE 402 Senior Voice II Credits: 2-4
One hour weekly participation in Vocal Performance Seminar is required.

VOICE 411 Vocal Coaching: Voice Recital Preparation Credit: 1
The purpose of vocal coaching is to aid singers in refining their performance skills in terms of musical style, nuance, language, diction, and character. It is intended to amplify the singer’s understanding of the many aspects of performance including musical shaping, dynamic contrasts, poetic/textual architecture, traditional approaches to literature of various periods and styles, and appropriate performance practices related to voice recitals and/or the operatic stage. In addition, singers will develop additional skills in working with a collaborative pianist and explore appropriate expectations when working with conductors/stage directors.

Women's, Gender and Sexuality Studies (WGS)
Courses

WGS 201 Introduction To Women's, Gender, and Sexuality Studies Credits: 3
This class provides an introduction to the interdisciplinary field of women's, gender, and sexuality studies. The focus of this course will be the many ways gender is integral to our understanding of our world and the communities in which we live.

WGS 301 Introduction to Feminist Theory Credits: 3
This course covers a wide variety of feminist theories and theoretical perspectives, primarily since the 1960s, and is devoted to understanding and evaluating this body of work and the insights and possibilities for change that it suggests.
Prerequisites: WGS 201.

WGS 314CC Weimar Culture: Gender and Modernity in Central Europe Credits: 3
A cluster course concerned with the culture of Weimar Germany (1919-1933), a period of crucial importance not only for German history but also for European and world history. Examines how film, advertising, theater set design, painting, photography and other media sought to re-imagine gender identities, foster new cultural forms, and transform economic relations during the Roaring Twenties in Germany.

WGS 405 Special Topics In Women's, Gender, and Sexuality Studies Credits: 1-3
Each time this course is offered a different area of Women's and Gender Studies will be covered. This course may be repeated for credit when the topic changes.

WGS 408 Gender, Health, and Development in Senegal Credits: 3
This course examines women's economic empowerment, health education initiatives, philanthropy, and social entrepreneurship in West Africa and Senegal in particular. In the main city of Dakar we will visit indigenous and global nonprofits to study their policies and processes. The culture, both urban and rural, will be experienced in order to provide a unique perspective on the Senegalese and their culture.

WGS 460CC CC: Queer in the City: An introduction to Lesbian and Gay Studies Credits: 3
This course introduces queer theory within the context of gender studies and urban studies. We will read, discuss, and react to classic text in queer theory, lesbian and gay studies, and sexuality and space studies. There will be an emphasis on finding "otherness" within everyday spaces, places, texts, and discourses.

WGS 484 Women's, Gender, and Sexuality Studies Internship Credits: 1-4
The Women's, Gender, and Sexuality Studies Internship Program is an opportunity for undergraduate students to gain on-site experience. Students will receive 1-4 hours of academic credit while learning and working in off- or on-campus placements. Students will engage in the ongoing feminist effort to integrate research with social activism as they apply academic knowledge to their work experience and consider how practical experience informs or alters theory. Internship experiences may take place on or off-campus, such as at the UMKC Women's Center or a local battered women's shelter. The Women's Center Director serves as coordinator for all internship experiences.
Prerequisites: WGS 201.

WGS 499 Women's, Gender, and Sexuality Studies: Senior Seminar Credits: 3
This capstone course focuses on research leading to a term paper on a Women's, Gender, and Sexuality Studies Topic.

Graduate Course Offerings

Accounting (ACCTNG)

Courses

ACCTNG 5501 Finance Performance & Assessment Credit: 1.5
This course covers the fundamentals of financial reporting systems. The material is presented from a user perspective. This approach is intended to prepare students to use accounting information and will not necessarily result in students understanding the process used to record accounting transactions. Material is presented in a manner that emphasizes how accounting information is used for decision making.

ACCTNG 5503 Financial Accounting for Decision Making Credits: 3
An introduction to the role of financial accounting in organizational decision making. The course provides students with an understanding of the process for reading, analyzing, and interpreting financial accounting data to make informed business decisions. Students will learn the strengths and limitations of accounting information and how it can be used to create value for the organization.
Prerequisites: Students must be enrolled in a Bloch School graduate program.

ACCTNG 5510 Legal & Ethical Environment for Accountancy Credits: 3
The course exposes accounting students to major legal subjects and ethical issues that they will encounter on the CPA exam an in accountancy practice. Working individually and in groups, students will be asked to solve problems regarding business formation and securities regulation, intellectual property rights, contract formation and secured interests of creditors.
Prerequisites: MS Accountancy students who did not have any business law course as part of their undergraduate degree.

ACCTNG 5511 Becker CPA Review Credit: 1
Structured review of materials for financial, auditing, business environment, and regulatory sections of the CPA examination.
ACCTNG 5517 Survey Of Accounting Credits: 3
An overview of financial and managerial accounting. The course introduces the various reports that are used by stockholders, creditors, and managers to assess company performance and evaluate financial health. In addition, techniques are presented that assist firm managers in planning, control, and decision-making activities.

ACCTNG 5520 Financial Accounting and Reporting: The Language of Business Credits: 2
Focusing on the three main financial statements (the balance sheet, the income statement, and the statement of cash-flows), students develop an understanding of how transactions and events are captured in the accounting system and ultimately impact the financial statements. Students will learn the mechanics of financial accounting needed to analyze financial information while also considering how incentives influence the financial reporting process.

ACCTNG 5521 Managerial Accounting: Critical Data for Important Decisions Credits: 2
Covers the fundamental accounting tools and analytical skills managers use to make decisions in an innovative and globally competitive business environment. The vocabulary and mechanics of cost accounting, basic issues involved in the design of managerial accounting systems to provide decision useful information, and the role of managerial accounting resource allocation and performance evaluation.

ACCTNG 5550 Accounting Information Systems Credits: 3
This course examines a number if systems employed to process accounting information, the internal control activities typically used in each system, and associated documentation tools.
Prerequisites: ACCTNG 310, MIS 202.

ACCTNG 5551 Governmental/Not-for-Profit Accounting Credits: 3
An overview of accounting for state and local governments and not-for-profit entities. Pronouncements of the accounting profession are emphasized where applicable.
Prerequisites: ACCTNG 311 or equivalent.

ACCTNG 5556 Cost Management Credits: 3
A study of the principles and techniques of cost accounting with emphasis on the structure of cost accounting systems and the processing, summarizing, and reporting of cost information. Topics include various issues relevant for manufacturing and service organizations, and introduction of situations that requires the application of cost information to managerial settings.
Prerequisites: ACCTNG 5517 (or equivalent).

ACCTNG 5557 Introduction To Income Taxation Credits: 3
An investigation of the structure of federal, state, and local taxation, along with an examination of the impact of taxes on the management decision process. NOT available for students who have completed ACCTNG 408.
Prerequisites: ACCTNG 5517 (or equivalent).

ACCTNG 5558 Financial Accounting Theory Credits: 3
A study of the theory and practice of financial accounting with emphasis upon financial statement preparation and analysis of asset, liability, and equity measurement.
Prerequisites: ACCTNG 310 or ACCTNG 5517 (or equivalent).

ACCTNG 5559 Advanced Financial Accounting Theory Credits: 3
A study of advanced topics in financial accounting. Topics include business combinations and financial statement consolidation theory and practice.
Prerequisites: ACCTNG 311 (or equivalent).

ACCTNG 5560 Introduction To Auditing And Accounting Systems Credits: 3
Fundamentals underlying the design of accounting systems and the processing of accounting data. Current auditing standards and procedures are extensively investigated, with emphasis on the nature of internal control, audit evidence, and audit reports. NOT available for students who have completed ACCTNG 405.
Prerequisites: ACCTNG 5558 (or equivalent).

ACCTNG 5561 Personal Financial Planning Credits: 3
A study of the personal financial planning process and environment, with the goal of training participants to prepare integrated financial plans. Topics addressed include an overview of insurance, retirement, investments, debt management, tax issues, estate planning and professional ethics.
Prerequisites: ACCTNG 5517 (or equivalent).

ACCTNG 5564 Principles of Internal Auditing Credits: 3
A study of how the internal auditor determines the nature and amount of evidence that should be accumulated considering the unique aspects of an engagement, as well as some idea of how that evidence is evaluated in the context of a financial audit.
Prerequisites: ACCTNG 311 and ACCTNG 350 or equivalent.

ACCTNG 5565 Advanced Accounting Systems Credits: 3
An in-depth analysis of various contemporary issues in accounting information systems.
Prerequisites: ACCTNG 350 (or equivalent).
ACCTNG 5567 Information Systems Control And Audit Credits: 3
A study of the theory and practices employed to provide a secure computing environment. Potential threats to information systems as well as controls designed to counter those threats are emphasized.
Prerequisites: one previous graduate course in accounting systems, management information systems, or computer science.

ACCTNG 5568 Data Analytics for Accounting Credits: 3
Data Analytics is an investigation of the stories large data stores can tell if only we know how to unravel the story. As such, this course will investigate big data sources from both a data-mining and a hypothesis-testing approach.
Prerequisites: ACCTNG 405 or equivalent.

ACCTNG 5569 Information Systems Consulting Credits: 3
An application of systems concepts to the evaluation of information systems of local organizations. Student teams will analyze, document and make recommendations for the improvement of these systems, and will communicate their findings via written reports and oral presentations.
Prerequisites: one graduate information systems course.

ACCTNG 5570 Fraud Auditing Credits: 3
This course is designed to provide students with an understanding of accounting-based fraud and the fraud audit process. This course will examine fraud risks and ways to manage, prevent, and detect the occurrence of fraud.
Prerequisites: ACCTNG 405 (or equivalent).

ACCTNG 5571 Individual Tax Problems Credits: 3
A study of substantive issues relating to individual taxation using the Internal Revenue Code and Regulations as sources. Topics include a detailed study of current issues such as alternative minimum tax, passive losses, and employee business expenses.
Prerequisites: ACCTNG 5557 (or concurrent enrollment in ACCTNG 409).

ACCTNG 5572 Tax Theory And Business Applications Credits: 3
A study of substantive issues relating to the taxation of business entities including multi-jurisdictional considerations. Topics include business formation and dissolution, business valuation, selection of business entity, compensation of employees, sales or exchanges of business property, and business tax credits.
Prerequisites: ACCTNG 409 or ACCTNG 5557 (or equivalent).

ACCTNG 5573 Taxation Of Estates, Gifts, And Trusts Credits: 3
A study of substantive issues in the income taxation of estates and trusts and the taxation of estates and gifts using the Internal Revenue Code and Regulations as sources. Emphasis will be placed on lifetime and post-mortem planning techniques as well as compliance requirements.
Prerequisites: ACCTNG 409 or ACCTNG 5557 (or equivalent).

ACCTNG 5574 Tax Accounting Credits: 3
A study of substantive issues relating to the accounting aspects of federal income taxation. Topics include methods of income and expense reporting, adoption of and change in accounting periods and methods, and annual accounting and transactional concepts.
Prerequisites: ACCTNG 409 or ACCTNG 5557 (or equivalent).

ACCTNG 5575 Managerial Accounting: Issues, Tools And Analysis Credits: 3
A look at various tools used to assist in the planning, control, performance evaluation, and decision-making activities of managers. Contemporary issues that confront management are introduced where appropriate.
Prerequisites: ACCTNG 307 or ACCTNG 5556 (or equivalent).

ACCTNG 5576 Tax Research, Procedure And Practice Credits: 3
An introduction to research sources and methods with an emphasis on analysis and communication of conclusions. Administrative procedures of the Internal Revenue Service and the professional responsibilities of tax practitioners will also be addressed.
Prerequisites: ACCTNG 409 or ACCTNG 5557.

ACCTNG 5577 Advanced Auditing Credits: 3
An analysis of real-world cases of audit problems with emphasis on red flags, pressures auditors face, and serious implications of audit failure (both perceived and real).
Prerequisites: ACCTNG 405 (or equivalent).

ACCTNG 5578 Current Problems In Accounting Credits: 3
This course will focus on an in-depth exploration of specific problems including, but not confined to those accounting problems which have resulted in official positions being published or considered by the accounting profession.
Prerequisites: ACCTNG 311 (or equivalent).
ACCTNG 5579 Theory Of Income Determination Credits: 3
This course will consider the historical and cultural development of accounting principles and the relationship of those principles to economic concepts of profit and cost. Consideration of the economic aspects of accounting measurements will provide a vehicle for exploring accounting problem areas in terms of both internal and external reporting needs. Pertinent literature in the field will be explored as a basis for both oral and written reports.
Prerequisites: ACCTNG 420 (or equivalent).

ACCTNG 5580 Financial Reporting Systems Credits: 2
Introduces generally accepted accounting principles and concepts along with the preparation and analysis of financial statements.
Prerequisites: Admission to Executive MBA Program.

ACCTNG 5582 Global Accounting Challenge Credits: 1-3
An international simulation of the challenges that exist when global teams address international accounting issues. Requires International travel.

ACCTNG 5587 Special Topics Credits: 3
This course is designed to facilitate one of two purposes: an initial offering of a new course (prior to formal approval) or an initial and possible only offering of new topics.

ACCTNG 5590 Becker CPA Review Funded Credit: 1
Structured review of materials for the Financial, Auditing, Business Environment and Regulatory sections of the CPA examination.
Prerequisites: Student must be within one year of exam eligibility.

ACCTNG 5591 Becker CPA Review Partial Funding Credit: 1
Structured review of materials for the Financial, Auditing, Business Environment and Regulatory sections of the CPA examination.
Prerequisites: Student must be within one year of exam eligibility.

ACCTNG 5592 Becker CPA Review Self Funded Credit: 1
Structured review of materials for the Financial, Auditing, Business Environment and Regulatory sections of the CPA examination.
Prerequisites: Student must be within one year of exam eligibility.

ACCTNG 5595 Internship Credit: 1
An opportunity for students to integrate their academic studies via employment with a business/organization in the community.

ACCTNG 5597 Independent Study Credits: 1-6
Independent study and research in areas of special interest under individual faculty direction.

ACCTNG 5597B Special Topics In Accounting:Cost/Managerial Accounting Theory Credits: 1-3
Students will identify the political, social, ethical, regulatory, and global influences on the personal financial planning process; Students will apply personal planning techniques to a variety of personal situations; Students will demonstrate critical thinking skills by successfully completing unstructured homework problems and cases; Students will identify ethical issues relating to personal financial planning; Students will prepare written statements demonstrating their research and communication skills; Students will identify the benefits and risks of operating a financial consulting business.

ACCTNG 5899 Required Graduate Enrollment Credit: 1

Anesthesia (ANESTH)

Courses

ANESTH 5505 Anatomy for Anesthesiologist Assistants I Credit: 1
This course is designed to meet the needs of students seeking a Master of Science in Anesthesia degree at UMKC. A thorough understanding of anatomy provides a basic foundation for future coursework and for the profession of Anesthesiologist Assistant. This course covers gross anatomy from a regional (or systemic in some cases) perspective bringing together all body systems present in each defined area of study.
Prerequisites: Acceptance to the MSA program.

ANESTH 5506 Anatomy for Anesthesiologist Assistants II Credit: 1
In this course, students will learn anatomy that directly impacts clinical situations. Diagnostic skills will be enhanced through an understanding of radiologic tests, identification of common chest X-rays, and a basic understanding of transesophageal echocardiography. Students will learn to recognize the basic 4 chamber TEE views and diagnose the most common lesions and abnormalities in patients undergoing cardiac surgery. An ultrasound machine will be used to identify anatomy for a variety of clinical procedures, including intravenous line placement, central line placement, arterial line placement, and peripheral nerve block placement. Students will learn the principles of how to operate and manipulate the ultrasound monitor, and will learn the relevant anatomy and anesthetic implications and management for the most common peripheral nerve blocks used today. In addition, clinically significant anatomy case studies in anesthesia will be presented and discussed.
Prerequisites: acceptance to master of science in anesthesia program.
ANESTH 5518 Professionalism for the Anesthesiologist Asst I Credits: 0.5
Introduction to legal and ethical areas of Anesthesiologist Assistant practice; professional behavior, legal obligations of anesthetists and patient, and social and community contexts of health care.
Prerequisites: Acceptance to M.S. Anesthesia program.

ANESTH 5528 Professionalism for the Anesthesiologist Asst II Credits: 0.5
Special topics in Anesthesiologist Assistant practice; impact of substance abuse, cognitive deficiency and mental illness in creating an impaired provider.
Prerequisites: acceptance into MSA program.

ANESTH 5538 Professionalism for the Anesthesiologist Asst III Credits: 0.5
Special topics in Anesthesiologist Assistant practice; principles of evidence based medicine and approaches to mastering life long learning and maintaining professional competencies.
Prerequisites: acceptance into MSA program.

ANESTH 5540 Patient Monitoring and Instrumentation Credits: 3
This is a three credit hour course which integrates concepts of circuits and engineering with the clinical application of anesthesia instrumentation. To the extent possible, the material covered will be directly linked to clinical scenarios. In order for the monitors to be fully understood from a clinical management perspective, relevant physiology related to the monitors and to the field of anesthesia will be taught and practiced. In addition to the monitors, students will gain an in depth understanding of all parts of the anesthesia machine, anesthesia circuits, central line and arterial line equipment, and the properties of common intravenous and inhalational anesthetics.

ANESTH 5541 Methods of Anesthesia I Credits: 2
In this course, students will be prepared to give safe anesthesia in all types of cardiac surgery, learn how to interpret arterial blood gases, and obtain an in depth understanding of ACLS principles so that they will be prepared for any resuscitation scenario in the OR. A cardiac drug card will be administered. Videos and PPTs will be administered to help students understand the concepts of ACLS, acid base management, cardiac bypass, cardiac surgery monitoring, techniques, and anesthetic management.
Prerequisites: ANESTH 5540.

ANESTH 5548 Anesthesiologist Assistant Senior Seminar Credits: 0.5
This is 0.5 credit hour course taken in the final semester of the Master of Science in Anesthesia Program and is designed to prepare the student for their future roles. This course will prepare the student for the job market and placement and enforce the life-long learning needed within medical professions. The course will contain information on student loan payback, financial literacy after graduation, and leadership opportunities for the graduate. The course will also clinically update the students in basic life saving for the healthcare provider (BLS), advanced cardiac life saving (ACLS) and Pediatric advance life saving (PALS).

ANESTH 5549 Physiology for Anesthesiologist Assistants I Credits: 3
This course is the first of two parts of a human physiology series. The course is designed to provide an understanding of basic neurophysiology, autonomic nervous system, blood, respiratory and cardiovascular physiology. Topics of special interest to anesthesiologist assistants will be highlighted.

ANESTH 5550 Physiology for Anesthesiologist Assistants II Credits: 2
This course is the 2nd of two parts of a human physiology series. The course is designed to provide an understanding of endocrine, reproductive, neonatal, gastrointestinal, and neurophysiology. Topics of special interest to anesthesiologist assistants will be highlighted as it relates to the physiology.
Prerequisites: ANESTH 5556.

ANESTH 5558 Anesthesia & Co-existing Disease I Credits: 2
This course provides an essential anesthesia link to the basic anatomy and physiology classes in the Masters of Science in Anesthesia program. The content outline intentionally corresponds with and builds upon that of the Physiology for Anesthesiologist Assistants coursework. This course focuses on primary cardiac, respiratory and endocrine coexisting diseases that affect anesthetic care. It provides for the student a strategic plan in the management of patients with these disease processes.
Prerequisites: ANESTH 5556.

ANESTH 5559 Anesthesia & Co-existing Disease II Credits: 2
This is the second course that establishes an essential anesthesia link to the basic anatomy and physiology classes in the Masters of Science in Anesthesia program. The content outline intentionally corresponds with and builds upon that of the Physiology for Anesthesiologist Assistants coursework. This course focuses on a variety of coexisting diseases states but all focuses on pediatric and obstetric co-existing disease and how they affect anesthesia management.
Prerequisites: ANESTH 5558.

ANESTH 5560 Introduction to Anesthesia Credits: 2
Introduction to basic concepts dealing with clinical anesthesia. Medical terminology, human anatomy, medical chart interpretation and drug dosage calculations.
ANESTH 5561 Orientation to Simulation and Clinical Application Credits: 5
This three hour skills based course is an introduction to the student’s clinical experience in the operating room. The goal is to rapidly engage students in anesthesia patient care. Fundamental procedures and techniques used in administering anesthesia will be emphasized. Simulated clinical models are used to allow students to first practice anesthesia care in a safe, controlled, low pressure environment. Students are prepared for quality immersion into patient care. Operating room set up and etiquette, pre-operative assessment, IV placement techniques, airway management, intraoperative care, and postoperative management are emphasized. Course includes hands on introduction to the operating room and anesthetic management and students obtain 80-100 hours of clinical contact time.

ANESTH 5562 Anesthesia Clinical Correlation I Credit: 1
A series of conferences presented by faculty and students that applies to anesthetic theory as it relates to the clinical experience. Specific anesthetic situations are emphasized.
Prerequisites: ANESTH 5560.

ANESTH 5563 Anesthesia Clinical Experience I Credits: 4
During this course students gain clinical and professional experience in the operating room. In this course students are expected to perform program competencies with the level of assistance developed in the programs goals for skills development. Students will be one on one with a Certified Anesthesiologist Assistant or Anesthesiologist clinical supervisor while obtaining these goals. Students will complete a specific IV, pre-surgical testing and post anesthesia care unit rotation during their clinical experience courses.
Prerequisites: ANESTH 5561.

ANESTH 5564 Anesthesia Clinical Correlation II Credit: 1
This one credit course is designed to help students understand how to effectively research and apply current anesthesia journal articles, and to prepare for the NCCAA certification examination. The students will spend the entire semester studying 6 (Principles of anesthesia/ Instrumentation and monitoring, anesthesia delivery systems, physics / renal, genital urologic / respiratory system / clinical subspecialties) of the 16 topics that are included on the NCCAA certification examination. Homework will include submission of test questions based on their presentations and the 6 assigned NCCAA testing topics. The students will also receive an assignment to find and summarize a journal article from one of the 6 assigned topics. The students will cap off the semester with a clinical final examination, which includes submited questions from assigned topics.
Prerequisites: ANESTH 5562.

ANESTH 5565 Anesthesia Clinical Experience II Credits: 8
During this course students gain clinical and professional experience in the operating room. In this course students are expected to perform program competencies with the level of assistance developed in the programs goals for skills development. Students will be one on one with a Certified Anesthesiologist Assistant or Anesthesiologist clinical supervisor while obtaining these goals. Students will complete a specific IV, pre-surgical testing and post anesthesia care unit rotation during their clinical experience courses.
Prerequisites: ANESTH 5563.

ANESTH 5567 Anesthesia Clinical Experience III Credits: 16
Clinical clerkship component of program clinical phase. Students are in the operating room (OR) five days per week and through the combined clinical experience clerkships will receive extended exposure to all clinical subspecialties. Students complete 4 week or 8 week rotations at several hospitals to gain experience with general surgery, obstetrics, pediatrics, trauma surgery, neurosurgery, cardiovascular surgery, orthopedic surgery, intensive care unit and others. Students are expected to perform program competencies with the level of assistance developed in the programs goals for skills development. Students will be one on one with a Certified Anesthesiologist Assistant or Anesthesiologist clinical supervisor while obtaining these goals.
Prerequisites: ANESTH 5565, ACLS and PALS certification.

ANESTH 5568 Anesthesia Clinical Correlation III Credit: 1
This one credit course is designed to help students understand how to effectively research, apply, and prepare for the NCCAA certification examination. The students will spend the entire semester studying 4 (cardiovascular/ Hematology coagulation / Metabolism endocrine / Neurosciences neuromuscular) of the 16 topics that are included on the NCCAA certification examination. Homework will include submission of test questions based on the 4 assigned NCCAA testing topics. The students will cap off the semester with a clinical final examination, which includes submitted questions from the assigned topics. This course also includes a one week in person session where will identify risk management issues for anesthesia providers, learn key strategies when applying for a job and demonstrate key points of patient assessment in the ICU. Recertification for Basic Life Support (BLS) occurs during this course.
Prerequisites: ANESTH 5564.

ANESTH 5569 Anesthesia Clinical Experience IV Credits: 12
Clinical clerkship component of program clinical phase. Students are in the operating room (OR) five days per week and through the combined clinical experience clerkships will receive extended exposure to all clinical subspecialties. Students complete 4 week or 8 week rotations at several hospitals to gain experience with general surgery, obstetrics, pediatrics, trauma surgery, neurosurgery, cardiovascular surgery, orthopedic surgery, intensive care unit and others. Students are expected to perform program competencies with the level of assistance developed in the programs goals for skills development. Students will be one on one with a Certified Anesthesiologist Assistant or Anesthesiologist clinical supervisor while obtaining these goals.
Prerequisites: ANESTH 5567.
ANESTH 5570 Anesthesia Clinical Correlation IV Credit: 1
This one credit course is designed to help students understand how to effectively research and apply current anesthesia journal articles, and to prepare for the NCCAA certification examination. The students will spend the entire semester studying 6 (Peds the Neonatal Period / Pharmacology / Regional Anesthesia Pain Management/ GI Hepatic/ OB Perinatal Management) of the 16 topics that are included on the NCCAA certification examination. Homework will include submission of test questions based on their presentations and the 6 assigned NCCAA testing topics. The students will also receive an assignment to find and summarize a journal article from one of the 6 assigned topics. The students will cap off the semester with a final examination, which includes submitted questions from assigned topics.
Prerequisites: ANESTH 5568.

ANESTH 5571 Anesthesia Clinical Experience V Credits: 16
Clinical clerkship component of program clinical phase. Students are in the operating room (OR) five days per week and through the combined clinical experience clerkships will receive extended exposure to all clinical subspecialties. Students complete 4 week or 8 week rotations at several hospitals to gain experience with general surgery, obstetrics, pediatrics, trauma surgery, neurosurgery, cardiovascular surgery, orthopedic surgery, intensive care unit and others. Students are expected to perform program competencies with the level of assistance developed in the programs goals for skills development. Students will be one on one with a Certified Anesthesiologist Assistant or Anesthesiologist clinical supervisor while obtaining these goals.
Prerequisites: ANESTH 5569.

ANESTH 5573 Anesthesia Clinical Experience VI Credits: 16
Clinical clerkship component of program clinical phase. Students are in the operating room (OR) five days per week and through the combined clinical experience clerkships will receive extended exposure to all clinical subspecialties. Students complete 4 week or 8 week rotations at several hospitals to gain experience with general surgery, obstetrics, pediatrics, trauma surgery, neurosurgery, cardiovascular surgery, orthopedic surgery, intensive care unit and others. Students are expected to perform program competencies with the level of assistance developed in the programs goals for skills development. Students will be one on one with a Certified Anesthesiologist Assistant or Anesthesiologist clinical supervisor while obtaining these goals.
Prerequisites: ANESTH 5571.

ANESTH 5575 Pharmacology for Anesthesiologist Assistants I Credits: 2
Basic concepts in pharmacology: principles of drug action, receptor theory, pharmacokinetics, pharmacodynamics and drug dose calculations. The course will emphasize the primary medications used to provide anesthesia and to support patients during the perioperative period.

ANESTH 5576 Pharmacology for Anesthesiologist Assistants II Credits: 2
This course, designed for the M.S. in Anesthesia Program, introduces students to common pharmacological concepts as they apply to anesthesia. Basic concepts of pharmacology are taught: principles of drug action, receptor theory, pharmacokinetics, pharmacodynamics and drug dose calculations. The course emphasizes those medications and medication classes that are likely to be encountered by the anesthesiologist assistant.

ANESTH 5577 Methods of Anesthesia II Credits: 3
In this course, students will be prepared to manage anesthetics for more complex situations. Anesthetic management for certain patient conditions will include permanent implantable pacemakers, fluid electrolyte abnormalities, and congenital heart disease. Clinical management for individual patient populations will include obstetrics and pediatric advanced life support (PALS). In addition, clinically relevant information regarding advanced equipment and techniques will include 12 lead ECG interpretation, ultrasound guided peripheral nerve blocks, neuraxial anesthesia, and physics for anesthesiologist assistants.
Prerequisites: ANESTH 5541.

ANESTH 5585 Physiological Model-based Simulation I Credits: 2
This is a two credit hour course, which utilizes physiological model-based simulation and procedure simulation to integrate anesthesia-associated basic science knowledge into a laboratory setting. The focus for this semester is designed to help student become proficient in central lines, pulmonary artery monitoring, epidural and spinal placement, and managing more complex anesthetic cases involving trouble shooting and crisis management via simulation. Advanced Cardiac Life Saving is obtained during this course.

ANESTH 5586 Physiological Model-based Simulation II Credits: 2
This is a two credit hour course, which builds upon the technical skills learned in ANES 5585. Students will be asked to manage complex anesthetic cases involving multiple co-existing diseases and methods of anesthesia. Pediatric Advanced Lifesaving Saving (PALS) is a certification required to be obtained during this course.
Prerequisites: ANESTH 5585.

ANESTH 5590 Special Topic Credits: 0.5-3
An opportunity to explore new topics or existing topics in greater detail and are not included in the usual course offerings.

ANESTH 5601 Principles in Pediatric & Congenital Cardiovascular Perfusion I Credits: 3
Students will be introduced to fundamentals of congenital heart disease genesis, pediatric and congenital cardiovascular surgery, perfusion and cardiology. The course will delve into developmental cardiac embryology, the genetics congenital cardiac defects, types of congenital heart defects, diagnostic techniques, surgical considerations, and cardiopulmonary bypass methods and techniques. Faculty permission required for enrollment and limited to certified and new graduate perfusionists.
Prerequisites: Faculty permission required for enrollment and limited to certified and new graduate perfusionists.
ANESTH 5602 Principles in Pediatric & Congenital Cardiovascular Perfusion II Credits: 3
This course examines advanced topics in pediatric and congenital cardiovascular surgery, perfusion and cardiology. Emphasis on physiology, mechanical assist, transplantation, fetal delivery and interventions will be discussed.
Prerequisites: Faculty permission required for enrollment and limited to certified and new graduate perfusionists.

Art (ART)

Courses
ART 5405 Practices in the Visual Arts Classroom Credits: 3
Students preparing to student teach in the spring semester read, reflect on and master the use of current research in art education and study, practice and master the use of general education thoughts of today.

ART 5506 Graduate Photography Credits: 3-6
Photography on the graduate level with individual selection of media and technique. May be repeated up to a total of 15 hours.

ART 5510 Graduate Painting Credits: 3-6
Painting on the graduate level with individual selection of medium and technique. May be repeated up to a total of 15 hours.

ART 5513 Graduate Graphic Design Credits: 3-6
Graphic design on the graduate level with individual selection of medium and technique. May be repeated up to a total of 15 hours.

ART 5515 Graduate Drawing Credits: 3-6
Drawing on the graduate level with individual selection of media and technique. Student may pursue selected projects on a group or individual basis. May be repeated up to a total of 15 hours.

ART 5520 Graduate Print Media Credits: 3-6
Print media on the graduate level with individual selection of medium and technique.

ART 5540 Graduate Digital Imaging Credits: 3-6
Digital imaging on the graduate level with individual selection of subject and technique. Permission of the department is required.

ART 5550 Graduate Performance Art Credits: 3-6
Performance art on the graduate level with individual selection of medium and technique. May be repeated up to a total of 15 hours.

ART 5576 Graduate Digital Video and Motion Design Credits: 3-6
Digital video and motion design on the graduate level with individual selection of subject and technique. Permission of the department is required.

ART 5588 Graduate Studio Art Seminar Credits: 3-6
Studio art seminar for graduate students in any medium. Course will focus on professional practices, as well as the development of a sustainable artistic career. Individual artistic production and shared critiques will be required.
Prerequisites: Studio Art Graduate Students or permission of Art Graduate Advisor

ART 5591 Directed Technical Studies Credits: 2-4
Individually directed studies or research in selected projects of a technical nature in studio art. May be repeated up to a total of six hours applicable to a degree program.

ART 5599 Research And Thesis Credits: 1-9
Production and/or writing of thesis. Usually taken in the last term of candidacy.

ART 5899 Required Graduate Enrollment Credit: 1

Art History (ART-HIST)

Courses
ART-HIST 5501 Scope And Methods Of Art History Credits: 3
An exploration of the discipline of art history, including theoretical issues, guiding questions and problems, diverse approaches (historical and current), and research tools. Required of all Art History graduate students and best taken early in one’s studies.

ART-HIST 5539 Paris in the Age of Rococo Credits: 3
In the early 18th century, Paris overtook Rome as the artistic center of Europe. We explore all of the visual arts during the vibrant "Rococo," the age of Watteau, Chardin, and Boucher.

ART-HIST 5540 Seminar in French Art: Renaissance and Baroque Credits: 3
A history of French art from the time of Louis XII through the Age of Louis XIV, with emphasis on painting and architecture.

ART-HIST 5541 Seminar in Northern Baroque Art: The Age of Rubens, Rembrandt, and Wren Credits: 3
The arts of England and the Low Countries in the 17th and early 18th centuries. Emphasis on painting and the graphic arts in the Spanish and Dutch Netherlands, and on architecture in England.

ART-HIST 5547 Seminar in Italian Baroque Art: The Age of Caravaggio, Bernini, and Borromini Credits: 3
Painting, sculpture, and architecture in Italy from the creation of the Baroque style in the late 16th century to the beginnings of the Barochetto era.
ART-HIST 5548 Seminar in Span Art: El Greco to Goya Credits: 3
A study of Spanish art from the later 15th Century to the Napoleonic invasion.

ART-HIST 5561 Traditional and Contemporary Native American Art Credits: 3
This course aims to inspire students to appreciate the history and aesthetics of traditional and contemporary Native North American arts. We examine cultural and aesthetic continuities between Meso-American and Native North American Arts. Then we explore how Native American arts reflect the history of North America, including influences from Europeans, and conclude with contemporary Native American artists and their incorporation of various global influences.

ART-HIST 5562 History of Modern Design Credits: 3
This course examines innovations in design, beginning with the Arts and Crafts movement in the 19th century, surveying all the major design trends of the twentieth century, and concluding with contemporary developments in the age of the computer.

ART-HIST 5563 Primitivism and Its Aftermath Credits: 3
This course explores one of the seminal movements of the modern era and its ramifications for the visual arts today. Class discussions will consider the complexities and contradictions of primitivism and its rejection through their appropriations from archaic, folk, and non-western art traditions, from 1800-on, while also situating these creative endeavors within the cultural and political contexts of the period.

ART-HIST 5564 Modern Art and the Grotesque Credits: 3
The course explores how the grotesque shaped the history, practice and theory of art in the nineteenth and twentieth centuries. The grotesque plays a major role in many modern styles, and its expressive possibilities encompass the capriccio, the carnivalesque and burlesque, the fantastic, and the abject and uncanny. Artists have incorporated the grotesque as a means to push beyond established boundaries, explore alternate modes of experience, and to challenge cultural and aesthetic conventions.

ART-HIST 5565 Seminar In American Art Credits: 3
Graduate-level seminar dealing with an announced area in American art. May be repeated once, provided there is a change in the area of concentration.

ART-HIST 5566 Seminar In 19th-Century Art Credits: 3
Graduate-level seminar dealing with an announced area in 19th-century art. May be repeated once, provided there is a change in the area of concentration.

ART-HIST 5567 Seminar In 20th-Century Art Credits: 3
Graduate-level seminar dealing with an announced area in 20th-century art. May be repeated once, provided there is a change in the area of concentration.

ART-HIST 5568 Participatory Forms of Spectatorship in Contemporary Art Credits: 3
This course explores art practices from the second half of the 20th century that challenge spectators to become more actively involved in the reception and even in the production of art. The course will examine the sociopolitical conditions and technological developments which have contributed to the strengthening of participatory tendencies in contemporary art.

ART-HIST 5569 Sensing, Feeling, Thinking: Contemporary Art and the Mind Credits: 3
Contemporary artists are challenging viewers to reflect on how they perceive, feel and think. This seminar provides an introduction to the mental processes underlying emotion and visual cognition and familiarizes students with contemporary art practices that reveal the dynamic correlations between body, mind and subjectivity.

ART-HIST 5570 Seminar In Renaissance Art Credits: 3
Graduate-level seminar dealing with an announced area in Renaissance art. May be repeated once, provided there is a change in the area of concentration.

ART-HIST 5571 Seminar In Art Of Africa, Oceania And New World Cultures Credits: 3
Seminar in art of Africa, oceania and new world cultures. May be repeated once, provided there is a change in the area of concentration.

ART-HIST 5572 Seminar In Asian Art Credits: 3
Seminar dealing with an announced area in Asian Art. May be repeated once, provided there is a change in the area of concentration.

ART-HIST 5573 Visual Arts Administration Credits: 3
This course on professional arts administration includes assignments in: copyright laws, database management, ethics issues, evaluation design, gallery museum management, grant writing and budgeting, public relations, resume design, tax laws, and website design and management. Students are required to learn relevant computer programs. This course is also open to music and theatre majors. Research requirements for graduate credit are more comprehensive and professional.

ART-HIST 5575 Seminar In Baroque Art Credits: 3
Graduate-level seminar dealing with an announced area in Baroque art. May be repeated once, provided there is a change in the area of concentration.

ART-HIST 5576 Site-Specific Art: Within and Beyond the Museum Walls Credits: 3
At a time of increased transnational mobility, contemporary artists are conceiving artworks that catalyze an enhanced awareness of the geographical and socio-political conditions of existence and art making. This seminar examines artworks that are produced outside the studio and are inspired by specific natural environments, museum settings and public spaces.
ART-HIST 5577 Contemporary Artists of the African Diaspora Credits: 3
This course examines cultural and aesthetic continuities between traditional and contemporary arts and artists in Africa and in the Americas, including the study of contemporary Africans whose cultures had the greatest influence in the Americas, as well as contemporary African-American artists in Brazil, Cuba, Haiti, and the United States.

ART-HIST 5579 From the Parthenon to the Altar of Peace Credits: 3
The course centers on many different styles of Greek and Roman art from the fifth century B.C. to the early first century A.D. Attention is also paid to the political and literary forces behind its imagery. Three monuments serve as the pillars upon which the course rests: the Parthenon, Pergamon Altar, and the Ara Pacis. The lessons learned about style, the interaction of politics, literature, and art and the foibles of scholarship are intended to be applied to other fields of art history.

ART-HIST 5580 Art Museums: History and Practice Credits: 3
This course will familiarize students with the history of art museums and collecting practices. It will cover theories of museum government, curating, and object interpretation. Students will explore changes in the functions of art museums and will develop practical skills for future museum employment.

ART-HIST 5590 Directed Studies In Art History Credits: 1-6
Individually directed studies or research in selected topics or problems in art history. May be repeated up to a total of six hours applicable to a degree program.

ART-HIST 5599 Research & Thesis Credits: 1-9
Production and/or writing of thesis. Usually taken in the last term of candidacy.

ART-HIST 5699 Research And Dissertation Credits: 1-12
Dissertation Research and writing in Art History.

Arts & Sciences - General (A&S)

Courses

A&S 5500 Interdisciplinary Colloquium On Aging Credits: 3
This course will introduce students to gerontology as a field of study and as a profession. The context for the emergence of the field is set in important demographic transitions of the 20th century. Identification and understanding of major issues and controversies in the field will help locate the contributions of a range of disciplines to aging studies. The connection of these issues with the development of social policies will be discussed.

A&S 5500C Interdisciplinary Colloquium On Aging III Credits: 1-2

A&S 5500L Special Readings Topics/Philosophy Credits: 1-3

A&S 5500P Special Topics-Readings Psychology Credits: 1-3

A&S 5500Q Special Readings/Topics Theatre Credits: 1-3

A&S 5501 Special Readings/Topics Credits: 1-3
This is a designated Arts and Sciences course which gives all departments in the College the flexibility to offer, on demand and as the need arises, a graduate-level readings course in a particular area of specialization in any discipline in the College. The individual departments determine the content of the course in any given semester in the same manner as any reading course, special topics, or independent study is presently handled. The departments are responsible for approving individuals or groups for the course and determine whether or not the course will be included as a part of a post-baccalaureate degree in their disciplines.

A&S 5501B Special Topics: Critical Thinking In Social Studies Credits: 1-3

A&S 5501D Special Readings/Topics Credits: 1-3

A&S 5501E Special Readings/Topics Credits: 1-3

A&S 5501K Special Topics Credits: 1-4

A&S 5502 Introduction To African American Studies Credits: 3
This course provides an introduction to the contexts, theories, and methodologies that undergird African American studies. In addition to substantial time spent covering particular research skills and resources, students will also be introduced to African American culture and the issues related to African studies from several perspectives: history, literature, sociology, communication studies, and the like. Influences and perspectives from Africa, the Caribbean, and South America will also be covered. The course will thus provide a broad background in African American culture and history, an introduction to the methodologies of several disciplines, and discussion of particular contemporary and historical issues such as slavery, segregation and integration, the Civil Rights Movement, Pan-Africanism, Afrocentrism, and current political debates.

A&S 5505 Career Education And Transition In Special Education Credits: 3
This course is designed to increase awareness and knowledge about current disabilities legislation, vocational education, vocational rehabilitation, quality transition programs, school to work, self advocacy, workplace accommodations and comprehensive life skills learning.

Prerequisites: EDUC-SP 407 (or equivalent).
A&S 5509 Methods Of Inq: Research Issues And Methods In The Liberal Arts Credits: 3
This course serves as an introduction to various methods of inquiry and research in the humanities, social sciences, and sciences. This course includes graduate level instruction in library research use of computer generated research tools and a strong emphasis on academic writing.

A&S 5515 The Aging Body: Causes and Consequences Credits: 3
This course will explore biological changes that occur with aging. Plasticity, frailty, stress, coping, and chronic illness will be viewed through the biopsychosocial lens. Biomedical discoveries and implications for the future of aging will be discussed.

A&S 5520 Critical Choices: Final Research Project And Capstone Seminar Credits: 3
This seminar is designed as a capstone experience for students in the last semester of their studies in the Master of Arts in Liberal Studies program. Each student defines a final research project, spends the semester developing it, and presents his or her findings to the seminar at the conclusion of the course. Each project is intended to be thought-provoking and to be researched from an interdisciplinary point of view.

A&S 5535 Directed Studies In Liberal Arts Credits: 1-3
Open to students in the Master of Arts in Liberal Studies Program, this course offers students the opportunity to pursue independent work at the graduate level on selected topics of an interdisciplinary nature, working with faculty members from at least two different departments. The course may not be repeated beyond a total of three credit hours.

A&S 5540 Liberal Arts Thesis Credits: 1-3
Open to students in the Masters of Arts in Liberal Studies Program who wish to include a written thesis in their program of studies. The course may not be repeated beyond a total of three credit hours.

A&S 5550 Seminar In Social Science Perspectives Study Of Community Credits: 3

A&S 5571A Seminar In The Social Sciences Credits: 1-6
This is a designated Arts and Sciences course which gives all departments in the College the flexibility to offer, on demand and as the need arises, a graduate level seminar in a particular area of specialization in any discipline in the college. The individual departments determine the content of the course in any given term in the same manner as any seminar is currently handled.

A&S 5572 Seminar In Philosophy Of Science I Credits: 3

A&S 5591 Practicum In Community Social Science Research Credits: 3

A&S 5592 Field Practicum In Aging Credits: 3-8
Students spend 180-480 hours in a field placement with the supervision in a community agency or organization which services or advocated for older persons and keep a journal documenting and reflecting on the practicum activities and experiences, particularly as related to gerontological theory and research. Students will study a particular subject relevant to their placement and describe this in a written project.

A&S 5899 Required Graduate Enrollment Credit: 1

Basic Medical Science (BMS)

Courses

BMS 5590 Special Topics Credits: 1-3
An opportunity to explore new topics or existing topics in modified or greater detail; topics which are not included in the usual course offerings.

BMS 9265 Human Biochemistry 1 - Medical Credits: 5
Presents basic principles of human biochemistry. Addresses structure, function, biosynthesis, degradation and utilization of the major constituents of living systems. Employs an integrative approach to the basic science and clinical medicine aspects of normal and defective metabolism.

BMS 9296 Human Structure Function I Credits: 6
Part 1 of a 4 part series (January-February). Integrated course in anatomy, histology, embryology, physiology and biochemistry. This unit covers introductory principles and the musculoskeletal system.

BMS 9297 Human Structure Function II Credits: 5
Part 2 of a 4 part series (February-April). Integrated course in anatomy, histology, embryology, physiology and biochemistry. This unit covers cardiopulmonary and gastrointestinal systems.

BMS 9298 Human Structure Function III Credits: 5
Part 3 of a 4 part series (April-May). Integrated course in anatomy, histology, embryology, physiology and biochemistry. This unit covers urinary and reproductive systems.

BMS 9300 Human Gross Anatomy I Credits: 5
Regional study of the anatomy of the chest, abdomen and pelvis. A systematic and regional study of the anatomy of the maxillofacial and anterior neck structures with emphasis on the biomechical applications of the anatomy studies.

BMS 9301 Human Gross Anatomy II Credits: 5
A continuation of BMS 9300.

BMS 93065 Anatomy of the Head & Neck Credits: 2
A regional approach to the study of the head and neck. Content will include a brief discussion of human anatomy and didactic information on the structures of the head and neck as they relate to the practice of dental hygiene.
BMS 9308 Histology Credits: 2.5
A motivative microanatomic study of the normal morphology of cells, tissues, organs and organ systems to stimulate the learning of terminology and basic cellular structure of the human body.

BMS 9310 Medical Neurosciences Credits: 9
Lecture-based course covering major neurological disorders and disease states. Specific neurologic diseases will be correlated to the didactic sessions by clinicians. Laboratory component is oriented around brain dissection sessions. Laboratory experience will demonstrate gross lesions and integrate the lesions with the clinical symptoms. A variety of supplemental audiovisual material also supports the class.

Prerequisites: Successful completion of HSF III and enrollment in HSF IV.

BMS 9311 Medical Microbiology Credits: 5
Covers basic scientific principles of virology, bacterial physiology and genetics. Presents information relevant to the pathogenesis of human infections caused by viruses, bacteria, fungi, protozoa and helminthes. Provides a concise presentation of basic immunological principles and their clinical relevance. Provides a concise review of antimicrobial therapeutic regimens including mechanism of action and clinical settings in which specific agents might be used. Utilizes case presentations to illustrate the manner in which reasonable differential diagnoses are developed and a rational approach toward empiric antimicrobial usage.

BMS 9399 Human Structure Function IV Credits: 6
Part 4 of a 4 part series (June-July). Integrated course in anatomy, histology, embryology, physiology and biochemistry. This unit covers the head and neck system. Includes a comprehensive examination for the Human Structure Function Series I-IV.

BMS 9701 Clinical Anatomy of Head and Neck Credits: 2-4
A detailed dissection of the maxillofacial and anterior neck regions, with the emphasis being placed on the clinical application of the surgical procedures used in these areas. This course may not be used to satisfy Cell Biology and Biophysics or Molecular Biology and Biochemistry discipline-specific requirements for the Interdisciplinary Ph.D. program.

Bassoon (BASSOON)

Courses
BASSOON 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Co-requisites: Enrollment in lessons or recital.

BASSOON 5500A Graduate Bassoon-Secondary Credits: 2
BASSOON 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

BASSOON 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

BASSOON 5501 Graduate Bassoon - Masters Performance Credits: 4
BASSOON 5601 Graduate Bassoon - Doctoral Performance Credits: 4

Biological Sciences (BIO-SCI) - Oral & Craniofacial Sciences

Courses
BIO-SCI 5700 Biomaterials Teaching Credits: 2
Through this course, students will acquire teaching experience in graduate and undergraduate biomaterials.

BIO-SCI 5706 Growth and Development I Credit: 1
A course designed to teach the general principles of normal and abnormal physical, psychological and social growth and development of children and adolescents. The growth and development of the craniofacial structures is emphasized. The diagnosis of malocclusions is stressed. Consideration is given to possible approaches to their treatment.

BIO-SCI 5707 Growth and Development II Credits: 1-2
A comprehensive study of the genetical aspects of growth and development with special analysis of the molecular control of these processes by both intrinsic and epigenetic factors.
Prerequisites: BIO-SCI 5706.

BIO-SCI 5710 Genetics and Biochemistry of Cranial Facial Biology Credits: 2
Biochemistry of oral structures and the effect of oral diseases on these structures. This course may not be used to satisfy Cell Biology and Biophysics or Molecular Biology and Biochemistry discipline-specific requirements for the Interdisciplinary Ph.D. programs.
BIO-SCI 5739 Biomaterials for the Dental Specialist Credit: 1
Discussion of basic biomaterials principles and terminology including explanation of physical, mechanical and surface chemical properties, metallurgy, polymer chemistry, ceramics and composites. Clinical examples of how these principles apply to Prosthodontics, Endodontics and Orthodontics will be presented. Students cannot take both this course and BIO-SCI 5742 for credit.

BIO-SCI 5740 Oral Pathology I Credits: 2
A study of the clinical and histopathologic features of oral diseases, including inflammatory, degenerative, metabolic, and neoplastic diseases and developmental disturbances.

BIO-SCI 5742 Biomaterials for the Restorative and General Dentist Credits: 2
A thorough discussion of basic biomaterials principles and how they apply to the practice of general and restorative dentistry. Students cannot take both this course and BIO-SCI 5739 for credit.

BIO-SCI 5743 Advanced Seminar in Dental Biomaterials Credits: 1-2
The use and behavior of dental biomaterials in Pediatric Dentistry, Prosthodontics, Orthodontics, and Restorative Dentistry will be discussed in depth. Current basic and clinical literature related to these areas will be discussed and research information to improve dental practice will be presented. **Prerequisite:** BIO-SCI 5739 (or BIO-SCI 5742).

BIO-SCI 5747 Research Instrumentation Used in Dental Biomaterials Credits: 2-4
A discussion and laboratory use of instrumentation employed in dental biomaterials research. Practical hands-on experience will include calibration and use of specific research equipment including the Instron, metallurgical mounting and polishing equipment, measuring microscope, metallograph, and contact angle gonemeter.

BIO-SCI 5750 Special Problems in Dental Biomaterials Credits: 2-4
The student will select or be assigned a special research problem including appropriate literature reviews of a special topic in dental biomaterials. Emphasis will be placed on the correlation between basic and clinical research. The design and conduct of clinical research will be discussed.

BIO-SCI 5751 Elements of the Scientific Method Credits: 1-2
Through individualized instruction with thesis committee chair, student will conduct a literature review in preparation for developing a research question leading to the thesis research proposal. Students will select and rotate through a minimum of four laboratories in the Department of Oral Biology conducting a short research project in each. At the end of the semester, a report is required reviewing the research project and the instrumentation in each laboratory. Students are also required to attend the weekly Department of Oral Biology Seminar Series and the monthly Professional Development Seminar Series. Research presentations cover a variety of biological, engineering and psychological disciplines relevant to oral science education and the oral health care profession. Presentations will be by faculty, students, and invited guest lecturers.

BIO-SCI 5752 Research Methods in Oral and Craniofacial Sciences Credits: 1-5
Student will write the thesis research proposal in consultation with committee chair and members plus obtain appropriate IRB and/or IACUC approvals. For the MS degree qualifying exam, the student will write the research proposal, present the research proposal at a committee meeting, and answer related questions. Following the successful completion of the qualifying exam, the research proposal is the basis of the MS thesis project. As the student identifies a research focus for the dissertation project, they will begin reviewing the literature.

BIO-SCI 5759 Special Problems in Pharmacology Credits: 2
Pharmacologic and therapeutic problems of special interest in the practice of dentistry.

BIO-SCI 5760 Physiology of Oral Mineralized Tissues Credits: 2
A study of the physiology of the oral hard tissues with emphasis on the mechanisms of the growth, remodeling, and healing of maxillomandibular bones and on the mechanism of dentinogenesis. This course may not be used to satisfy Cell Biology and Biophysics or Molecular Biology and Biochemistry discipline-specific requirements for the Interdisciplinary Ph.D. program.

BIO-SCI 5780 Teaching Of Dentistry Credits: 1-2
A consideration of the problems of teaching in dental schools. Each department of the School of Dentistry will report on its teaching methods. The student will observe lectures and laboratory teaching in each department.

BIO-SCI 5790 Directed Research In Oral and Craniofacial Sciences Credits: 1-6
Student utilizes beginning research skills to design, conduct and report an individual research project under the direction of the faculty.

BIO-SCI 5799 Research And Thesis Credits: 1-9
The satisfactory completion of an original research project. Results of the research and critical review of the pertinent literature are incorporated into a thesis. Credit is awarded after the student's thesis is successfully defended and accepted by the School of Graduate Studies.

BIO-SCI 5801 Readings in Immunology Credits: 1-3
A detailed study of special topics in immunology. Specific topics to be arranged with the instructor. This course may be repeated by doctoral students for a maximum of 3 credit hours. **Prerequisites:** LS-MCRB 435.

BIO-SCI 5802 Immunopathology Credits: 2
A detailed study of selected topics in immunopathology with emphasis on physicochemical barriers such as cutaneous and mucosal immune systems. **Prerequisites:** LS-MCRB 435.
BIO-SCI 5805 Molecular Biology of Oral Microflora Credits: 2-3
Lecture and discussion. The course will provide an overview of the ecology of oral microbial flora and its role in oral health and disease. Students will examine the taxonomy and ecology of normal and pathogenic oral microbial flora, acquisition of the oral microbiota and the formation of dental plaque as a biofilm. The course will also explore other aspects of microbial biology, such as; bacterial virulence factors and pathogenesis; host defense mechanisms; systemic complications of periodontal disease; antibiotics and antibiotic resistance. The second part of the course will review the effect of recent advances in molecular biology and protein biochemistry on oral diagnosis and treatment.

BIO-SCI 5830 Structural Characterization of Dental Biomaterials Credits: 3
A detailed study of the techniques commonly used to determine the composition and structure of dental biomaterials. Surface and near-surface characterization techniques will be emphasized. The student will be expected to complete laboratory projects on the scanning and transmission electron microscopies available in the School of Dentistry.

BIO-SCI 5899 Required Graduate Enrollment Credit: 1

**Biology (BIOLOGY)**

**Courses**

**BIOLOGY 5501 Proposal Writing Credit: 1**
This course addresses how to develop a testable hypothesis, and write a NIH-style proposal to convince the reader of the significance of the proposed studies. Students will write a proposal that will form the basis of their oral comprehensive exam in the Cell Biology and Biophysics (CBB) and Molecular Biology and Biochemistry (MBB) disciplines. The is limited to doctoral students with CBB and MBB coordinating disciplines.

**Prerequisites:** Plan of Study filed with the School of Graduate Studies.

**BIOLOGY 5510 Gross Anatomy for Nurse Anesthetists Credits: 3**
This course will present and examine the anatomic concepts and conditions essential for critical thinking and decision making by the nurse anesthetist. Specifically, the course will provide the foundation upon which patient interventions may be based during the perioperative period.

**Prerequisites:** Graduate status.

**Co-requisites:** BIOLOGY 5510L.

**BIOLOGY 5510L Gross Anatomy for Nurse Anesthetists Credit: 1**
This laboratory course will present and examine the anatomic concepts and conditions essential for critical thinking and decision making by the nurse anesthetist. Specifically, the course will provide the foundation upon which patient intervention may be based during the perioperative period.

**Prerequisites:** Graduate status.

**Co-requisites:** BIOLOGY 5510.

**BIOLOGY 5519 Principles of Evolution Credits: 3**
Synthesis of the modern concepts of evolution. Discussion of the biological processes that produce organic diversity through phyletic change. Discussed are variation, mutation, population genetics, natural selection and adaptation.

**Prerequisites:** BIOLOGY 206.

**BIOLOGY 5525 Bioinformatics and Data Analysis Credits: 3**
Methods and procedures for the storage, retrieval and analysis of information in biomolecular and biological databases. Emphasis will be given to the use of database information in biological research and to recent developments in genomics and proteomics.

**Prerequisites:** LS-BIOC 441, LS-BIOC 360.

**BIOLOGY 5528 Human Genomic Epidemiology Credits: 3**
This course is designed for biological researchers and clinicians interested in studying common human diseases using state-of-the-art genomics/genetics epidemiological approaches. The course provides a basic yet comprehensive introduction to key topics in human genome epidemiological research, including basic concepts and methodologies of quantitative/statistical genetics, an introduction to emerging technologies and analytical methods for genomic science, basic study for various types of genomic research approaches, utilization of widely-used software packages for analyses of genomic data, and examples of human genome epidemiology information improving health, and ethical, legal and social issues in the design and conduct of human genome epidemiology studies.

**BIOLOGY 5534 Cardiovascular Pulmonary Physiology Credits: 3**
Function of the cardiovascular and pulmonary systems at the cellular, tissue, and system levels with particular emphasis on regulation, maintenance of homeostasis and integration with other systems.

**Prerequisites:** LS-PHYS 316 (or equivalent).

**BIOLOGY 5539 Mammalian Physiology Credits: 4**
Study of the physiological functions and controls in human and related mammalian systems, with emphasis on fundamental processes that underlie normal and abnormal clinical conditions.

**Prerequisites:** LS-PHYS 316 (or equivalent).
BIOLOGY 5540 Pathophysiology Credits: 4
Pathophysiology will focus on the physiological basis of cellular and tissue function, and the consequences of dysregulated metabolic/cellular expression on essential homeostatic processes in cells, cytoplasmic compartments and primary organ systems.
Prerequisites: BIOLOGY 5539.

BIOLOGY 5542 Neurobiology Credits: 3
Neurobiology will consist of the presentation of theory and data concerning cellular and molecular fundamentals of the nervous system, synaptic mechanisms, sensor-motor systems, and higher-order functions of the nervous system.
Prerequisites: LS-BIOC 304.

BIOLOGY 5591 Directed Individual Studies Credits: 1-6
Intensive readings and/or research in an area selected by the graduate student in consultation with the instructor. Not to be identified with thesis research.

BIOLOGY 5592 Master of Arts Topics in Biology Credits: 1-6
Special problems and topics in biology specifically intended to satisfy the project or report requirement for the master of arts degree in biology.
Prerequisites: Nine hours of graduate work in Biology.

BIOLOGY 5593 Master of Science Topics Credits: 1-4
Investigation of problems and topics to satisfy the M.S. topics requirement for the master of science degree in Cellular and Molecular Biology.
Prerequisites: LS-MBB 5561, LS-MBB 5562.

BIOLOGY 5899 Required Graduate Enrollment Credit: 1

Black Studies (BLKS)

Courses
BLKS 5502 Conceptual and Theoretical Foundations in African American Studies Credits: 3
This course will provide an in-depth examination of the theoretical and conceptual parameters of African American studies. We will study the evolution of the field, key scholars and creative intellectuals, and seminal categories of thought.

BLKS 5503 Writing for African American Studies Credits: 3
This course instructs students in how to produce advanced knowledge in the field of African American studies. It provides training in the construction of quality research papers for graduate, scholarly, and professional work and exposes students to a wide array of scholarly journals, databases, and authoritative resources in African American studies. Each time the course is taught, students will develop their research around a specific topic defined by the instructor.

BLKS 5504 Research Seminar Credits: 3
This course introduces the logic, theory, and techniques of empirical research and applies them to African American Studies. It exposes students to a variety of research approaches in order to examine their utility for producing knowledge within the field.

BLKS 5510 African American Art History: Part II, 1960-Present Day Credits: 3
This course presents a survey of African American visual arts from 1960 to the present. The Black Arts Movement, the Black Aesthetic, mainstream arts institutions and Black collectors are reviewed. Visual arts include new media and processes for Diaspora artists. Students investigate contemporary artists within African Diaspora visual culture.

BLKS 5520 Critical Health Issues in Black Communities Credits: 3
Beginning with the African context and the imposition of chattel slavery, this course examines social, cultural, and historical factors affecting the health status of African Americans to the present era. It explores a variety of health-related issues including the interplay between environment, biology, and culture; folk and popular health practices; structured inequality and oppression; lifestyle, beliefs, and values; and the organization and delivery of health care. Moreover, this course moves well beyond the idea that medical care - its presence, absence, or quality - is the singular or most critical factor determining the health of a people, community, or society. It reveals the importance of social phenomena in disease resistance and health promotion. Historical shifts from the prominence of infectious to chronic diseases; the implications to health of chattel slavery, sharecropping, segregation, poverty, and structures inequality; the relationship between psychosocial factors and disease, i.e. destabilized social settings that compromise resistance to disease; environmental racism; and the health status of African Americans as it relates to the organization of work, family structure and function, religious beliefs, the organization of medical care, lifestyle, consumer manipulation, and post-industrial society are major issues addressed by the course.

BLKS 5521 The Black Family & Male-Female Relationships Credits: 3
The course examines the historical evolution and current status of the African American family in the United States. Utilizing the African experience as its starting point, the course conveys a broad understanding of the role of the family in human survival and progress. We investigate such issues as male-female relationships, sexual practices, dating, marriage, single parenting, the education issues, including institutionalized inequality, that affects the viability of today's African American family.
BLKS 5525 African American Business Development Credits: 3
This course investigates the various challenges to African American business development and entrepreneurship in the United States. We study the lives of successful, pioneering African American businesswomen and men in order to assess how they managed to transcend the barriers of racism and structured inequality. We explore why certain kinds of enterprises emerged among African Americans and why others did not, and we scrutinize the traditional business problems for African Americans of capitalization, distribution, market penetration, and wealth creation.

BLKS 5530 African American Migrations in Literature Credits: 3
The course examines representations of two different trajectories of migration in African American literature: African American journeys from the south to northern and mid-western regions of America, and concurrent migrations of Caribbean people to the US in the early twentieth century.

BLKS 5534 From Field Shout to Hip Hop: African American Poetic Traditions Credits: 3
This course examines the development of African American poetry from its early forms as field shouts, ballads, and blues to present forms including spoken word and hip hop. Includes authors such as Phillis Wheatley, Paul Lawrence Dunbar, Langston Hughes, Gwendolyn Brooks, Tupac Shakur, and Jessica Care Moore.

Cross Listings: ENGLISH 5546: From Field Shout to Hip Hop: African American Poetic Traditions

BLKS 5535 Stages toward Freedom: African American Dramatic Traditions Credits: 3
This course explores the development of African American dramatic traditions from the eighteenth century through the Harlem Renaissance, Black Arts Movement, to current postmodernism. Includes authors such as W.W. Brown, Zora N. Hurston, Amiri Baraka, Sonia Sanchez, August Wilson, Suzan-Lori Parks.

Cross Listings: ENGLISH 5557: Stages toward Freedom: African American Dramatic Traditions

BLKS 5537 The Civil Rights Movement in African American Literature Credits: 3
This course examines how African American literature shaped ideas about freedom, rights, citizenship and race in the civil rights movement. It draws on a variety of literary forms—speeches, essays, autobiographies, fiction, drama, poetry and film—to explore the movement's impact on communities and cultures as well as its various debates and competing visions.

Cross Listings: ENGLISH 5554: The Civil Rights Movement in African American Literature

BLKS 5538 Women’s Literature in Africa and the African Diaspora Credits: 3
This course is a comparative examination of the variety of literary works produced by women of African descent in the United States, the Caribbean and Africa. Students will explore the cross-cultural implications of texts in light of the intersections of gender, race and class.

Cross Listings: ENGLISH 5538

BLKS 5539 Slave Narratives: Race, Gender and Writing Freedom Credits: 3
A truly American, home grown genre and powerful force in the development of American political and social realities, the African American Slave Narrative is an established, recognized influence in the development of African American and American literary history. In this course you will have the opportunity to explore the historical trajectory of the Slave Narrative, looking at early formulations of its structure, purpose and conventions—especially in terms of gender and race, subsequent various permutations, and the eventual development of the Neo-slave Narrative as its resurrection, which adds to the complexity and theoretical impact of the literary autobiography from black perspectives.

BLKS 5549 Symbols and Codes from the Diaspora: African American Visual Arts Survey Credits: 3
This course provides an examination of the theoretical and conceptual parameters of African and African American visual aesthetics. Through the writings of key scholars in African American aesthetics, students will study symbolic forms and patterns from various African cultures throughout the Diaspora and investigate formal image categories within African Diaspora visual culture.

BLKS 5551 African American Art History: Part I, 1600-1960 Credits: 3
This course presents a comprehensive survey of African American visual art from 1600 through 1960. Critical issues in early American art history highlight the expressions of African American artists and scholars. The Negro Crafts Movement, New Negro Movement and Harlem Renaissance. Students will investigate artistic expressions of this period.

BLKS 5580 Special Topics/Seminar Credits: 1-3
In-depth exploration of special topics in Black Studies.

BLKS 5590 Directed Study/Research Credits: 1-6
Individual research and learning projects supervised by a faculty member.

BLKS 5596 Internship in Black Studies Credits: 1-6
This Internship course presents an opportunity for graduate students to integrate their academic studies in the discipline of Black Studies with community service and engagement. As a student intern within a business or professional organization in the urban Metropolitan community, the student gains critical information about the processes and procedures of this business entity in relation to African American community members.

BLKS 5599 Research Thesis Credits: 1-6
Individually directed research leading to preparation and completion of a thesis.

BLKS 5699 Research and Dissertation Credits: 1-12
Individually directed research leading to preparation and completion of a doctoral dissertation.
BLKS 5899 Required Graduate Enrollment Credit: 1
Enrollment required during the completion of a thesis/dissertation.

**Cello (CELLO)**

**Courses**

CELLO 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

CELLO 5500A Graduate Cello - Secondary Credits: 2

CELLO 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

CELLO 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

CELLO 5501 Graduate Cello - Masters Performance Credits: 4
CELLO 5601 Graduate Cello - Doctoral Performance Credits: 4

**Chemistry (CHEM)**

**Courses**

CHEM 5511 Laboratory Safety And Health I Credit: 1
An introduction to laboratory safety and health. Topics to be discussed include good laboratory practice; laboratory hazards; safe chemical handling; storage and disposal; first aid; protective equipment; and federal regulations.

CHEM 5520R Survey Of Organic Chemistry Credits: 3
An intensive advanced survey of the structure, synthesis and reactions of organic compounds.

CHEM 5521R Mechanisms Of Organic Reactions Credits: 3
A comprehensive course in which the mechanisms of organic reactions are discussed in light of modern chemical principles. **Prerequisites:** CHEM 322R and CHEM 432.

CHEM 5522 Synthetic Organic Chemistry Credits: 3
A critical approach to the synthesis and modification of organic molecules; newer methods will be emphasized. **Prerequisites:** CHEM 322R and CHEM 432.

CHEM 5529 Selected Topics In Organic Chemistry Credits: 3
Selected topics from the chemistry and theories of organic structures with particular attention to recent developments.

CHEM 5530 Systematic Physical Chemistry Credits: 3
An intensive and comprehensive review of the principles of physical chemistry. This course may either emphasize thermodynamics with an introduction to principles of quantum mechanics or emphasize quantum mechanical description of atoms and molecules, molecular spectroscopy, statistical mechanics and kinetics.

CHEM 5530A Physical Chemistry I Credits: 3
This graduate course reviews principles of physical chemistry, focusing on thermodynamics, equilibria and electrochemistry.

CHEM 5530B Physical Chemistry II Credits: 3
This graduate course reviews principles of physical chemistry, focusing on quantum chemistry, molecular spectroscopy and structure, and kinetics.

CHEM 5531 Classical Thermodynamics Credits: 3
A rigorous treatment of the laws of thermodynamics and their application to ideal and non-ideal equilibrium systems.

CHEM 5532 Chemical Kinetics Credits: 3
Empirical analysis of chemical reaction rates. Theories of unimolecular and bimolecular reactions, reactions in solution and complex reactions. Review of modern and classical techniques used to study chemical kinetics.

CHEM 5533 Quantum Chemistry Credits: 3
Application of quantum mechanical methods to the study of systems of chemical interest. Exact solutions and approximate methods will be discussed.

CHEM 5534 Molecular Spectroscopy Credits: 3
A theoretical introduction to molecular spectroscopy and its relation to structure. Electronic, vibrational and rotational spectra of chemical systems will be discussed.
CHEM 5535 Statistical Thermodynamics Credits: 3
A rigorous treatment of the fundamental concepts of statistical thermodynamics, with applications to specific systems that reflect the interests of students participating in the course.

CHEM 5539 Selected Topics In Physical Chemistry Credits: 3
Selected topics and recent developments in physical chemistry.
Prerequisites: CHEM 5530.

CHEM 5541R Advanced Analytical Chemistry Credits: 3
An intensive review of modern concepts of analytical chemistry.
Prerequisites: CHEM 432.

CHEM 5551R Advanced Inorganic Chemistry I Credits: 3
A systematic treatment of bonding, structure, reactions and reaction mechanisms of inorganic compounds, with emphasis on classical transition metal compounds and organometallic compounds.
Prerequisites: CHEM 451R or equivalent.

CHEM 5559 Selected Topics In Inorganic Chemistry Credits: 3
Various special topics in the inorganic area to be offered in different semesters.
Prerequisites: CHEM 5551R.

CHEM 5567 Advanced Bioorganic Chemistry Credits: 3
This course examines the organic chemistry and laboratory synthesis of the major biopolymers and organic chemistry related to biological systems. Emphasis is on literature and library research and natural product and solid phase organic synthesis, combinatorial synthesis, bioconjugates and applied bioorganic chemistry.

CHEM 5571R Introduction To Polymer Chemistry Credits: 3
Survey of organic and inorganic monomers and polymers; the occurrence, synthesis, structures and properties of natural and synthetic polymers; discussion of general properties of plastics, elastomers, fibers, resins and plasticizers.
Prerequisites: CHEM 432.

CHEM 5580R Computer Applications To Chemical Problems Credits: 3
The purpose of this course is to survey the field of computational chemistry, concentrating on methods, programs and general utility to the research chemist. The student will learn the principles of the theory underlying the methods and will use selected software to carry out chemical calculations.
Prerequisites: CHEM 320/320L or CHEM 322R/322L with "C-" or better.

CHEM 5587 Environmental Chemistry I Credits: 3
A survey of how chemical principles can be applied to the environment. Included will be topics in aquatic chemistry, atmospheric chemistry and chemistry of the geosphere and soil.

CHEM 5588 Environmental Chemistry II Credits: 3
Discussion of selected topics in advanced environmental chemistry, such as environmental toxicology, environmental risk, the chemistry of hazardous wastes and their treatment, and environmental analytical chemistry.

CHEM 5590 Directed Studies Credits: 1-3
Intensive readings and/or research in an area selected by the graduate student in consultation with the instructor.

CHEM 5598 Research Methodology Conference Credits: 3
Student will meet on an individual basis with two faculty members who are involved in research. The student's adviser will coordinate this course.

CHEM 5599 Research And Thesis Credits: 1-9
Research for thesis.

CHEM 5611 Chemistry Seminar Credit: 1
Presentation and discussion of topics currently appearing in United States and foreign literature.

CHEM 5699 Research And Dissertation Credits: 1-16
Research for dissertation.

CHEM 5899 Required Graduate Enrollment Credit: 1

Civil Engineering (CIV-ENGR)

Courses
CIV-ENGR 5500 Problems Credits: 1-6
Supervised investigation in civil engineering to be presented in the form of a report.
Prerequisites: Graduate standing.
CIV-ENGR 5501 Advanced Topics in Civil Engineering Credits: 1-3
Current technical developments in civil engineering.

CIV-ENGR 5501AE Advanced Topics in Civil Engineering Credits: 1-3

CIV-ENGR 5501AS Advanced Topics In Civil Engineering Credits: 1-3

CIV-ENGR 5501CP Advanced Topics in Civil Engineering Credits: 1-3
Advanced Topics in Civil Engineering

CIV-ENGR 5501DM Advanced Topics in Civil Engineering - Capital Project Delivery Methods Credits: 1-3
Provide a body of knowledge that acquaints students with the capital project delivery methods in both public and private business sectors of the U.S design – construction industry. Project delivery means how a capital project comprising both design and construction is planned, procured, contracted and implemented by an owner to achieve desired objectives. Delivery methods include traditional design – bid- build, design – build, design-build plus added services such as operations and maintenance, CM @ Risk and other approaches. Roles and responsibilities of owners, owner consultants, and design and construction firms are presented and discussed. Owner procurement approaches, project risk allocation, and how design and construction firms compete for projects will be examined. Students will contribute to and evaluate owner procurement documents such as requests for qualifications (RFQ) and requests for proposal (RFP).

CIV-ENGR 5501DS Advanced Topics in Civil Engineering Credits: 1-3

CIV-ENGR 5501ES Advanced Topics in Civil Engineering Credits: 1-3
Advanced Topics in Civil Engineering.

Prerequisites: CIV-ENGR 335.

CIV-ENGR 5501FM Advanced Topics in Civil Engineering Credits: 1-3
Advanced Topics in Civil Engineering

CIV-ENGR 5501G Advanced Topics In Civil Engineering Credits: 1-3

CIV-ENGR 5501GB Advanced Topics in Civil Engineering Credits: 1-3

CIV-ENGR 5501GS Advanced Topics in Civil Engineering Credits: 1-3

CIV-ENGR 5501HA Advanced Topics in Civil Engineering Credits: 3
Practical implementation of hydrologic and hydraulic system design in accordance with published design criteria and using methods and numerical modeling accepted by local, state, and national government agencies.

Prerequisites: CIV-ENGR 357.

CIV-ENGR 5501IR Adv Topics in Civil Engineering Credits: 1-3
Adv Topics in Civil Engineering

CIV-ENGR 5501J Advanced Topics In Civil Engineering Credits: 1-3
This class introduces students to the financial concepts faced by engineers in the businesses in which they work and for the projects to which they are assigned. Throughout the course students are reminded of the impact of two key variables – money and time – on their work. While not attempting to turn good engineers into mediocre accountants, the course includes a strong emphasis on managerial accounting. Students will learn how to read and apply financial statements and how to use these same financial concepts in developing pro formas to evaluate and support major capital investments. The effect of time on the value of money, appropriate discount factors, and the internal rate of return will be explored in the class. Students will learn to combine these financial factors with electronic spreadsheets to evaluate business opportunities and practices. All students will be required to develop a comprehensive financial model to evaluate/justify a real world capital project.

CIV-ENGR 5501L Advanced Topics In Civil Engineering Credits: 1-3

CIV-ENGR 5501M Advanced Topics in Civil Engineering Credits: 1-3
Advanced Topics in Civil Engineering

CIV-ENGR 5501MD Advanced Topics in Civil Engineering Credits: 1-3
Advanced Topics in Civil Engineering

CIV-ENGR 5501MM Advanced Topics in Civil Engineering Credits: 1-3
Advanced Topics in Civil Engineering

CIV-ENGR 5501MX Advanced Topics in Civil Engineering Credits: 1-3
Advanced Topics in Civil Engineering

CIV-ENGR 5501PM Advanced Project Management of Integrated Design and Construction Credits: 3
Provide a body of knowledge that includes the principles, knowledge areas, skills, and tools applicable to successful project management for the performance of integrated design and construction of capital projects, specifically as applicable to the post-award period. This post-award period is the time from the formal Project award by the owner through Project design and construction, testing, commissioning, close-out and completion of the Project warranties.
CIV-ENGR 5501S Advanced Topics In Civil Engineering Credits: 1-3
CIV-ENGR 5501SD Advanced Topics in Civil Engineering Credits: 3
Study of soil behavior under cyclic and dynamic loading conditions. Foundation design for vibratory loadings. Introductory earthquake engineering including dynamic ground response for determination of dynamic soil properties. Evaluation of soil liquefaction potential during earthquakes by both laboratory and in situ field methods. Design consideration for embankments and earth retaining structures under seismic loading conditions. Construction blasting and vibration effects on underground systems.

**Prerequisites:** CIV-ENGR 335.

CIV-ENGR 5501SP Advanced Topics In Civil Engineering Credits: 1-3
CIV-ENGR 5501SW Advanced Topics in Civil Engineering Credits: 1-3

CIV-ENGR 5504 Project Management of Integrated Design and Construction Credits: 3
Provide a body of knowledge that includes the principles, knowledge areas, skills, and tools applicable to successful project management for the performance of integrated design and construction of capital projects, specifically as applicable to the post-award period. This post-award period is the time from the formal Project award by the owner through Project design and construction, testing, commissioning, close-out and completion of the Project warranties.

CIV-ENGR 5505 Capital Project Delivery Methods Credits: 3
Provide a body of knowledge that acquaints students with the capital project delivery methods in both public and private business sectors of the U.S design – construction industry. Project delivery means how a capital project comprising both design and construction is planned, procured, contracted and implemented by an owner to achieve desired objectives. Delivery methods include traditional design – bid- build, design – build, design-build plus added services such as operations and maintenance, CM @ Risk and other approaches. Roles and responsibilities of owners, owner consultants, and design and construction firms are presented and discussed. Owner procurement approaches, project risk.

CIV-ENGR 5515 Engineering Leadership & Ethics Credits: 3
Analysis of leadership, including 360-degree assessment of students’ leadership. Discussion of leadership cases and application to engineering careers. Frequent analysis of engineering ethics cases using the NSPE Code.

**Prerequisites:** Graduate status.

**Cross Listings:** CIV-ENGR 415.

CIV-ENGR 5521 Matrix Methods of Structural Analysis Credits: 3
An introduction to the fundamentals of stiffness and flexibility methods for analysis of truss and frame structures. Application of the computer programs to three dimensional structures.

**Prerequisites:** CIV-ENGR 321.

**Cross Listings:** CIV-ENGR 421.

CIV-ENGR 5523 Advanced Structural Steel Design Credits: 3
Design of steel building structures. Topics include composite deck and beam design, stability design, plastic design, plate girder design, simple and eccentric shear connections, and partial and fully restrained moment resistant connections.

**Prerequisites:** CIV-ENGR 323.

CIV-ENGR 5526 Prestressed Concrete Credits: 3
Design and behavior of prestressed concrete structures; material and system or pretensioned and post tensioned systems; prestress losses; flexure, shear, bond, deflections and partial prestress in determinate structures; indeterminate beams-introduction.

**Prerequisites:** CIV-ENGR 422WI.

CIV-ENGR 5527 Advanced Reinforced Concrete Design Credits: 3
Advanced Topics in the design of footings, retaining walls two way floor slabs, torsion and continuous structures, shear friction, strut and tie design, precast design.

**Prerequisites:** CIV-ENGR 422WI.

**Cross Listings:** CIV-ENGR 427.

CIV-ENGR 5529 Advanced Design of Structures for Blast and Fire Credits: 3
General overview of Blast Design; risk assessment and design criteria; simplified Blast Effects Analysis; ground shock, material response; antiterrorism design considerations; weapons effects and mitigation; internal explosions; progressive collapse analysis; and introduction to Fire Design.
CIV-ENGR 5531 Fund of Geomaterial Characterization Credits: 3
A geomaterial is any construction material comprised primarily of soil. This course overviews state-of-the-art instrumental techniques for analysis of the physio-chemical properties of soils, aggregates, hydraulic concrete, and asphaltic concrete. Evaluation techniques will be applied to determining beneficial reuse opportunities for industrial by-product materials from the Kansas City region. Prerequisites are CE 335 Soil Mechanics and CE378 Civil Engineering Materials, or equivalent. 3 credit hours.
Prerequisites: CIV-ENGR 335, CIV-ENGR 378WI.

CIV-ENGR 5532 Foundation Engineering Credits: 3
Design of basic foundation structures, footings, retaining walls, pile foundations, dams.
Prerequisites: CIV-ENGR 335.
Cross Listings: CIV-ENGR 432.

CIV-ENGR 5536 Advanced Soil Mechanics Credits: 3
Theoretical soil mechanics as applied to solution of specific engineering problems.
Prerequisites: CIV-ENGR 335.
Cross Listings: CIV-ENGR 436.

CIV-ENGR 5542 Hydraulic Structures Credits: 3
A review of the history and hydraulic design procedures for a variety of hydraulic structures including spillways, water measurement structures, canal structures and energy dissipation structures.
Prerequisites: CIV-ENGR 452 (or CIV-ENGR 5552).

CIV-ENGR 5544 Unit Processes in Environmental Engineering Credits: 3
Typical chemical and physical relationships are applied to unit processes of water and wastewater. Troubleshooting for operation problems is emphasized.
Prerequisites: CIV-ENGR 342.

CIV-ENGR 5545 Environmental Engineering Microbiology Credits: 3
Theory and application of fundamental principles of microbiology, toxicology, ecology, and aquatic biology of the microorganisms of importance to environmental engineers.
Prerequisites: CE342.

CIV-ENGR 5546 Limnology Credits: 3
A survey of the physical, biological, and chemical issues important in surface fresh waters. Includes carbonate chemistry, algal assay and Thermocline analysis.
Prerequisites: CHEM 211, MATH 345.

CIV-ENGR 5547 Contracts and Law for Engineers Credits: 3
This course covers a broad range of substantive legal topics giving the student a grounding in the legal implications of certain situations that they may encounter during their careers. The course includes coverage of basic contract law, environmental regulations and compliance, construction law, antitrust law, intellectual property law, civil procedure, employment law, business entities (corporate law) product liability and criminal law and procedure. The objective of the course is to provide students with a fundamental understanding of the wide range of federal and state laws governing behavior in our complicated and rule of law driven society.

CIV-ENGR 5549 Environmental Compliance, Auditing, & Permitting Credits: 3
This course provides a high level overview of the most important statutes that have been enacted to protect the environment. The course covers regulation of hazardous waste, the Clean Air and Clean Water Acts, the Resource Conservation and Recovery Act, the All Appropriate Inquiry Rule and the law addressing sites contaminated with hazardous substances and the technology options employed to remediate those sites. In addition, the course provides coverage of environmental audits and emergency planning for extremely hazardous substances, the regulation of underground storage tanks, safe drinking water and the National Environmental Policy Act among other statutes.
Prerequisites: ANCHOR 201/CIV-ENGR 211, MEC-ENGR 285.
Cross Listings: CIV-ENGR 449.

CIV-ENGR 5552 Hydraulics of Open Channels Credits: 3
This is a first course in the fundamentals of open channel (free surface) water flow. Over ninety-nine percent of all the water that is moved on the planet’s surface is by free surface flow. Study of free surface flow is essential to the study of storm water drainage systems, flood control, water and wastewater treatment and the study of the form and processes of river evolution. This class provides the fundamental physical principles of free surface flow as a prelude to a significant number of other topics that pertain to engineering and geomorphic analysis.
Prerequisites: CIV-ENGR 351.
CIV-ENGR 5533 Hydraulics and Variability of Rivers Credits: 3
This course introduced concepts of alluvial channel behavior, evolution and change due to natural and man-induced modifications to streams and watersheds. Numerous case studies of river behavior are studied from the perspective of hydraulics, geomorphology and sediment transport.

Prerequisites: CIV-ENGR 357.

CIV-ENGR 5554 River Stability and Scour Credits: 3
Bridge hydraulics, stream stability, scour at bridge piers and abutments, hydraulic modeling of floods, countermeasures for protection of bridge infrastructure.

Prerequisites: CIV-ENGR 452 (or CIV-ENGR 5552).

Cross Listings: CIV-ENGR 454.

CIV-ENGR 5556 Urban Hydrology Credits: 3
Analysis of urban drainage systems in accordance with published municipal criteria. This course is an in-depth, follow on course for senior undergraduate students interested in the hydrological sciences and for graduate students specializing in water resources. Specifically this course will focus on the engineering procedures and techniques specified by municipalities to design and maintain efficient, safe, storm drainage systems. This course also focuses on the unique issues associated with estimating and designing for rainfall/runoff in urban metropolitan areas, including channel and reservoir routing of floods through stream channels, retention structures, culverts, and storm sewers.

Prerequisites: CIV-ENGR 357.

CIV-ENGR 5563 Construction Law Credits: 3
This course introduces professional, ethical, and legal concepts of the professional practice of engineering, and the role of the consulting engineer, specifically in the A/E/C industry during the design, procurement, and construction processes. A conceptual framework is developed for understanding the industry standard agreements (AIA, EJCDC, ConCensus) and the various participants roles and duties in project execution. The engineer’s “professional standard of care” is examined and revisited throughout the semester, specifically what it means to be a “Professional Engineer”. Emphasis is placed on project and contract management and the applicable law. Skills are developed in finding online resources of law, legal, and practice advice relevant to the practice of engineering and the construction industry

CIV-ENGR 5565 Project Finance Credits: 3
This class introduces students to the financial concepts faced by engineers in the businesses in which they work and for the projects to which they are assigned. Throughout the course students are reminded of the impact of two key variables – money and time – on their work. While not attempting to turn good engineers into mediocre accountants, the course includes a strong emphasis on managerial accounting. Students will learn how to read and apply financial statements and how to use these same financial concepts in developing pro formas to evaluate and support major capital investments. The effect of time on the value of money, appropriate discount factors, and the internal rate of return will be explored in the class. Students will learn to combine these financial factors with electronic spreadsheets to evaluate business opportunities and practices. All students will be required to develop a comprehensive financial model to evaluate/justify a real world capital project.

CIV-ENGR 5566 Green Building and Sustainable Infrastructure Credits: 3
This course provides a broad overview of what sustainability means to construction and our built environment. Specific green infrastructure rating systems of LEED and Envision will be discussed in detail to quantify the “greenness” of construction of buildings residential subdivisions, highways, roads, and airports. Upon completion of this course students will have a substantial background and understand the aspects needed for the LEED Green Associates and Envision ISI exams. Two major additional aspects of green building important to sustainable infrastructure include stormwater management using “green” techniques and methods to mitigate the urban heat island. The course will also discuss infrastructure project sustainability from a life cycle cost perspective and determining the life cycle inventory of various materials. Upon completion of the course, students will better understand what sustainability means and how it applies in the context of our built environment and have a good idea of how technology will impact our sustainable future.

Cross Listings: CIV-ENGR 466.

CIV-ENGR 5567 Introduction to Construction Management Credits: 3
This course will introduce the students to basic construction management related topics including structure of the construction industry, construction drawings and specifications, estimating and bidding, construction contracts, bonds and insurance, planning and scheduling of construction operations, project management, computer techniques.

Prerequisites: MEC-ENGR 272 (or MATH 345).

CIV-ENGR 5568 Construction Planning and Scheduling Credits: 3
This course is intended to provide an in-depth examination of the construction planning and scheduling process, as it relates to civil engineering projects. Topics will include planning and scheduling of construction operations by the critical path method, Network diagramming, scheduling computations, and time-cost trade-offs. Manpower and equipment leveling. Computer and noncomputer techniques.

Prerequisites: CIV-ENGR 467.

CIV-ENGR 5569 Construction Methods and Equipment Credits: 3
Introduction to methods used to plan, construct and manage heavy civil projects. Topics will include development, project control, equipment productivity, earthmoving fundamentals, formwork design, and other issues in heavy civil projects.

Prerequisites: CIV-ENGR 467.
CIV-ENGR 5570 Corrosion Engineering Credits: 3
This course will cover the physical interaction of metallic materials with their environments, called corrosion. Corrosion is an electrochemical process and the thermodynamics and kinetics of corrosion processes will be discussed. Students will be expected to identify different forms of corrosion and be able to select appropriate materials for their working environment to prevent corrosion related problems. Second half of the class will concentrate on corrosion of metals in concrete and prevention methods.
Prerequisites: CHEM 211, CHEM 211L, CIV-ENGR 378WI.

CIV-ENGR 5571 Advanced Portland Cement Concrete Credits: 3
This course will cover topics such as cement chemistry, concrete proportioning, aggregates, mineral and chemical admixtures, fresh and hardened properties of concrete, and durability of concrete. Design and proportioning of concrete mixtures for desired fresh and hardened properties will be emphasized. Specialty concrete types such as high strength/high performance concrete, lightweight concrete, pervious concrete, high volume fly ash concrete, and fiber reinforced concrete will also be covered.
Prerequisites: CHEM 211, CHEM 211L, CIV-ENGR 378WI.

CIV-ENGR 5573 Durability of Civil Engineering Materials Credits: 3
This course will explore the identification, causes of, and remediation of material-related durability deterioration in civil engineering projects. The primary focus will be on reinforced concrete, plain concrete, and soil for a variety of applications. Course content will be delivered primarily through laboratory activities and handouts. Lab activities will use advanced analysis techniques and help the students identify and measure deterioration mechanisms. Various non-destructive evaluation techniques will be discussed. Students have hands on experiences with samples production, data collection, and data analysis for all of the lab activities.
Prerequisites: CIV-ENGR 335, CIV-ENGR 378WI.

Cross Listings: CIV-ENGR 473.

CIV-ENGR 5575 Seismic Design of Structures Credits: 3
Introduction to basic analysis and design principles for the seismic design of buildings (concrete, steel, wood). General seismic principles, codes and loads, static lateral force procedure, dynamic lateral force procedure, topics in rigidities of buildings.
Prerequisites: CIV-ENGR 323 (or CIV-ENGR 422WI), MEC-ENGR 285.

CIV-ENGR 5582 Advanced Traffic Engineering Credits: 3
This course covers the review of traffic flow characteristics, the field survey practices and studies, traffic signal designs, freeway operation, and the introduction to Intelligent Traffic Systems (ITS).
Prerequisites: CIV-ENGR 319, CIV-ENGR 481.

CIV-ENGR 5584 Pavement Materials, Design, Maintenance, and Rehabilitation Credits: 3
This course will explore the identification, causes of, and remediation of material-related durability deterioration in civil engineering projects. The primary focus will be on reinforced concrete, plain concrete, and soil for a variety of applications. Course content will be delivered primarily through laboratory activities and handouts. Lab activities will use advanced analysis techniques and help the students identify and measure deterioration mechanisms. Various non-destructive evaluation techniques will be discussed. Students have hands on experiences with samples production, data collection, and data analysis for all of the lab activities.
Prerequisites: CIV-ENGR 378WI.

CIV-ENGR 5585 Principles of Railroad Engineering Credits: 3
The engineering analysis and design of railroad systems including the study of the dynamics of track/trains; wheel/rail interaction related to acceleration and braking; horizontal and vertical geometric design of railroads and rail-bed design, rail structures; freight and passenger operations; and, rail-highway interaction and safety.
Prerequisites: CIV-ENGR 481.

CIV-ENGR 5599 Thesis Research Credits: 1-6
Independent investigation in the field of civil engineering to be presented in the form of a thesis.

CIV-ENGR 5601AE Advanced Topics In Civil Engineering Credits: 1-3
CIV-ENGR 5601AS Doctoral Topics Civil Engineering Credits: 1-3
CIV-ENGR 5601B Advanced Topics In Civil Engineering Credits: 1-3
CIV-ENGR 5601CH Advanced Topics In Civil Engineering Credits: 1-3
CIV-ENGR 5601FM Doctoral Topics in Civil Engineering Credits: 1-3
Current technical developments in civil engineering.
CIV-ENGR 5601G Advanced Topics In Civil Engineering Credits: 1-3
CIV-ENGR 5601RE Advanced Topics In Civil Engineering Credits: 1-3
Advanced Topics In Civil Engineering
CIV-ENGR 5601SD Advanced Topics In Civil Engineering Credits: 1-3
CIV-ENGR 5601X Advanced Topics In Civil Engineering Credits: 1-3
Faculty supervised readings course.

**Prerequisites:** Graduate standing.

CIV-ENGR 5607 Numerical Methods in Engineering Credits: 3
Classification and numerical solution of engineering problems—ordinary and partial differential equations, algebraic equations. Includes initial, boundary, eigen- and characteristic-value problems.

**Prerequisites:** MATH 345.

CIV-ENGR 5622 Theory of Elasticity Credits: 3

**Cross Listings:** MEC-ENGR 5622.

CIV-ENGR 5623 Theory of Plates and Shells Credits: 3
Bending of plates with various loading and boundary conditions. Deformations, stresses in thin shells.

**Prerequisites:** CIV-ENGR 5622.

**Cross Listings:** MEC-ENGR 5623.

CIV-ENGR 5624 Theory of Elastic Stability Credits: 3
Buckling of columns, beams, rings, curved bars, thin plates, shells.

**Prerequisites:** CIV-ENGR 5622.

**Cross Listings:** MEC-ENGR 5624.

CIV-ENGR 5625 Advanced Prestressed Concrete Credits: 3
Design and behavior of prestressed concrete structures; material and system of pretensioned and post tensioned systems; prestress losses; flexure, shear, bond, deflections and partial prestress in determinate structures; indeterminate beams-introduction.

**Prerequisites:** CIV-ENGR 422WI.

CIV-ENGR 5629 Adv. Design of Structures for Blast and Fire Credits: 3
General overview of Blast Design; risk assessment and design criteria; simplified Blast Effects Analysis; ground shock, material response; antiterrorism design considerations; weapons effects and mitigation; internal explosions; progressive collapse analysis; and introduction to Fire Design.

CIV-ENGR 5645 Water Quality Modeling Credits: 3
Derivation and application of models for describing oxygen budget, nutrient exchange, and biological productivity in streams, lakes and estuaries.

**Prerequisites:** CIV-ENGR 342.

CIV-ENGR 5646 Physiochemical Treatment Processes Credits: 3
Fundamental principles, analysis and modeling of physical and chemical processes for water and wastewater treatment.

**Prerequisites:** CIV-ENGR 342.

CIV-ENGR 5647 Biochemical Treatment Processes Credits: 3
Biochemical principles, kinetic models and energy considerations in the design of biological wastewater treatment processes.

**Prerequisites:** CIV-ENGR 342.

CIV-ENGR 5648 Environmental Engineering Practicum Credits: 3
Numerical water quality modeling of actual site data for wasteload allocation.

**Prerequisites:** CIV-ENGR 5645.

CIV-ENGR 5649 Design of Water and Wastewater Treatment Facilities Credits: 3
Development of design criteria and their application to the design of water and wastewater treatment facilities.

**Prerequisites:** CIV-ENGR 5646 or CIV-ENGR 5647.

CIV-ENGR 5651 Fundamentals of Fluid Mechanics Credits: 3
Fundamentals of fluid motion, lecture and laboratory. Instrumentation, technique and analysis for experimental studies in fluid mechanics.

CIV-ENGR 5655 Sediment Transport Credits: 3

**Prerequisites:** CIV-ENGR 452 (or CIV-ENGR 5552).
CIV-ENGR 5656 Advanced Hydraulic Engineering Credits: 3
Rapidly varied flow and design of transition structures. Hydraulic design of spillways, reservoirs and related structures.

CIV-ENGR 5675 Advanced Seismic Design of Structures Credits: 3
Introduction to basic analysis and design principles for the seismic design of buildings (concrete, steel, wood). General seismic principles, codes and loads, static lateral force procedure, dynamic lateral force procedure, topics in rigidities of buildings.  
Prerequisites: CIV-ENGR 323 (or CIV-ENGR 422WI), MEC-ENGR 285.

CIV-ENGR 5679 Dynamics of Structures Credits: 3
Study of the dynamic behavior of structures. Analysis of equivalent lumped parameter systems for the design of structures in a dynamic environment.  
Prerequisites: CIV-ENGR 276 (or CIV-ENGR 421), MEC-ENGR 484 (or MATH 345, MEC-ENGR 285).

Cross Listings: MEC-ENGR 5679.

CIV-ENGR 5681 Traffic Flow Theory Credits: 3
This course covers the review of macroscopic and microscopic traffic flow characteristics, the traffic flow models, and the traffic simulation applications.  
Prerequisites: CIV-ENGR 319, CIV-ENGR 481.

CIV-ENGR 5682 Transportation Network Modeling Credits: 3
This course is about modeling, solving, and understanding network flow problems, especially in the transportation discipline. This course covers equilibrium traffic assignment, network design, fleet assignment, fleet routing, and crew scheduling.  
Prerequisites: CIV-ENGR 319, CIV-ENGR 481.

CIV-ENGR 5699 Research and Dissertation Credits: 1-9
Doctoral dissertation research.

Clarinet (CLARINET)

Courses
CLARINET 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.  
Cross Listings: CLARINET 300.

CLARINET 5500A Graduate Clarinet-Secondary Credits: 2
One-hour lesson weekly. This courses is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

CLARINET 5500B Special Applied Studies Credits: 2
One-half hour lesson weekly. This courses is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

CLARINET 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

CLARINET 5500JC Applied Jazz Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied jazz study in an area other than, and in addition to, their primary performance study.
Prerequisites: Graduate status.

CLARINET 5501 Graduate Clarinet - Masters Performance Credits: 4
CLARINET 5601 Graduate Clarinet - Doctoral Performance Credits: 4

Communication Studies (COMM-ST)

Courses
COMM-ST 5554 Graduate Seminar: Screenwriting Credits: 3
Students will complete their feature screenplay, focusing on acts two and three and then ready the script for submission to contests and industry contacts. We will focus on in-depth scene work, polishing dialogue and deepening theme.  
Prerequisites: COMM-ST 454 or ENGLISH 429B.

COMM-ST 5597 Directed Graduate Studies: Readings Credits: 1-6
Special Projects on the graduate level.

COMM-ST 5598 Directed Graduate Studies: Non-Thesis Research Credits: 1-6
Special projects on the graduate level.
Computer Science & Electrical Engineering (CSEE)

Courses

CSEE 5110 Network Architecture I Credits: 3
This course provides an introduction to fundamental concepts and principles in the design and implementation of computer communication networks, their protocols, and architectures. Topics to be covered include: layering, addressing, naming, routing, internetworking, Internet protocols, reliable transfer, congestion control, link control, multiple media access, and network measurement and management.
Prerequisites: COMP-SCI 421A, COMP-SCI 431.

CSEE 5111 Network Architecture II Credits: 3
In this course, advanced principles, protocols, and architectures of computer networks will be studied with specific emphasis on emerging technologies. The focus will be on the latest networking protocol designs with particular attention to the TCP/IP and application layers.
Prerequisites: CSEE 5110.

CSEE 5112 Computer Network Design and Analysis Credits: 3
This course provides an introduction to analytic and simulation modeling of computer networks and network topological design. Topics covered include the analysis of delay and loss systems, topological optimization, network dimensioning, and routing coupled with analysis techniques for network planning and design.
Prerequisites: COMP-SCI 394R, COMP-SCI 421A.

CSEE 5113 Network Routing Credits: 3
Algorithms, protocols and analysis for network routing. Routing in different networks such as circuit-switched networks, Internet, broadband networks, and transmission networks are covered.
Prerequisites: CSEE 5110, CSEE 5112.

CSEE 5130 Queuing Theory and Applications Credits: 3
This course introduces the queuing models and theory to analyze performance of computing and engineering systems in terms of delay, blocking, and buffer utilization. Both continuous and discrete time models are covered, including variations of M/M/1, M/G/1 and GI/M1 systems using quasi birth-and-death models and matrix analytic techniques. It also covers networks that can be analyzed with product form techniques. Probabilistic reasoning and intuitive understanding is stressed.
Prerequisites: COMP-SCI 394R and MATH 300.

CSEE 5590 Special Topics Credits: 1-3
This course is intended to allow faculty and visiting scholars to offer special courses in selected topics.

CSEE 5690 Advanced Special Topics Credits: 1-3
A lecture course presenting advanced research level topics. This course is intended to allow faculty and visiting scholars to offer special courses in selected research areas.

CSEE 5697 Directed Readings Credits: 1-3
Readings in an area selected by the doctoral student in consultation with a doctoral faculty member. Arrangements must be made prior to registration.

CSEE 5699 Research and Dissertation Research in Telecommunications and Computer Networking Credits: 1-12
Doctoral Research in Telecommunications and Computer Networking.

CSEE 5899 Required Graduate Enrollment Credit: 1
Required Graduate Enrollment.

Computer Science (COMP-SCI)

Courses

COMP-SCI 5101 Discrete Structures Review for Graduate Students Credits: 1-3
A review of mathematical logic, sets, relations, functions, mathematical induction, and algebraic structures with emphasis on computing applications. Recurrence relations and their use in the analysis of algorithms. Graphs, trees, and network flow models. Introduction to finite state machines, grammars, and automata. Students must have completed College Algebra before taking this course.

COMP-SCI 5102 Operating Systems Review for Graduate Students Credits: 1-3
This course covers concurrency and control of asynchronous processes, deadlocks, memory management, processor and disk scheduling, parallel processing, and file system organization in operating systems.
Prerequisites: Data Structures, Computer Architecture.
COMP-SCI 5103 Advanced Data Structures and Analysis of Algorithms Review for Graduate Students Credits: 1-3
A review of linear and hierarchical data structures, including stacks, queues, lists, trees, priority queues, advanced tree structures, hashing tables, dictionaries and disjoint-sets. Asymptotic analysis techniques and algorithms: from design strategy (such as greedy, divide-and-conquer, and dynamic programming) to problem areas (such as searching, sorting, shortest path, spanning trees, transitive closures, graph algorithms, and string algorithms) arriving at classical algorithms with efficient implementation. Introduction to the basic concepts of complexity theory and NP-complete theory. Students must have taken courses in Linear Algebra, Discrete Structures, Data Structures, and Applied Probability before taking this course.

COMP-SCI 5510 Information Theory Credits: 3
Representation, transmission and transformation of information, information compression and protection, generation, storage, processing and transmission of information.
Prerequisites: BS in Computer Science, Engineering, or Mathematics.

COMP-SCI 5511 Advanced Telecommunications Networks Credits: 3
Efficient source coding and channel coding techniques, principles of switching, digital transmission over microwave, copper and optical media, T-carrier and SONET systems, traffic consideration in telecommunications networks, network synchronization, control and management, ATM concepts.
Prerequisites: COMP-SCI 394R, COMP-SCI 411.

COMP-SCI 5513 Digital Cellular Communications Credits: 3
Principles of microwave communications, performance metrics, mobile communications and cellular topology, co-channel and adjacent channel interference, fading and shadowing, various types of diversity, TDMA, FDMA and CDMA and other techniques for channel assignment, cellular network architectures, design considerations, PCN concepts.
Prerequisites: COMP-SCI 411.

COMP-SCI 5514 Optical Fiber Communications Credits: 3
Fiber optic cable and its characteristics, optical sources and transmitters, optical detectors and receivers, optical components such as couplers and connectors, WDM and OFDM techniques, modulation and transmission of information over optical fibers, design of optical networks, single and multihop fiber LANs, optical carrier systems.
Prerequisites: COMP-SCI 411.

COMP-SCI 5514A Optical Networking Credits: 3
Components of optical networks such as OADM, OXC, optical switches, DWDM, and their functions and interactions. Design, analysis and routing over all-optical networks to include waveband, wavelength and lightpath routing.
Prerequisites: COMP-SCI 411.

COMP-SCI 5517 Digital Switching: Techniques and Architectures Credits: 3
Integration of transmission and switching, single and multistage switching principles, space and time division switching, conventional switch architectures such as 4ESS, integration of circuit and packet switching, ATM switching and design considerations, ATM switch architectures, evaluation and comparison, future trends.
Prerequisites: COMP-SCI 394R, COMP-SCI 411.

COMP-SCI 5520 Network Architecture I Credits: 3
Principles, protocols, and architectures of data networks, internetworking, routing, layering, and addressing, with specific investigation of the Internet Protocol (IP), Mobile IP, Multiprotocol Label Switching (MPLS), IP over Asynchronous Transfer Mode (ATM) networks, and virtual private networks.
Prerequisites: COMP-SCI 420 (or COMP-SCI 421A), COMP-SCI 431.

COMP-SCI 5521 Network Architecture II Credits: 3
Principles, protocols and architectural issues of computer networks for transport layer and above, with specific emphasis on TCP/IP for best-effort services as well as for emerging multi-media services.
Prerequisites: COMP-SCI 5520.

COMP-SCI 5522 Computer Network Design and Analysis Credits: 3
Topological design, capacity and flow assignment problem-modeling and algorithms, and their analysis, issues in network control.
Prerequisites: COMP-SCI 303, COMP-SCI 394R, COMP-SCI 421A.

COMP-SCI 5523 Capacity Planning for Service-Oriented Architectures Credits: 3
Web site, cloud service, and data center administrators are faced with the task of adequately sizing their Information Technology (IT) infrastructure so that they can provide quality of service required by users at an affordable cost. In this class we will explore the Internet's complex relationships and how these relationships impact performance and availability of Web and cloud services. The fundamentals of service oriented architectures will be presented and we will develop performance models based on probability fundamentals and the theory of queuing networks and apply these models toward the design and analysis of large scale information systems.
Prerequisites: COMP-SCI 394R, COMP-SCI 421A.
COMP-SCI 5524 Protocol Design Credits: 3
Protocols as formal algorithms, architectural definition, protocol specification languages and models and their translation to implementation languages, overview of verification methods, symbolic execution.
Prerequisites: COMP-SCI 421A.

COMP-SCI 5525 Cloud Computing Credits: 3
Cloud computing systems operate in a very large scale, and are impacting the economics and the assumptions behind computing significantly. This special topics course provides a comprehensive overview of the key technical concepts and issues behind cloud computing systems such as compute, storage and network resource virtualization and management. We will cover a range of topics of cloud computing including: Cloud system architectures and taxonomy, Computing virtualization techniques, Virtual machine resource management, Data center networking issues, Big data transfer protocols and management, Large scale distributed file system examples (Google File System), Cloud programming.
Prerequisites: CSEE 5110, COMP-SCI 431.

COMP-SCI 5526 Network Routing Credits: 3
Algorithms, protocols and analysis for network routing. Routing in different networks such as circuit-switched networks, Internet, broadband networks, and transmission networks are covered.
Prerequisites: COMP-SCI 5520, COMP-SCI 5522.

COMP-SCI 5528 Local Area Networks: Analysis and Design Credits: 3
Definition of local area networks (LAN), LAN architecture and protocols, topology, transmission media, channel access protocols, modeling, simulation and performance evaluation of LANs, considerations in design and implementation, examples.
Prerequisites: COMP-SCI 421A, COMP-SCI 494R.

COMP-SCI 5531 Advanced Operating Systems Credits: 3
Components of an operating system, scheduling/routing mechanisms, process control blocks, design and test various operating system components.
Prerequisites: COMP-SCI 431.

COMP-SCI 5532 Discrete Event Simulation Credits: 3
Review of statistical distributions, generation of pseudorandom variates and stochastic processes, basic queueing systems such as M/M/m and Jackson Networks, simulation project.
Prerequisites: COMP-SCI 5594.

COMP-SCI 5540 Principles of Big Data Management Credits: 3
This course will introduce the essential characteristics of Big Data and why it demands rethinking how we store, process, and manage massive amounts of structured and unstructured data. It will cover the core technical challenges in Big Data management i.e., the storage, retrieval, and analysis of Big Data. It will emphasize on fundamental concepts, analytical skills, critical thinking, and software skills necessary for solving real-world Big Data problems. Tools such as Apache Hadoop, Pig, Hive, HBase, and Apache Spark will be covered. Extensive reading of research papers and in-class presentations will be heavily emphasized in this class.
Prerequisites: COMP-SCI 431 (or equivalent) and COMP-SCI 470 (or equivalent).

COMP-SCI 5542 Big Data Analytics and Applications Credits: 3
Big Data analytics focus on analyzing large amounts of data to find useful information and to make use of the information for better business decisions. This course introduces students to the practice and potential of big data analytics and applications. In this course, students will have hands-on experience with Big Data technologies (Hadoop and its ecosystems) and tools (Cloudera, RMahout, HBase) for the analysis of large data sets across clustered systems. Students will learn how to develop highly interactive applications for business intelligence.
Prerequisites: Software Engineering (COMP-SCI 451).

COMP-SCI 5543 Real-time Big Data Analytics Credits: 3
This course teaches students fundamental theory and practice in the field of big data analytics and real time distributed systems for real time big data applications. In this course, students will have hands-on experience for the development of real-time applications with various tools such as Twitter’s Storm, Apache Flume, Apache Kafka for real time analysis of stream data such as twitter messages and Instagram images.
Prerequisites: Software Engineering (COMP-SCI 451).

COMP-SCI 5551 Advanced Software Engineering Credits: 3
Current concepts in software architecture and design, comparative analysis for design, object-oriented software design, software quality criteria for evaluation of software design. Introduction to metrics, project management and managerial ethics.
Prerequisites: COMP-SCI 451R.

COMP-SCI 5552 Advanced Data Structures Credits: 3
Formal modeling including specification and deviation of abstract data types, completeness issues in the design of data types and data structures, implementation of data structures from a formal data type specification, verification of abstract to concrete data mapping.
Prerequisites: COMP-SCI 291, COMP-SCI 303.
COMP-SCI 5552A Formal Software Specification Credits: 3
Formal modeling including specification and deviant of abstract data types, completeness issues in the design of data types and data structures, implementation of data structures from a formal data type specification, verification of abstract to concrete data mapping.
Prerequisites: COMP-SCI 291, COMP-SCI 303.

COMP-SCI 5553 Software Architecture and Design Credits: 3
The course introduces a number of basic concepts and enabling technologies of software architecture, including architecture styles, architecture description languages, architecture-implementation mapping, and product line architectures. It also covers some advanced topics, such as the REST architecture style and Web Services. Students will read research papers, analyze the existing results, write critiques, give presentations, and exercise the research results with real examples. In addition, students will have an opportunity to work in groups and study the architecture of some real software systems.
Prerequisites: COMP-SCI 451R or equivalent.

COMP-SCI 5554 Software Tools and Programming Environments Credits: 3
Taxonomy of software tools and environments, generic software tool architecture, interface techniques for users, intra-system and stand-alone systems, integration of heterogeneous systems components.
Prerequisites: COMP-SCI 451R.

COMP-SCI 5555 Software Methods and Tools Credits: 3
Software methods and tools are extensively used in current software production to improve software productivity and quality. In this course, we are going to learn a number of popular software methods and tools being used in industry. These methods include object-oriented design and analysis (e.g. UML, design patterns), architecture styles, code generation, and unit testing. The covered software tools include Microsoft Project, IBM Rational Systems Developer, Eclipse Plug-ins, Emacs, JUnit, Subversion, and GIT. The course emphasizes practice, and students will be using these methods and tools to develop a software system, from the initial planning to the final deployment.
Prerequisites: COMP-SCI 349.

COMP-SCI 5556 Human Factors in Computer Systems Credits: 3
Design of "user friendly" man-machine interface, survey of recent psychological studies in man-machine interaction, user interface design, instrumentation and testing, analytic models of man-machine interaction.
Prerequisites: COMP-SCI 451R.

COMP-SCI 5560 Knowledge Discovery and Management Credits: 3
This course teaches students fundamental theory and practice in the field of knowledge discovery and management and also provides them with hands-on experience through application development.
Prerequisites: COMP-SCI 5551, COMP-SCI 461 (or COMP-SCI 464).

COMP-SCI 5561 Advanced Artificial Intelligence Credits: 3
AI systems and their languages, implementations and applications, case studies of various expert systems, current research topics in AI, logic programming using PROLOG.
Prerequisites: COMP-SCI 461.

COMP-SCI 5564 Inference Techniques and Knowledge Representation Credits: 3
Inference Techniques is an in-depth course of logic and automatic theorem proving, intended for Computer Science graduate students, with particular importance to those students interested in Artificial Intelligence. The main areas of study will be concerned with the principals and techniques used for automatic theorem proving. An overview of the representation of knowledge and logic, a detailed appreciation of theorem proving methods, and implementation techniques will be provided in the course. The course will provide background for further study in varying fields of AI.
Prerequisites: COMP-SCI 461.

COMP-SCI 5565 Introduction to Statistical Learning Credits: 3
Introduction to Machine Learning; Multivariate Distributions; Information Theory; Linear Algebra (Eigenanalysis); Supervised/Unsupervised Learning, Classification/Regression; Linear/Non-linear Learning; Introduction to Bayesian Learning (Bayes rule, Prior, Posterior, Maximum Likelihood); Parametric/Non-parametric Estimation.
Prerequisites: Required - Applied Probability (COMP-SCI 394R). Recommended - Linear Algebra (MATH 300); Familiarity with MATLAB or R. OR Consent of instructor.

Cross Listings: COMP-SCI 465R.

COMP-SCI 5566 Introduction to Bioinformatics Credits: 3
This course introduces students to the field of Bioinformatics with a focus on understanding the motivation and computer science behind existing Bioinformatic resources, as well as learning the skills to design and implement new ideas.
Prerequisites: COMP-SCI 303, a course or background in Biology (Genomics or Meta Models preferred).
COMP-SCI 5567 Machine Learning for Data Scientists Credits: 3
This course teaches the theoretical basis of methods for learning from data, illustrated by examples of applications to several domains.
Recommended preparation: COMP-SCI 5565.
Prerequisites: COMP-SCI 303, COMP-SCI 394R, COMP-SCI 330.

COMP-SCI 5568 Fundamentals of Probabilistic Graphical Models Credits: 3
Many real world systems are probabilistic in nature. Probability theory gives us the basic tools for modeling many real world systems, allowing us to understand complex behavior. Probabilistic graphical models allow us to model complex probabilistic relationships using graphs. This framework, which spans methods such as Bayesian networks and Markov networks, allows us to manipulate complex probability distributions that often involve hundreds or even many thousands of variables. These methods have been used for an enormous range of applications, which include: web search, turbo coding, robot navigation, image identification, epidemic identification in complex networks, medical diagnosis and speech recognition.
Prerequisites: COMP-SCI 303, COMP-SCI 394R, COMP-SCI 330, Recommended COMP-SCI 5565.

COMP-SCI 5570 Architecture of Database Management Systems Credits: 3
Covers in detail, architecture of centralized database systems, database processing, management of concurrent transactions, query processing, query optimization, data models, database recovery, data warehousing, workflow, World Wide Web and Database performance, and reviews the architecture of some commercial centralized database systems.
Prerequisites: COMP-SCI 431, COMP-SCI 470.

COMP-SCI 5571 Distributed Database Management Systems Credits: 3
Detailed study of distributed database systems architecture, in-depth study of distributed transaction management, distributed concurrency control and recovery algorithms, database distribution, distributed query optimization and analysis of database system design, and intelligent network databases.
Prerequisites: COMP-SCI 5570.

COMP-SCI 5572 Mobile Computing Credits: 3
This course covers in detail the architecture of mobile and wireless network. It discusses and develops reveland concepts and algorithms for building mobile database systems (MDS), which is necessary for managing information on the air and E-commerce.
Prerequisites: COMP-SCI 5570.

COMP-SCI 5573 Information Security and Assurance Credits: 3
This course deals with information security and assurance and covers the concepts necessary to secure the cyberspace. It introduces security models, assurance policies, security policies and procedures, and technology. It enables students to understand the need for information assurance, identify security vulnerabilities, and devise security solutions that meaningfully raise the level of confidence in computer systems. It teaches students how to design secured database and computer systems.
Prerequisites: COMP-SCI 470.

COMP-SCI 5574 Large Scale Semistructured Data Management Credits: 3
This course will cover topics related to managing large scale semistructured data modeled using the Extensible Markup Language XML and the Resource Description Framework (RDF). This will include storing XML (e.g. natively, using a relational database), indexing XML (e.g. numbering schemes, structural indexes, sequencing paradigms), XML query processing algorithms (e.g. join-based, subsequence-based), RDF DATA STORAGE (e.g. triple stores, graph stores), RDF indexing and SPARQL query processing algorithms. The course will also cover emerging many core processor architectures (e.g. Intel Single-chip Cloud Computer) and the opportunities they provide for building next-generation semistructured data management solutions. Extensive reading of research papers and in-class presentations will be a core part of this class. Grades will be based on in-class presentations of research papers, exams, and a research project (to be done in groups).
Prerequisites: COMP-SCI 470 (or equivalent).

COMP-SCI 5575 Advanced Computer Graphics Credits: 3
Review of transformations, 3D viewing, curve fitting in 3D, generation of surfaces, hidden surface elimination, scan-line coherence, rigid solid representation, shading, color theory.
Prerequisites: COMP-SCI 475.

COMP-SCI 5581 Parallel Computer Architecture I Credits: 3
Parallelism in computer architecture, pipelined processors, array processors and multi-processor systems, algorithms for SISD, SIMD, MISD and MIMD organizations, vectorization, pipelining algorithms.

COMP-SCI 5590 Special Topics Credits: 1-3
Selected topics in specific areas of computer science. May be repeated for credit when the topic varies.
COMP-SCI 5590AW Special Topics Credits: 1-3
COMP-SCI 5590BD Special Topics Credits: 1-3
COMP-SCI 5590CC Special Topics In Computer Science Credits: 1-3
COMP-SCI 5590CI Special Topics Credits: 1-3
COMP-SCI 5590CN Special Topics Credits: 1-3
COMP-SCI 5590HI Special Topics Credits: 1-3
COMP-SCI 5590MT Special Topics Credits: 1-3
COMP-SCI 5590NN Special Topics Credits: 1-3
Selected topics in specific areas of computer science. May be repeated for credit when the topic varies.
COMP-SCI 5590OS Special Topics Credits: 1-3
COMP-SCI 5590PB Special Topics Credits: 1-3
Special Topics
COMP-SCI 5590PG Special Topics In Computer Science Credits: 1-3
COMP-SCI 5590SA Special Topics In Computer Science Credits: 1-3
COMP-SCI 5590WW Special Topics Credits: 1-3
COMP-SCI 5590WX Special Topics Credits: 1-3
COMP-SCI 5590XX Special Topics Credits: 1-3
COMP-SCI 5590YL Special Topics Credits: 1-3
COMP-SCI 5591 Concurrency Models Credits: 3
Concurrency control constructs, P/V primitives, cobegin/coend, monitors, message transmission, rendezvous systems, underlying mathematics of concurrent systems, Petri Nets, liveness (deadlock), reachability, boundedness, invariants, system modeling.
Prerequisites: COMP-SCI 431.

COMP-SCI 5592 Design and Analysis of Algorithms Credits: 3
Combinatorial analysis, searching and sorting, shortest path algorithms, spanning trees, search and traversal techniques, backtracking, branch and bound, heuristics, algebraic simplification and transformation.
Prerequisites: COMP-SCI 303 and COMP-SCI 404.

COMP-SCI 5594 Introduction to Queuing Theory Credits: 3
Review of statistics and probability, stochastic processes, Markov Processes, the basic Poisson process, equilibrium conditions, M/M/1 system with variations local and global balance in networks of queues, open and closed networks.
Prerequisites: COMP-SCI 494R.

COMP-SCI 5595 Mathematical Foundations of Computer Science Credits: 3
Study of the theory, and algorithmic techniques, of the fields of graph theory, combinatorics and number theory, as they relate to their application in the field of computer science.
Prerequisites: COMP-SCI 303, COMP-SCI 494R.

COMP-SCI 5596A Computer Security I: Cryptology Credits: 3
Study of theory, and algorithmic techniques, of the fields of number theory and cryptology, as they are applied in the general area of computer and network security.
Prerequisites: COMP-SCI 291.

COMP-SCI 5596B Computer Security II: Applications Credits: 3
Application of the algorithmic techniques learned in COMP-SCI 5596A to provide suitable security countermeasures to the variety of security threats across the spectrum of computing.
Prerequisites: COMP-SCI 5596A.

COMP-SCI 5597 Directed Readings Credits: 1-3
Readings in an area selected by the graduate student in consultation with a faculty member. Arrangements must be made prior to registration.

COMP-SCI 5598 Research Seminar Credits: 1-3
Graduate research based on intensive readings from the current research literature under the direction of a faculty member. Arrangements must be made prior to registration.

COMP-SCI 5599 Research and Thesis Credits: 1-6
A project investigation leading to a thesis, or written report under the direction of a faculty member. A prospectus must be accepted prior to registration.
COMP-SCI 5622 Advanced Network Analysis Credits: 3
Design and analysis of data networks, comparative analysis of capacity and flow strategies, time-delay/cost trade offs, concentration and buffering in store and forward networks, random access techniques, pure, slotted and reservation type Aloha schemes, carrier sense multiple access.
Prerequisites: COMP-SCI 5522.

COMP-SCI 5623 Network Simulation and Modeling Credits: 3
Simulation and modeling of network topologies and protocols, evaluation of the physical layer, data-link layer, network layer routing algorithms, local and long-haul networks.
Prerequisites: COMP-SCI 5522, COMP-SCI 5532.

COMP-SCI 5651 Distributed Computing for Software Systems Credits: 3
Formal descriptions of problems encountered in distributed computing for architecture. Parameters to formal requirements, operating system support, communications support, process synchronization, and system verification, distinctions between real time and concurrent time. The nature of life cycles, project organization and use of automated tools.
Prerequisites: COMP-SCI 5531 (or COMP-SCI 5551 or COMP-SCI 5570).

COMP-SCI 5690 Advanced Special Topics Credits: 1-3
A lecture course presenting advanced research level topics. This course is intended to allow faculty and visiting scholars to offer special courses in selected research areas.
Prerequisites: Ph.D. Candidacy.

COMP-SCI 5690ND Advanced Special Topics Credits: 1-3

COMP-SCI 5694 Advanced Queueing Theory Credits: 3
Non-Markovian systems such as M/G/1, G/M/1 and G/G/1, solutions of networks of non-Markovian nodes, queuing network approximate solution techniques.
Prerequisites: COMP-SCI 5594.

COMP-SCI 5697 Directed Readings Credits: 1-3
Readings in an area selected by the doctoral student in consultation with a doctoral faculty member. Arrangements must be made prior to registration.

COMP-SCI 5698 Advanced Research Seminar Credits: 1-3
Advanced research by a group of doctoral students based on intensive readings from the current research literature under the direction of one or more doctoral faculty. Original research results of each student are exchanged by presentations and group discussion. Arrangements must be made prior to registration.

COMP-SCI 5699A Research And Dissertation Research In Computer Science Credits: 1-12
Doctoral research in computer science.

COMP-SCI 5899 Required Grad Enrollment Credit: 1

Conservatory (CONSVTY)

Courses
CONSVTY 5116 Minor Opera Role Credit: 1
This is a performance-based course of a minor role in the operatic repertoire and based on the specific repertoire chosen by the Vocal Studies Division. The student may choose to take this course as an elective and will be required to audition for the course at the beginning of the academic school year in order to take this course. Each student who is selected and has accepted the minor operatic role will work with the Conservatory faculty, including the stage director, vocal coaches, voice teachers, and musical director, towards the final staged performance of the selected opera production.
Prerequisites: You must be a graduate student in Vocal Performance in the Conservatory of Music and Dance

CONSVTY 5302 Orchestral Credits: 2
The Conservatory Orchestra comprises string, wind, brass and percussion students of the highest level in the Conservatory and performs repertoire of the highest caliber available to the medium. The repertoire includes the great works for orchestra considered the "standard repertoire" from approximately 1770 to today, and includes orchestral, opera, and choral/orchestral works. Sensitivity to outstanding musicianship, historical styles, and appropriate performance practices are required. In addition to the highest expectations as an instrumentalist, your ability to apply intellect and spirit in meaningful ways during rehearsals and concerts is also demanded. Membership is open to any student who qualifies through audition.

CONSVTY 5305A Principles of Chamber Music Credit: 1
The study and performance of chamber music for strings, piano, winds, brass, and voice. Weekly coaching.
CONSVTY 5305H Chamber Orchestra Credit: 1
The Conservatory Chamber Orchestra comprises instrumental students of the highest level in the Conservatory and performs repertoire of the highest caliber available to the medium. The repertoire includes the "standard repertoire" for chamber orchestra from the Baroque period to new works. The ensemble also "reads" "standard repertoire" for orchestras of all sizes, preparing students for playing these works in a professional setting. Sensitivity to outstanding musicianship, historical styles, and appropriate performance practices are required. Membership is open to any student who qualifies through audition.

Cross Listings: CONSVTY 305H

CONSVTY 5306A Conservatory Wind Ensemble Credits: 2
A select concert band ensemble, designed for high-level, artistic, public performances of major literature for winds and percussion. As a member of this Wind Ensemble, you are contributing to the three hundred year legacy of concert band music in the western world. Sensitivity to outstanding musicianship, historical styles, and appropriate performance practices are required. In addition to the highest expectations as an instrumentalist, your ability to apply intellect and spirit in meaningful ways during rehearsals and concerts is also demanded. Membership in the Wind Ensemble is open to any student who qualifies through audition.

Cross Listings: CONSVTY 306A

CONSVTY 5306C Wind Symphony Credits: 2
The Wind Symphony comprises wind, brass and percussion students of the highest level in the Conservatory and performs repertoire of the highest caliber available to the medium. The curriculum is well balanced between traditional, modern, and chamber music and requires advanced musical and technical facility amongst its members. The class is open to all UMKC students by audition.

Cross Listings: CONSVTY 306C

CONSVTY 5307B Conservatory Singers Credit: 1
This select choir of 32 singers performs chamber chorus repertoire of the 16th-21st centuries at the highest possible artistic level. This class is open to all UMKC students by audition.

Cross Listings: CONSVTY 307C

CONSVTY 5444 The Teaching Performer Credits: 2
The class will focus on teaching techniques for the performing musician, highlighting the advantages of becoming distinguished as a performer and a pedagogue. Premised on the synergistic relationship between teaching and performing, the class will provide a structure for clarifying the essential elements of teaching and musical artistry, and connecting them to such tangible situations as setting up a studio, teaching a master class, interviewing for a job, judging competitions, and recruiting students. The class will provide resources for individuals interested in being university applied faculty, music pedagogy teachers, and professionals looking to add effective teaching to their artistic repertoire.

CONSVTY 5490 Independent Study Credits: 1-3
Intensive reading, research projects, creative work, or special performance in the student’s major field, selected by the student in consultation with the appropriate faculty.

CONSVTY 5516 Major Opera Role Credits: 2
This is a performance-based course of a major role in the operatic repertoire and based on the specific repertoire chosen by the Vocal Studies Division. The student may choose this course as an elective experience and will be required to audition at the beginning of the academic school year and be awarded a major role in order to take this course. Each student who is selected and has accepted the major operatic role will work with the Conservatory faculty, including the stage director, vocal coaches, voice teachers, and musical director, towards the final staged performance of the selected opera.

Prerequisites: You must be a graduate student in vocal performance at the Conservatory of Music and Dance.

CONSVTY 5517 Advanced Opera Workshop: Audition Techniques Credit: 1
Students will work on specific audition techniques for the operatic solo singer, which may include dramatic interpretation of repertoire, stage movement, resume building, and other aspects to assist the performer in the audition process.

Prerequisites: You must be a graduate student in the Conservatory of Music Dance to take this course.

CONSVTY 5520 Theory Seminar in the Works of a Composer Credits: 3
Intensive analytical study of the music of a specific composer. Variable topic as selected by the instructor. May be repeated if a different topic.

Prerequisites: Graduate status in the Conservatory of Music and Dance.

CONSVTY 5523 Analytical Procedures Credits: 3
An introduction to recent methods of stylistic and formal analysis including twelve-tone, Schenkerian and set theoretic approaches.

CONSVTY 5524B Advanced Analysis II: 1600-1900 Credits: 3
Theory and analysis of selected works from the 17th through the mid-19th century.

Prerequisites: CONSVTY 5523.

CONSVTY 5524C Advanced Analysis III: 20th Century to the Present Credits: 3
Theory and analysis of selected works from the late 19th century to the present.

Prerequisites: CONSVTY 5523.
CONSVTY 5526A Introduction to Schenkerian Theory and Analysis Credits: 3
An introduction to the theories and analytic methodology of Heinrich Schenker (1868-1935).
Prerequisites: CONSVTY 421A.

CONSVTY 5526B Schenkerian Theory and Analysis Credits: 3
Continuation of CONSVTY 5526A, emphasizing the acquisition of advanced skills in Schenkerian analysis.
Prerequisites: CONSVTY 5526A.

CONSVTY 5527 Advanced Counterpoint: 18th Century Credits: 3
Analysis and writing in 18th century style and forms including canon, invention and fugue.

CONSVTY 5528 Introduction to Post-Tonal Theory Credits: 3
Analysis and writing in contemporary styles.
Prerequisites: CONSVTY 428.

CONSVTY 5529 Aspects of Time and Music Credits: 3
A course offering a broad-based, multi-disciplinary exploration of the natures of time preparatory to an in-depth study of some of music's primary temporal aspects; these focus on complex treatments of rhythm and meter in tonal music.
Prerequisites: CONSVTY 5523, CONSVTY 5591G.

CONSVTY 5531 Advanced Orchestration Credits: 3
Analysis of advanced orchestration techniques with a focus on relatively recent music for large instrumental ensembles. Discussion of student works-in-progress for orchestra or wind ensemble.
Prerequisites: CONSVTY 431.

CONSVTY 5532 Composition Seminar in the Works of a Composer or Genre Credits: 3
Intensive analytical and compositional study of a specific genre or compositional trend. Variable topic as selected by the instructor. May be repeated if a different topic.
Prerequisites: Graduate status in the Conservatory of Music and Dance

CONSVTY 5533 Advanced Composition Credits: 3
Intensive work in advanced composition in the large forms for various vocal and instrumental ensembles and orchestra. May be repeated for credit.

CONSVTY 5534 Advanced Electronic Music Composition Credits: 3
Creative, original composition of music in diverse styles utilizing the full range of equipment and techniques available. May be repeated for credit.

CONSVTY 5534B Advanced Computer Music Language Study Credits: 3
This course is designed to fulfill the computer language option of the foreign language requirement for DMA students in composition. Focus will be on development and mastery of skills in computer languages specifically related to musical composition, such as MAX or Csound, or in compositional uses of more general languages such as html, C, and Lingo.
Prerequisites: CONSVTY 335.

CONSVTY 5534C Electroacoustic Music Aesthetics and Analysis Credits: 3
An overview of the context and practice of electroacoustic music in two parts: 1) new aesthetic parameters of sonic composition made possible by technology; and 2) creating a cogent analysis of a work by developing individual, personalized analytical tools. Offered in rotation with CONSVTY 5534 and CONSVTY 5534B.

CONSVTY 5536 Improvisation in Music Therapy Credits: 3
This course is designed to learn, lead, and participate in the theory and practice of improvisation in music therapy for clients and therapists.

CONSVTY 5537 Administration of Music Therapy Credits: 3
This course is designed for the person who wishes to become a music therapy professor either entering into an existing program or starting one's own program. It also may be valuable to those considering academia or to be better informed about the academic process when dealing with music therapy programs.

CONSVTY 5540B Advanced Methods In Instrumental Music Credits: 2
Organizational and rehearsal techniques for programs from the beginning bands and orchestras through high school and college ensembles. Includes information regarding methods, materials and program building.

CONSVTY 5540C Advanced Methods In Choral Music Credits: 2
Addresses the organization of secondary and college choral classes and ensembles. Areas of study include methods, materials and program building.

CONSVTY 5541 Theories and Practice of Music Therapy Credits: 3
This course addresses the history and development of the music therapy profession in the United States and other countries. This course is open to music therapy graduate students.
CONSVTY 5542 Clinical Supervision in Music Therapy Credits: 3
This course prepares the music therapist for clinical supervision of music therapy students across training levels and situations. The course includes both theoretical background on supervisee development, issues of clinical supervision, and practical application and skill development in the area of clinical supervision of music therapy students.

CONSVTY 5543 Psychology of Music Credits: 3
The study of psychological aspects of music including acoustical phenomena and factors affecting musical preference, perception and taste. A review of related literature and basic methodology for experimental investigation and quantification of related variables will be included.

CONSVTY 5544 Advanced Clinical Experience Credits: 2
This course provides the graduate student with board certification in music therapy an opportunity to refine and enhance current clinical skills and to develop individually specified American Music Therapy Association Advanced Level Competencies. Students will demonstrate the ability to integrate advanced competencies in musicianship, theory and clinical practice. Students will conform to the AMTA Code of Ethics and standards for Clinical Practice and the CBMT Scope of Practice. The course includes a weekly seminar and clinical rotations at a mutually agreed upon clinical facility.

CONSVTY 5545 Seminar In Music Therapy Credits: 2
This course is designed to address relevant topics in the theory, practice and research of music therapy to promote an advanced level of practice in the music therapist. Topics will be based on faculty scholarship and advanced practice expertise, as well graduate student interest. Course structure will involve weekly meetings with the instructor and independent research and reading by the student.

CONSVTY 5546 Jazz Revolutions: A Historical Perspective Credits: 3
Jazz Revolutions surveys the styles and innovations of jazz musicians who are considered pioneers in the development of jazz. It then places those musicians in a rich cultural and musical context, showing the impact those innovators had on their contemporaries and the musical practices of today both inside and outside of jazz.
Prerequisites: CONSVTY 5593, CONSVTY 5593N.

CONSVTY 5547 Opera History Credits: 3
The history of opera from its origins to the present.
Prerequisites: CONSVTY 5593.

CONSVTY 5548 Opera Literature Credits: 2
A survey of opera literature, opera synopsis, and operatic stagecraft from 1600 to present.
Prerequisites: CONSVTY 5547.

CONSVTY 5550 Musicology Seminar in the Works of a Composer Credits: 3
Intensive study of the music, life, and culture of a specific composer. Variable topic as selected by the instructor. May be repeated if a different topic.
Prerequisites: Graduate status in the Conservatory of Music and Dance.

CONSVTY 5554 Music of the Medieval Era Credits: 3
Seminar in the music of the Middle Ages, from 800 to 1400.
Prerequisites: CONSVTY 5593.

CONSVTY 5555 Music Of The Renaissance Credits: 3
Seminar in the music of the Renaissance, from 1400 to 1600.

CONSVTY 5556 Music of the Baroque Era Credits: 3
Seminar in the music of the Baroque era, from 1600 to 1750.
Prerequisites: CONSVTY 5593.

CONSVTY 5557 Music of the Classical Era Credits: 3
Seminar in the music of the Classical era, from 1750 to 1828.
Prerequisites: CONSVTY 5593.

CONSVTY 5558 Music of the Romantic Era Credits: 3
Seminar in the music of the Romantic era from 1828 to 1914.
Prerequisites: CONSVTY 5593.

CONSVTY 5559A Music Since 1900: 1900-1945 Credits: 3
Seminar in music from 1900 to 1945.
Prerequisites: CONSVTY 5593.

CONSVTY 5559B Music Since 1900: 1945 to the Present Credits: 3
Seminar in music since 1945.
Prerequisites: CONSVTY 5593.
Conservatory (CONSVTY)

CONSVTY 5560A Seminar: History Of Russian Vocal Music Credits: 3

CONSVTY 5560B Seminar: Nineteenth-Century Nationalism In Music Credits: 3

CONSVTY 5560C Seminar: History Of American Music Credits: 3

CONSVTY 5560D American Musical Theater Credits: 3
A survey of trends in the American musical theater from the 18th century to the present.

CONSVTY 5560E Music and Film Credits: 3
This course will survey the use of music in cinema. It will include sections on music, technology, the film medium and the various ways in which music adds to the cinematic experience.

Prerequisites: Graduate status.

CONSVTY 5560F Music of Asia Credits: 3
This course surveys music in East Asia, from historical styles to traditional music to contemporary composition.

Prerequisites: Graduate status.

CONSVTY 5560G Music of Latin America Credits: 3
Survey of selected musical traditions (sacred and secular, folk, traditional, and concert music) and representative composers of Central and South America.

Prerequisites: CONSVTY 5593.

CONSVTY 5564 History And Literature Of Chamber Music Credits: 3
A study of masterpieces of chamber literature, vocal and instrumental, from various periods, through research, listening, and performance.

CONSVTY 5566A Advanced Vocal Literature: French Melodies Credits: 2
In-depth study of the French melodies of Duparc, Faure, Debussy, Ravel, and Poulenc.

CONSVTY 5566B Advanced Vocal Literature: German Lieder Credits: 2
In-depth study of the German lieder of Schubert, Schumann, Brahms, Wolf, Mahler, and Strauss.

CONSVTY 5566C Advanced Vocal Literature: Nationalistic Art Songs Credits: 2
In-depth study of Nationalistic art songs of Russia, Scandinavia, Spain, and Middle Europe.

CONSVTY 5566D Advanced Vocal Literature: 20Th Century Amer & Engl Art Songs Credits: 2
In-depth study of the 20th Century American and English art songs.

CONSVTY 5569 Graduate Piano Literature Seminar Credits: 2
Advanced study of piano literature through research, analysis and performance. Topics will vary from semester to semester.

CONSVTY 5574 History And Philosophy Of Music Education Credits: 3
An overview of the history of music education in this country from the beginning of the seventeenth century to the present. Also includes a discussion of the major philosophical models used to justify the study of music.

CONSVTY 5576 Professional Aspects Of College Teaching Credits: 2
Designed for graduate students planning a career in college teaching. Covers preparation of job application materials; presentation of a master class; interviews with a search committee and dean; faculty loads and evaluation procedures; tenure and rank, and relationships with students, colleagues and administrators.

CONSVTY 5577 Advanced Vocal Diction Credits: 2
This course is designed to review and hone diction skills in Italian, French and German on the level of professional opera, recital and oratorio performance; the vocal literature is approached through the text with both reading and singing practice. It is limited to graduate vocal majors.

Prerequisites: CONSVTY 171, 172.

CONSVTY 5578 Research for Music Teachers Credits: 3
This course examines common practitioner-based research designs used by music educators. During this class, students will learn about and complete projects that utilize rigorous research design procedures and concepts.

CONSVTY 5580 Advanced Choral Conducting-Masters Level Credit: 1
An overview of conducting topics, including score preparation technique, and performance problems. May be repeated for credit.

CONSV TY 5582A Advanced Choral Conducting-Technique Credits: 2
An introductory study of the techniques of choral conducting. An overview of conducting topics, including score preparation, rehearsal techniques and performance problems. May be repeated for credit.

CONSVTY 5582B Advanced Choral Conducting - Style Credits: 2
A study of conducting problems of music of the Renaissance, Baroque, Classic, Romantic and Twentieth century; further examination of performance problems associated with choral performances of madrigals, chamber music, a cappella works and music utilizing advanced compositional techniques. May be repeated for credit.
CONSVTY 5582C Advanced Choral Conducting-Rehearsal Techniques Credits: 2
An advanced study of methods and rehearsal procedures in the development and organization of choral performance; includes concepts of tone quality, diction, programming, and development of communication skills. May be repeated for credit.

CONSVTY 5583A Advanced Instrumental Conducting Credits: 2
An introductory study of the techniques of instrumental conducting. An overview of conducting topics, including score preparation, rehearsal techniques and performance problems.

CONSVTY 5583B Advanced Instrumental Conducting - Orchestra Credits: 2
A further study of the techniques of instrumental conducting, including such topics as string techniques, performance practice, baton technique and the art of accompaniment.
Prerequisites: CONSVTY 5583A.

CONSVTY 5583C Advanced Instrumental Conducting - Band Credits: 2
A further study of the technique of band conducting, including such topics as wind/percussion techniques, performance practice, baton technique, and contemporary wind chamber repertoire.
Prerequisites: CONSVTY 5583A.

CONSVTY 5584 Systematic and Integrated Reviews in Music Credits: 2
Maintaining an awareness of the vast array of information available in the literature and integrating it into practice is a vital skill for evidence-based and best practice in music-based professions. This course will introduce graduate students to a methodological system of analyzing and synthesizing high quality research to answer a relevant question. The pursuit of scholarly dissemination of information for the advancement of music-based professions will be encouraged.

CONSVTY 5585 Introduction to Descriptive Research in Music Credits: 3
This course examines common descriptive research designs and statistical concepts used by music therapists and music educators. During this class, students will learn about and complete projects that utilize nonparametric and parametric statistical tests.

CONSVTY 5586A Seminar In Orchestral Literature Credits: 2
Advanced study of a variety of styles, periods, and analytical procedures encountered by orchestral conductors. Content will vary from semester to semester. May be repeated for credit.

CONSVTY 5586B Seminar In Wind/Band Literature Credits: 2
Advanced study of a variety of styles, periods, and analytical procedures encountered by instrumental conductors of wind ensembles/bands. Content will vary from semester to semester. May be repeated for credit.

CONSVTY 5587 Seminar In Choral Literature Credits: 2
Each seminar is concerned with the conductor's viewpoint of a segment of the literature from the specified historical periods and styles, and explores the analysis, interpretation, historical context, and conducting problems of that literature. May be repeated for credit.

CONSVTY 5589 Academic Portfolio Credits: 1-3
Creative synthesis of coursework or clinical experience resulting in original products such as research documents, pedagogical materials, technology applications, music compositions or arrangements, and musical improvisation applications. Portfolio item may not include materials used to meet admission requirements. May be repeated for credit.

CONSVTY 5589A Academic Portfolio II Credits: 1-3
Additional coursework or clinical experience resulting in original products.
Co-requisites: CONSVTY 5589.

CONSVTY 5590 Special Topics Credits: 1-3
A seminar in selected topics in various fields and idioms of music. May be repeated for credit when the topic varies.
CONSVTY 5590AC Special Topics Credits: 1-3
CONSVTY 5590AD Special Topics Credits: 1-3
CONSVTY 5590BC Special Topics Credits: 1-3
CONSVTY 5590BJ Special Topics Credits: 1-3
CONSVTY 5590CA Special Topics Credits: 1-3
CONSVTY 5590CE Special Topics Credits: 1-3
CONSVTY 5590CF Special Topics Credits: 1-3
CONSVTY 5590CJ Special Topics Credits: 1-3
CONSVTY 5590CL Special Topics Credits: 1-3
CONSVTY 5590CT Special Topics Credits: 1-3
CONSVTY 5590CY Special Topics Credits: 1-3
CONSVTY 5590DC Special Topics Credits: 1-3
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CONSVTY 5590HE Special Topics Credits: 1-3
CONSVTY 5590HG Special Topics Credits: 1-3
CONSVTY 5590HS Special Topics Credits: 1-3
CONSVTY 5590IG Special Topics Credits: 1-3
CONSVTY 5590IN Special Topics Credits: 1-3
CONSVTY 5590IT Special Topics Credits: 1-3
CONSVTY 5590JDT Special Topics Credits: 1-3
CONSVTY 5590JH Special Topics Credits: 1-3
CONSVTY 5590JP Special Topics Credits: 1-3
CONSVTY 5590LM Special Topics Credits: 1-3
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CONSVTY 5590OL Special Topics Credits: 1-3
CONSVTY 5590OW Special Topics Credits: 1-3
CONSVTY 5590PA Special Topics Credits: 1-3
CONSVTY 5590PC Special Topics Credits: 1-3
CONSVTY 5590PO Special Topics Credits: 1-3
CONSVTY 5590PP Special Topics Credits: 1-3
CONSVTY 5590PS Special Topics Credits: 1-3
CONSVTY 5590SE Special Topics Credits: 1-3
CONSVTY 5590SV Special Topics Credits: 1-3
CONSVTY 5590TD Special Topics Credits: 1-3
CONSVTY 5590TF Special Topics Credits: 1-3
CONSVTY 5590TJ Special Topics Credits: 1-3
CONSVTY 5590TT Special Topics Credits: 1-3

CONSVTY 5591E Group Piano Pedagogy Credits: 3
Study of teaching techniques and materials related to teaching group piano at the college level. Course responsibilities include both observation and supervised teaching.
CONSVTY 5591G Pedagogy of Music Theory Credits: 3
Study and application of methods, philosophies, materials and current trends in music theory pedagogy. Students engage in supervised teaching, research projects, and observations of music theory faculty.

CONSVTY 5591H Advanced Pedagogy I - Voice Credits: 2

CONSVTY 5591J Advanced Pedagogy I-General Credits: 2
An overview of basic pedagogical practice including modes of instruction, feedback, reinforcement, and assessment. Students will review current literature in this area and develop a project related to their own teaching.

CONSVTY 5591K Pedagogy of Music History Credits: 3
Techniques and materials related to teaching music history and music appreciation combined with supervised teaching.

CONSVTY 5592E Advanced Piano Pedagogy Credits: 3
Study of teaching techniques and materials related to teaching applied piano at the collegiate level. Course responsibilities include both observation and supervised teaching.

CONSVTY 5592H Advanced Pedagogy II - Voice Credits: 2

CONSVTY 5593 Introduction To Research And Bibliography In Music Credits: 3
A survey of procedure in bibliography, research, and scholarly writing.

CONSVTY 5593N Introduction to Research and Bibliography in Music Credits: 3
A survey of procedures in bibliography, research, and scholarly writing.

CONSVTY 5594A Introduction To Experimental Research In Music Credits: 3
This course provides students with an introduction to experimental methodologies in music. Course topics include a reviewing literature in music, proposal writing, design, data analysis and scholarly writing styles used in music research.

CONSVTY 5597 Master's Recital Credits: 4
For voice students, a one hour weekly participation in Vocal Performance Seminar is required.

CONSVTY 5597A Master's Conducting Performance Credits: 4

CONSVTY 5597B Master's Recital II Credits: 4

CONSVTY 5597CE Master's Recital Credits: 4

CONSVTY 5598 Research Problems Credits: 2
Individual study with a member of the graduate faculty that will culminate in a final project. The project must be completed within two consecutive semesters, submitted to and graded by the supervising professor, and submitted to the Associate Dean of Graduate Studies for archiving.

CONSVTY 5598B Research Problems In Computer Languages And Music Credits: 1-3
Individual study with a member of the adjunct, associate, or graduate faculty. Study will culminate in the production of a project (computer program, CD-ROM, composition, or other document) that demonstrates skills in computer languages specifically related to music. This course fulfills the computer language option of the foreign language for DMA students in composition.

CONSVTY 5599 Thesis Credits: 1-9

CONSVTY 5693 Advanced Research and Bibliography In Music Credits: 3
Advanced procedures in bibliography, research, and scholarly writing.

Prerequisites: CONSVTY 5593.

CONSVTY 5695 Practicum In Music Education Credits: 3-6
Individual conference course requiring the development of a research paper in a special subject and designed to resolve a practical problem of special interest to the student. Conference.

CONSVTY 5697 Doctoral Recital Credits: 4
For voice students, a one hour weekly participation in Vocal Performance Seminar is required.

CONSVTY 5697A Doctoral Lecture Recital Credits: 4

CONSVTY 5697B Doctoral Conducting Performance Credits: 1-4
CONSVTY 5697BP Doctoral Conducting Performance Paper Credit: 1
Individual study with the student's conducting teacher. Study will culminate in the writing of a formal paper addressing aspects of a doctoral conducting performance.

CONSVTY 5697C Doctoral Recital II Credits: 1-4
CONSVTY 5697CP Doctoral Recital Paper II Credit: 1
Additional individual study with the student's applied teacher. Study will culminate in the writing of another formal paper addressing aspects of a doctoral recital.

Co-requisites: CONSVTY 5697P.
CONSVTY 5697D Doctoral Conducting Performance II Credits: 1-4
Additional individual study with the student's conducting teacher. Study will culminate in the writing of another formal paper addressing aspects of a doctoral conducting performance.

Co-requisites: CONSVTY 5697BP.

CONSVTY 5697P Doctoral Recital Paper Credit: 1
Individual study with the student's applied teacher. Study will culminate in the writing of a formal paper addressing aspects of a doctoral recital.

CONSVTY 5698 Research Problems Credits: 2
Individual study with a member of the adjunct, associate, graduate or doctoral faculty. Study will culminate in the writing of a scholarly paper.

CONSVTY 5698A Doctoral Research Problems II Credits: 2
Additional study with a member of the adjunct, associate, graduate or doctoral faculty. Study will culminate in the writing of another scholarly paper.

Co-requisites: CONSVTY 5698.

CONSVTY 5698B Doctoral Music Product Credits: 1-4
Individual study with a member of the adjunct, associate, graduate, or doctoral faculty. Study will culminate in the writing of a creative, original composition, arrangement or edition of music.

CONSVTY 5699 Dissertation Research Credits: 1-16

Counseling Psychology and Counselor Education (CPCE)

Courses

CPCE 5500 Introduction To Professional Counseling Credits: 3
This course introduces students to the professions of counseling and counseling psychology as practiced in a variety of settings. The course provides an overview of basic concepts of mental health, client problems, history of the profession, ethical and professional standards, counseling in a multicultural and pluralistic society, and licensure and credentialing. The course also orients students to the counseling program at UMKC. May be taken prior to admission.

CPCE 5502 Fndtns Of Elementary & Secondary School Counseling & Guidance Credits: 3
The course will present an overview of theory and practice in the field of school counseling and will examine the roles and functions of guidance counselors. For School Counseling Emphasis only.

CPCE 5503 Psychopathology: Diagnoses And Classification Credits: 3
This course is designed to provide students with an opportunity to study psychopathological patterns, mental disorders, and other reactions in client behavior, which are encountered by therapists, counselors, and psychologists in contemporary psychological service systems. The major focus of the course will be on learning current diagnostic criteria and making differential diagnoses. Attention will also be given to the etiology, development, dynamics, and treatment of psychopathology. In addition, the influence of culture on behavior and treatment will be discussed.

Prerequisites: CPCE 5500.

CPCE 5504 School Guidance Programs Credits: 3
This course will provide knowledge and skills in the development and management of school guidance programs, including program planning, implementing and evaluation.

CPCE 5505 Career Development I Credits: 3
Theories of career development and vocational choice and their implications in counseling. Emphasizes knowledge of occupational and career information sources and use of these data by counselors and counseling psychologists. Open to any student who has been admitted to an advanced degree program.

CPCE 5515 Assessment Methods In Professional Counseling Credits: 3
This course provides an understanding of assessment process and assessment techniques. Students will develop skills in selection, administration, and interpretation of representative assessment instruments.

Prerequisites: CPCE 5500.

CPCE 5520 Theories of Counseling Credits: 3
Theoretical positions in counseling; significance of these theories in professional practice. To be taken prior to CPCE 5531.

Co-requisites: CPCE 5500, CPCE 5530.

CPCE 5521 Special Counseling Methods - Substance Abuse Credits: 3
Theories and methods of counseling as applied to clients with substance abuse problems. Includes assessment, treatment strategies, and evaluation. Skills practice in implementing methods.
CPCE 5523 Counseling the Older Adult Credits: 3
This course provides an overview of the basic biological, psychological and social aspects of later life as preparation for counseling the diverse older adult population. Current evidence-based theory related to this specific population is presented along with refinement of interpersonal and counseling skills to support counseling intervention with older adults and their families in the multiple contexts they are served. Best practice examples for meeting the needs and providing mental health services to older adults are reviewed.

CPCE 5527 Theory And Methods Of Sexual Counseling Credits: 3
The focus of this course is on sexual development and the acquisition of therapeutic skills to work with problems relating to human sexual functioning and sexual dysfunctions.  
Co-requisites: CPCE 5520.

CPCE 5528 Introduction to Play Therapy Credits: 3
Course covers the philosophy and rationale for using play media in counseling with children and the history of play therapy. The client-centered theoretical approach will be examined with an emphasis on creating and maintaining a relationship with the child that allows for the effective use of play media.

CPCE 5530 Methods Of Counseling Credits: 3
This course is designed to introduce students to the fundamental concepts and methods of counseling. Students will apply ethical and multicultural principles to the helping relationship while learning the basic methods of humanistic, psychodynamic, and cognitive behavioral approaches as they relate to the helping process. A main focus of this course is the acquisition of basic helping skills. Students will also become familiar with counseling outcome research and will increase their level of counselor self-awareness.  
Prerequisites: CPCE 5520.

CPCE 5531 Counseling Practicum I Credits: 3
Closely supervised therapeutic counseling with individuals; translation of theory into practice; clinical and professional techniques and issues.  
Prerequisites: CPCE 5532.

CPCE 5532 Counseling Practicum II Credits: 3
Supervised therapeutic counseling with individuals and consultation in professional settings.  
Prerequisites: CPCE 5531.

CPCE 5533 Couples And Family Therapy Practicum Credits: 3-6
Supervised application of theories and methods of family therapy with individuals, couples and families.  
Prerequisites: CPCE 5532 and CPCE 5542.

Co-requisites: CPCE 5541.

CPCE 5534 Practicum For The Assessment Of Children And Adolescents Credits: 3
The practicum for the assessment of children and adolescents covers the facilitation of psychological evaluations for this population and includes maintaining a caseload of assessment evaluations to complete through the CCS Assessment Center. Specialized assessment evaluations and conceptualization issues are covered in the second half of the course, with evaluations for ADHD and other learning disorders emphasized. Special topics will be discussed at the end of the course.  
Prerequisites: CPCE 5515.

CPCE 5539 Continuing Counseling Practicum Credits: 1-6
Supervised therapeutic counseling with individuals.  
Prerequisites: CPCE 5532.

CPCE 5540 Theories And Methods In Group Counseling Credits: 3
Theories and research in group counseling, including knowledge and skills in establishing and maintaining a counseling group; effective group leadership; therapeutic factors in groups; strategies for group development; and ethical and multicultural considerations in group work. Requires participation in a professional growth group.  
Prerequisites: CPCE 5530.

CPCE 5541 Couples And Family Therapy Credits: 3
Introduction to family relationships and the application of life cycle stages to working with couples and families. Focus also includes the study of a range of family configurations and issues with attention to diversity.

CPCE 5542 Theories and Techniques of Family Systems Therapy Credits: 3
A study of major family systems theories and their applied practices in family therapy. Students will develop skills in family assessment techniques and family therapy processes.  
Prerequisites: CPCE 5530.
CPCE 5547 Psychology of Stress and Trauma Credits: 3
This course is designed to introduce students to the psychology of stress and trauma. Students will learn about the effects of stress and trauma, as well as counseling interventions that address the effects of stress and trauma. Specifically, students will learn about vicarious trauma, the psychophysiology of stress and trauma, diagnostic and assessment-related issues with stress and trauma, therapeutic approaches to working with trauma survivors, multicultural and social justice considerations, and trauma therapy as applied to specific populations.

Prerequisites: Admission to a degree program in the Counseling and Educational Psychology (CEP) division at UMKC, or if from a program outside of CEP, approval from the course instructor.

CPCE 5550 Organization And Administration Of Counseling Programs Credits: 3
Organization, administration, and planning of counseling programs with emphasis on their practical aspect; counseling practice in schools and agencies; intraprofessional relationships; legal and ethical considerations. Course to be taken near completion of the master's program.

CPCE 5551 Counseling in a Pluralistic Society Credits: 3
Addresses the needs of diverse populations served by counselors and addresses developing intervention methods of working with these populations. Focuses on advocacy and change agent roles of counselors.

Prerequisites: CPCE 5520.

CPCE 5553 Ethics And Professional Issues In Counseling Credits: 3
This course is designed to examine the major ethical and professional issues within the counseling profession. More specific, ethical dilemmas and professional issues relevant to the practice of mental health, marriage and family, school and substance abuse counseling are the major foci of this course. In addition, instruction is designed to enhance student understanding of the ethical standards such that students can effectively apply the critical thinking necessary to practice ethical behavior with clients, professional colleagues, consultees, and the communities in which they work.

CPCE 5575A Internship In Counseling I Credits: 3-16
First semester of a sequence of applied experiences in a planned, supervised program. Seminar accompanies internship experiences. The following areas of specialization are available: a) Marriage and Family, b) Mental Health, c) School, and d) Substance Abuse.

Prerequisites: CPCE 5532.

CPCE 5575B Internship In Counseling II Credits: 3-16
Second semester of a sequence of applied experiences in a planned, supervised program. Seminar accompanies internship experiences. The following areas of specialization are available: a) Marriage and Family, b) Mental Health, c) School, and d) Substance Abuse.

Prerequisites: Admission to Educational Specialist program in counseling, CPCE 5575A.

CPCE 5575C Internship In Counseling III Credits: 3-16
Third semester of a sequence of applied experiences in a planned, supervised program. Seminar accompanies internship experiences. The following areas of specialization are available: a) Marriage and Family, b) Mental Health, c) School, and d) Substance Abuse.

Prerequisites: Admission to Educational Specialist program in counseling.

CPCE 5589 Special Topics Credits: 1-6
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed in the semester bulletin.

CPCE 5589CA Special Topics Credits: 1-6
CPCE 5589GC Special Topics Credits: 3
CPCE 5589NP Special Topics Credits: 1-6
CPCE 5589PL Special Topics Credits: 1-6
CPCE 5589SE Special Topics Credits: 1-6
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed in the semester schedule.

CPCE 5590 Prevention, Consultation, and Program Evaluation in Community Settings Credits: 3
Course provides an overview of mental health consultation and collaboration in community settings. Models and theories of consultation and considerations for ethical practice in diverse settings are reviewed. The course also introduces prevention and program development and evaluation as roles for professional counselors. The course will briefly review the history of prevention, and allow students to develop a prevention program for a population of interest.

Prerequisites: CPCE 5532 or CPCE 5533.

CPCE 5598 Individual Studies Credits: 1-6
Review of the research and trends relative to selected problems.

CPCE 5599 Research And Thesis Credits: 1-9
Research and Thesis
CPCE 5600 Introduction To Counseling Psychology Credit: 1
This course is intended to assist new doctoral students in their orientation to UMKC and to the profession of Counseling Psychology. The course also introduces students to the ethical principles and code of conduct for psychologists.

CPCE 5605 Career Development II Credits: 3
Major theories and research in vocational psychology and career development and implications for the work of the counseling psychologist and counselor.
**Prerequisites:** CPCE 5505.

CPCE 5609 Assessment II: Intellectual And Cognitive Assessment Credits: 3
This course is designed to provide students with a foundation in the use of intellectual and cognitive assessment instruments in clinical evaluation. The course covers theoretical issues pertinent to intellectual and cognitive assessment as well as basic assessment skills including administration, scoring, interpretation, and communication of results for commonly used measures.
**Prerequisites:** Admission to the Ph.D Program in Counseling Psychology.

**Cross Listings:** PSYCH 5509.

CPCE 5610 Theoretical And Professional Issues In Counseling Psychology Credits: 3
This course is designed to introduce first year doctoral students to the fundamental concepts and methods of psychology conceived as the application of scientific and ethical reasoning to human problems. It will provide an in-depth examination of the American Psychological Association code of ethics and its application to the conduct of psychologists. Critical and analytical thinking will be emphasized in all aspects of the course. The course will cover broad models of clinical and counseling psychology and their historical and scientific foundations, issues in diagnosis, cross-cultural applications and professional problems in light of ethical principles, professional standards, scientific data multi-cultural contexts.

CPCE 5611 Objective Personality Assessment Credits: 3
This course is designed to help students develop knowledge and skills related to the selection, administration, and interpretation of some representative objective personality assessment instruments used in counseling/clinical settings. Students will also learn to integrate data obtained from an assessment battery to write comprehensive psychological reports.

CPCE 5615 Survey Of Research In Counseling Psychology Credits: 3
Survey of significant research in counseling psychology. Critical evaluation of research procedures, instrumentation, and clinical application of results.
**Prerequisites:** EDUC-R&P 5605 and EDUC-R&P 5608.

CPCE 5620 Advanced Theories And Methods Of Counseling Credits: 3
Personality and learning theories and their implications for professional practice in counseling psychology. Emphasis on critical evaluation of assumptions, methods, comprehensiveness and usefulness of the theories, with reference to related research.
**Prerequisites:** CPCE 5532.

CPCE 5631 Advanced Counseling Practicum Credits: 3
Advanced supervised therapeutic counseling with individuals and supervised consultation in clinical settings.
**Prerequisites:** CPCE 5532.

CPCE 5632 Practicum In Group Counseling Credits: 3
Leading groups under supervision. Focus on problems and experiences of counselors and counseling psychologists when leading groups.
**Prerequisites:** M.A. in Counseling, CPCE 5540.

CPCE 5633 Advanced Couples & Family Practicum Credits: 3
Advanced supervised application of theories and methods of family therapy with individuals, couples and families.
**Prerequisites:** CPCE 5542.

CPCE 5634 Assessment Practicum Credits: 3
The practicum for assessment of children, adolescents, and adults covers the administration of psychological evaluations and includes maintaining a caseload of assessment evaluations. Specialized assessment evaluations and conceptualization issues as well as special topics are covered, with evaluations for ADHD and learning disorders emphasized.
**Prerequisites:** CPCE 5611, 5609, 5531, 5532.

CPCE 5639 Continuing Advanced Counseling Practicum Credits: 1-6
Supervised therapeutic counseling with individuals, beyond the advanced level.
**Prerequisites:** CPCE 5631.

CPCE 5640 Theories And Methods Of Counseling Supervision Credits: 2
This course offers an overview of counseling supervision theories and models, and contemporary research. It also addresses supervision process and tasks, diversity in supervision, and supervisor's ethical and legal responsibilities.
**Prerequisites:** CPCE 5631.
CPCE 5641 Supervision Practicum Credit: 1
This course is designed to provide students with an opportunity to practice supervision. Students will be assigned 2 to 3 counselors-in-training from a CPCE 5531 and CPCE 5532 practicum class to supervise over the course of a semester. The practicum instructor will provide weekly supervision.
Prerequisites: CPCE 5640.

CPCE 5645 Projective Testing Credits: 3
Course focuses on the diagnostic use of projective assessment techniques, with a special focus on the Rorschach Inkblot Test.
Prerequisites: CPCE 5515, Enrolled in Doctoral Psych. Program, and Measurement of Intelligence or Cognitive Assessment course.

CPCE 5650 Prevention and Consultation in Counseling Psychology Credits: 3
An overview of the psychologist's role in consultation, program development and evaluation in the context of prevention. Students will also apply their knowledge and develop skills in prevention and consultation by developing a prevention program for a real-life setting.

CPCE 5675 Internship In Counseling Psychology Credits: 1-16
Applied experiences in a professional setting under supervision of licensed psychologists.

CPCE 5690 Special Problems Credits: 1-6
Individual studies; thesis exploration; special reading.

CPCE 5699 Research And Dissertation Credits: 1-16
Research and Dissertation.

Criminal Justice and Criminology (CJC)

Courses

CJC 5500 Sociology Of Law Credits: 3
A sociological study of the legal system with focus on organizational analyses of the legal profession, courts as a social system, the bureaucratization of the legal process, stratification and the allocation of legal services and careers.

CJC 5511 Sociological Methods II Credits: 3
Quantitative research is the primary focus of the course; emphasis is placed on problem formulation; research design; sampling procedures, questionnaire construction and interviewing techniques; data collection; problems of scaling, computer statistical programs; linking appropriate statistical analyses with data analysis; and report writing.
Prerequisites: CJC 483 or equivalent.

Cross Listings: SOCIOL 5511.

CJC 5515 Qualitative Research Methods in Criminal Justice Credits: 3
This course focuses on qualitative research methods, such as interviewing techniques, focus groups, content analysis, and field observation. Emphasis is placed on research design, data collection, and data analysis.
Prerequisites: CJC 483 or equivalent.

CJC 5516 Intermediate Statistics Credits: 3
A systematic development of the logic and practice of selected statistical methods used in sociological research. Included are analysis of variance and covariance, regression analysis, multiple contingency, and non-parametric tests.
Prerequisites: CJC 363 or equivalent.

Cross Listings: SOCIOL 5516.

CJC 5518 Advanced Criminological Theory Credits: 3
This course provides an understanding of past as well as present criminological theories by examining each criminological tradition (beginning in the 18th century and continuing into the present.) The primary aim of the course is to determine the root causes of deviant and criminal behaviors. Moreover, this course offers special attention to how society has historically reacted and responded to crime and deviant behavior. Furthermore, by examining crime and deviant behavior from a historical context, the students are able to determine how criminological theories have influenced public policies designed to reduce and control criminal behavior. In the final analysis, students will examine the rationales that society use to justify efforts toward punishment and treatment.
Prerequisites: CJC 319 or equivalent.

CJC 5520 Juvenile Justice Credits: 3
This course provides a historical and contemporary overview of the juvenile justice system via a critical examination of the function of this system and theories explaining delinquency in adolescence. We will explore special topics within juvenile justice and proposals for juvenile justice reform.

CJC 5551 Seminar In Policing Credits: 3
This course addresses the important topics related to the institution of policing. Through readings and class discussions, students will gain a better understanding of both historical aspects of policing as well as the future of policing. Topics include selection, training and socialization, police management, deviance and corruption, use of force, community oriented policing.
CJC 5565 Seminar In Crime Prevention Credits: 3
This seminar examines variations in methods to reduce crime in America, including strategies from the criminal justice system as well as other institutions. Building on established criminological theory, this seminar will evaluate the best practices to prevent crime across a variety of social contexts.

CJC 5570 Contemporary Corrections And Correctional Policy Credits: 3
Present-day correctional alternatives are considered regarding the correctional policy that is, or potentially can be, carried out within the various programs. Prisons, probation, parole community-based programs are evaluated as to the theory of punishment demonstrated within these programs. Emphasis is placed on what constitutes a rational and workable corrections policy and the form of correctional programs needed to realize such policy.

CJC 5575 Correctional Rehabilitation And Treatment Credits: 3
This course will begin with a thorough examination of the rise, fall, and recent resurrection of “rehabilitation and treatment” in American correctional strategies. Both past and current treatment strategies will be studied regarding their effectiveness in reducing recidivism. This will be done through a survey of the quantitative literature base. There will be some emphasis on treating special needs offenders (e.g., sex offenders, juvenile offenders, offenders with developmental disabilities or mental illnesses.)

CJC 5576 Seminar In Criminal Justice And Criminology Issues Credits: 3
This course is an advanced exploration of the relationship between the criminal justice system and criminal behavior from at least one of the following perspectives: psychological, sociological, economic, legal, political or administration/management. Will include discussions and analysis of contemporary readings and on-going research in the selected perspective.

CJC 5580 Seminar: Policy And Decision Making In Criminal Justice Credits: 3
The focus of the course is assessment of the character and recent crime trends in the United States, with attention to identifying elements that shape justice system policies in response to crime. Consideration is given to the nature and scope of policy and decision-making processes in legal institutions and law enforcement bureaucracies, how such policies have impacted crime, and alternative policies address the problem of crime.

CJC 5590 Directed Studies In Criminal Justice And Criminology Credits: 1-3
Individual research and study in the student’s field of interest as approved and directed by major professors. The work involves examination and reporting of selected problems affecting the various agencies of our legal system. A. Law Enforcement B. Court Operations and Administration C. Corrections D. Legal Theory and Philosophy E. Criminological Theory F. Sociology of Law.

CJC 5592 Advanced GIS For Crime Analysis Credits: 3
This course provides an overview of crime mapping as it relates to the spatial and temporal analysis of crime. Utilizing theory related to criminal offending, this course will provide students with hands-on experience in geographic profiling and crime prevention strategies.
Prerequisites: GEOG 203 or equivalent.

CJC 5595 Crime Analysis Internship Credits: 3
This experience involves working with crime analysts in the field. Students will learn and hone practical skills while being supervised by department faculty or staff.
Prerequisites: CJC 5592.

CJC 5599 Research And Thesis Credits: 1-6
Directed specialized research. Before writing a thesis, the student must clear the topic and research design with the Supervisory Committee.
CJC 5699 Dissertation Research Credits: 1-12
Individual directed research leading to preparation and completion of doctoral dissertation.
Prerequisites: Ph.D. course requirements completed.
CJC 5899 Required Graduate Enrollment Credit: 1

Curriculum and Instruction (EDUC-C&I)

Courses
EDUC-C&I 5504 Social Studies In the Schools Credits: 3
Trends and curricular developments in social studies. Focus on the development of social studies concepts, the development of critical thinking skills, and analysis of values.

EDUC-C&I 5505 Introduction To Curriculum Theory Credits: 3
An introduction to curriculum theory with the recognition that knowledge, power, ideology and schooling are connected to patterns of complexity and contradictions. Emphasis will be placed on curricula that cultivate theoretical discourses about the quality and purpose of schooling and human life.

EDUC-C&I 5506 Curriculum Design Credits: 3
This course is designed to enhance educators’ skills in the areas of curriculum design and interpretation. Students will apply and adapt strategies for curriculum development as well as for interpreting and adapting existing curricula.
EDUC-C&I 5508 Curriculum And Methods For Teaching The Non-Motivated Learner Credits: 3
Analysis of materials relevant to reluctant learners; student-teacher prepared consumable materials; current research; methods for presenting material.

EDUC-C&I 5509 Reducing Risk Factors For Students In Educational & Community Stn Credits: 3
The course offers an overview of current research and of special programs that deal with students who are likely to fail at school or in life. The roles of the larger society in helping create such problems will be considered. There will be an emphasis on early identification of such students and a consideration and evaluation of a number of programs designed to help them. The course will also present descriptions of the roles that educators can implement in programs designed for prevention and intervention.

EDUC-C&I 5510 Differentiating Instruction Through Teaching/Learning Styles Credits: 3
Teaching practices based upon teaching/learning styles are explored and modeled. Through differentiated instruction students learn to use style preferences to meet the needs of learners in a typical classroom including the culturally diverse, at-risk, the remedial, the learning disabled, the gifted, and the special needs students. Differentiation emphasizes learning centers, self-selection, self-pacing, subgrouping, contracting and peer tutoring. (K-12).

EDUC-C&I 5511 Developing Multidisciplinary Problem Solving Skills Credits: 3
Development of heuristic strategies in problem analysis, information processing, modeling and logical thinking. Study of methods and materials for teaching problem solving strategies, with applications from several school curriculum areas and instructional settings. Use of microcomputers to develop skills.

EDUC-C&I 5512 Strategies For Effective Classroom Management Credits: 3
The course presents several current approaches to classroom management and how they might be applied to the classroom. The approaches are evaluated in terms of psychological theory and research. Direct experiences with discipline problems are offered through simulation and role-playing.

EDUC-C&I 5513 Effective Communication In The Classroom Credits: 3
This course will emphasize the relationship between communication and classroom climate, and the influence of communication on motivation and student behavior. Communication with large groups, small groups, and individuals is studied and practiced.

EDUC-C&I 5514 Overview of Culturally Responsive Pedagogy Credits: 3
An introduction to ways of thinking about the relationship among teaching, learning, learner characteristics and experiences, and learning outcomes for traditionally underserved students. Particular attention will be given to a framework for understanding the meaning of culture in framing the curriculum and engaging students in meaningful learning experiences and tasks. A practice-based approach to improving learning for traditionally underserved students will be employed. Each participant will be required to participate in and facilitate discussion, develop a personal inventory, and conduct a historical analysis of her/his school and its relation to the community.

EDUC-C&I 5515 Integrated Arts As A Model For Classroom Instruction Credits: 3
This course provides background on theory, research and practice in arts education. Students will learn to integrate the arts across the curriculum and explore the value of the arts as conveyors of information, powerful tools of communication and bridges to the broader culture. This course will also give the students the opportunity to create, study and experience the arts as a model for classroom instruction.

EDUC-C&I 5516 Understanding the Crisis in Urban Schools Credits: 3
The participants in this course will develop deep knowledge of practices related to long-term and persistent challenges in urban schools. Participants will examine well-documented accounts of conditions and situations within and outside that influence the culture and learning outcomes in high performing and low performing urban schools. These accounts will represent multiple perspectives including those of teachers, administrators, students, parents, and other stakeholders. The insights gained from the documented accounts examined in this course will be used to conceptualize new context-specific approaches and frameworks for improving practices, policies, and learning outcomes in urban schools.

EDUC-C&I 5517 Teaching Methods And Practices Credits: 3
This course is designed to present and evaluate basic instructional methods and techniques and to determine the ways in which instruction is affected by the social and cultural context of the school.

EDUC-C&I 5518 Assessment of Diverse Learners, Engagement and Motivation Credits: 3
A framework for assessing diverse learners and implementing culturally responsive pedagogy, leading to increased learner engagement and motivation. An overview of the purposes of assessments, how assessment measures are aligned to the principles of culturally responsive pedagogy, and implications for overall learner academic, personal and social growth. Finally, specific strategies for building engagement and motivation, particularly for learners living in poverty and those from ethnically diverse backgrounds are provided.

EDUC-C&I 5519 Discipline Specific Pedagogy for Diverse Learners Credits: 3
An introduction to the use of research-based, discipline specific pedagogy for traditionally under served students in core subject areas of reading, mathematics, science and social studies. Additionally, participants examine the philosophy and theoretical perspectives that support different pedagogical approaches and the social context for learning in classrooms with diverse students.

EDUC-C&I 5520 English Curriculum In The Middle And High School Credits: 3
Advanced study of contemporary programs and procedures in specialized sectors of the secondary school curriculum. Examination of program objectives, teaching methods, and instructional materials in English.

Prerequisites: valid regular teaching certificate, undergraduate special methods or equivalent, teaching experience.
EDUC-C&I 5522 Language Arts Curriculum In The Elementary And Middle School Credits: 3
Consideration of language concepts as they relate to the teaching of the Language Arts in Grades K through 8. Significant research and its application to current trends in teaching the language arts will be explored.
Prerequisites: an undergraduate course in Language Arts or reading.

EDUC-C&I 5523 Advanced Literature For Children Credits: 3
This course emphasizes the critical analysis and selection of a variety of genres of multicultural children’s print, digital, and online literature in order to create “windows and mirrors” (Bishop, 1990) through literature for diverse educational settings. It will emphasize using literature with culturally and linguistically diverse groups of students, explicitly modeling literacy skills and teaching literacy strategies, and exploring prevalent myths and stereotypes in society that are often reflected in children’s and young adult literature.

EDUC-C&I 5524 Advanced Methods of Teaching English Language Arts for Grades 5-9 Credits: 3
Students will study research-based, developmentally appropriate pedagogies for teaching English Language Arts in grades 5-9. Course will foreground processes of analytic inquiry and cycles of planning, enacting, interpreting and translating learning experiences to meet the needs of all students. Topics will include methods of teaching reading, literature, writing, language study, speaking/listening, research skills, as well as technology integration.

EDUC-C&I 5525 The Craft of Writing Credits: 3
Students will learn inquiry-based pedagogies for teaching writing in grades 5-9. The course will address the role of the ELA teacher as lead writer in the classroom, and students will develop their own writing process and practice across a range of genres. Students will learn how to create a classroom community of writers through a variety of evidence-based frameworks and practical strategies for effective writing instruction. Topics will address processes of conferencing for instruction, feedback and evaluation supported by current research. Students also will learn effective methods for embedding meaningful stylistic and mechanical instruction to support writer/writing development.

EDUC-C&I 5526 The Craft of Reading Credits: 3
Students will examine inquiry-based pedagogies for teaching reading in grades 5-9. The course will address the role of the ELA teacher as lead reader in the classroom, and students will examine their own reading process and strategies through a variety of interpretive and analytic approaches supported by current research, including reader response and close reading. Topics will address evidence-based frameworks for effective reading instruction, comprehension strategies of diverse readers, and methods of reading assessment, data analysis and reflective practice.

EDUC-C&I 5528 Teaching Nonfiction Texts for Grades 5-9 Credits: 3
Students will gain an understanding of pedagogies for teaching both the craft and criticism of nonfiction texts. Emphasis will be placed upon integration of nonfiction via thematic pairing with existing texts. Topics will include analysis and application of text structures, text features, rhetorical strategies and literary devices, as well as deconstruction and interrogation of state and national standards relating to the teaching of nonfiction texts.

EDUC-C&I 5531 Mathematics Learning Difficulties: Identification and Intervention Credits: 3
Designed for inservice and preservice teachers to explore the interrelation of mathematics concepts and instructional strategies to enhance the mathematical learning of students who underachieve in mathematics and/or struggle with mathematics.
Prerequisites: Any mathematics teaching methods course.

EDUC-C&I 5536 Specialized Secondary School Curriculum Mathematics Credits: 3
Advanced study of contemporary programs and procedures in specialized sectors of the secondary school curriculum. Examinations of program objectives, teaching methods and instructional materials in Mathematics.
Prerequisites: valid regular teaching certificate, undergraduate Special Methods or equivalent, teaching experience.

EDUC-C&I 5539 Mathematics Curriculum Development Credits: 3
Application of principles of curriculum development to the mathematics content and instructions. Development of a rationale for objectives and content selection and for evaluation. Study and evaluation of current programs, trends and experiments.

EDUC-C&I 5540 Evaluation Of Computer Software Credits: 3
The goals of the course are to provide students with a systematic evaluation process which analyzes the hardware resources and application needs of various user groups. This course provides the student with both an academic understanding of evaluation and requirement analysis for educational user groups. The course includes a practicum activity for application projects.

EDUC-C&I 5541 Teaching Mathematics With Computer Credits: 3
The use of a variety of technologies and the appropriate software in teaching secondary mathematics will be investigated and the resulting impact on curriculum will be covered.
Prerequisites: Mathematics teaching certificate or the equivalent of an undergraduate degree in mathematics.

EDUC-C&I 5542 Methods of Teaching English as a Second Language Credits: 3
This course covers the historical and current approaches, methods, and techniques of teaching English to speakers of other languages, from grammar translation to audiolingual and communicative approaches. Additionally, successful classroom practices that address the needs of culturally and linguistically diverse students will be presented.

EDUC-C&I 5543 English Grammar for ESOL Teachers Credits: 3
This course is about teaching English grammar and methods of teaching grammar for graduates, prospective and current teachers of English to speakers of other languages. It includes analysis of the major grammatical structures of American English, discussion of the role of teaching grammar, effective classroom methods and techniques for the English as a second/foreign language classroom.
EDUC-C&I 5544 Theory and Research in Second Language Teaching and Learning Credits: 3
This course covers both second language learning theories and second language research and design. It will also contain a survey of both qualitative and quantitative research literature.

EDUC-C&I 5545 Linguistics for ESOL Teachers Credits: 3
This course is an introduction to linguistic theories focusing on topics that are particularly relevant to ESOL teachers in culturally and linguistically diverse settings. It also covers applying these theories to practice in ESOL classrooms. The contents include basic practical knowledge in phonetics, phonology, morphology, syntax, pragmatics and semantics.

EDUC-C&I 5546 Intercultural communication Credits: 3
This course serves as an introduction to the background of English language learners (ELL) from many countries of the world. It also serves to facilitate ESOL students' success in ELL and mainstream classrooms. The course will introduce culture in general at first and then focus on how to better understand the ELL students' cultures. Class participants will learn to develop lessons that enhance intercultural communication and understanding among all students.

EDUC-C&I 5547 Second Language Acquisition Credits: 3
This course focuses on the foundations of second language learning and teaching. Major theoretical approaches to second language acquisition and second language learning will be discussed. The course is also one of the requirements for an endorsement to teach in English as a second language classroom.

EDUC-C&I 5548 English As A Second Language In Content Areas Credits: 3
Theoretical perspectives of teaching, learning and researching literacy development. The focus of this course will be on content based English as a second language instruction. The course is one of the requirements for an endorsement to teach in an English as a second language classroom.

EDUC-C&I 5549 Practicum In English As A Second Language Credits: 3
A four-week practicum for teachers and researchers in the field of second language learning and teaching. Students will have the opportunity to develop their own teaching plan of action according to the curriculum guidelines of the program in which they participate. Students will develop a portfolio and reflection piece about their own learning in the practicum.

EDUC-C&I 5551 Science Curriculum In The Middle And High School Credits: 3
Advanced study of contemporary programs and procedures in specialized sectors of the secondary school curriculum. Examination of program objectives, teaching methods and instructional materials in Natural Sciences. 
Prerequisites: valid regular teaching certificate, undergraduate special methods or equivalent, teaching experience.

EDUC-C&I 5553 Curriculum And Instruction In Science Credits: 3
Advanced study of contemporary programs and practices in science education at all instructional levels. Examination of program objectives and teaching methods and development of instructional materials for classroom use. 
Prerequisites: A science teaching methods course and teaching experience.

EDUC-C&I 5554 Assessment In Science Education Credits: 3
Advanced study of science education assessment with option for elementary or secondary emphasis.

EDUC-C&I 5560 Teaching And Learning In The Urban Classroom Credits: 3
Emphasis will be placed on examining cultural beliefs, assumptions, values and their influence on the processes of teaching, perception of the urban learner, understanding the characteristics of the urban learner, and transforming pedagogical practices. 
Prerequisites: EDUC-UL 5525 MA Multic Ed Students Only with 15 Prog Credit hours

EDUC-C&I 5561 Teaching Diverse Populations In Today's Classrooms Credits: 3
This course focuses on culturally responsive pedagogies for meeting the academic needs and learning styles of culturally diverse students. Emphasis will be placed on critical investigation of the role of socio-cultural dynamics on learning and teaching, and design of curriculum, materials, and pedagogical and disciplinary practices that affirm student's culture. The ultimate goal of the course is to examine ways in which a culture-based curricular perspective provides powerful scaffolding for enabling and empowering educational experiences for diverse students. 
Prerequisites: EDUC-UL 5525, EDUC-UL 5526, EDUC-UL 5527, or EDUC-UL 5528.

EDUC-C&I 5562 Teaching For Equity And Social Justice Credits: 3
This course examines a systems approach to the design, development, assessment, and implementation of school practices that support equity and social justice for all students. It investigates issues of educational inequities and educational empowerment. Practitioners will develop the knowledge, skills and dispositions needed for empowering self and students. Emphasis will be placed on social action learning, empowerment and agency. 
Prerequisites: EDUC-UL 5525, EDUC-UL 5526, or EDUC-UL 5528 and EDUC-C&I 5560 or EDUC-C&I 5561 or EDUC-C&I 5562.

EDUC-C&I 5563 Multicultural Perspectives In Education Credits: 3
This course provides an opportunity for students to engage in a critical and in-depth study of multicultural education. Students will examine current theoretical, conceptual, ideological, and political positions that help frame the multicultural education debate. The ultimate goal of the course is to help students develop critical and multiple perspectives about education in a democratic society with the aim of transforming curricular and pedagogical practice. 
Prerequisites: EDUC-UL 5525, EDUC-UL 5526, EDUC-UL 5527 or EDUC-UL 5528 and EDUC-C&I 5560 or EDUC-C&I 5561.
EDUC-C&I 5565 Social Studies Curriculum Elementary Education Credits: 3
Trends and new curricular developments in elementary school social studies. Focus on integration of social science concepts, the development of critical thinking skills, and analysis of values.

EDUC-C&I 5566 Social Studies Curriculum In The Middle And High School Credits: 3
Advanced study of contemporary programs and procedures in specialized sectors of the secondary school curriculum. Examinations of program objectives, teaching methods, and instructional materials in Social Studies.

Prerequisites: valid regular teaching certificate, undergraduate special methods or equivalent, teaching experience.

EDUC-C&I 5570 Curriculum And Instruction In Technology Credits: 3
Study of contemporary programs and practices of technology usage in education at all instructional levels. Examination and application of technologically enhanced teaching methods, assessment, and curriculum development for classroom use.

EDUC-C&I 5571 Cognition & Technology Credits: 3
The purpose of this course is to respond to current research in the field of cognition and educational technology and design an evaluative research response to a local technology program. The educators will define the concepts concerning implementation of new technologies into learning environments and the mediational effects on the types and quality of learning that result from that process.

EDUC-C&I 5572 Assessing The Role Of Technology In Education Credits: 3
The purpose of the course is to develop an understanding of changing role of technology in education by reviewing current and historical articles on the topic. This includes a historical analysis of trends and expectations within educational settings and outside educational settings and defining the educator's understandings of the role of technology in educational settings, past, present and future.

EDUC-C&I 5573 Development Learning Tech Progs:Traditional & Non-Trad Settings Credits: 3
The purpose of this course is to develop understandings of currently implemented educational technologies including both software and hardware configurations. The educators will review current use of a variety of current technologies integrated into traditional settings and non-traditional settings and evaluate their effectiveness in developing standards-based learning outcomes and constructivist-based learning outcomes.

EDUC-C&I 5575 Internship - Early Childhood Credits: 3-16
Applied experiences in a planned, supervised curriculum program. Seminar accompanies internship experiences.

EDUC-C&I 5576 Administration Of Early Childhood Programs Credits: 3
This course is designed to examine the administrative functions and decisions involved in effectively directing an Early Childhood Program. Students may plan their own Early Childhood Program incorporating philosophical values and beliefs.

EDUC-C&I 5577 Early Childhood Special Education Methods Credits: 3
EDUC-C&I 5577 provides an overview of the field of early childhood special education, with an emphasis on inclusive education for young children ages birth-third grade. This emphasis includes methods and practices for providing services for young children with special needs and their families and the adaptation of developmentally appropriate curriculum and the classroom environment. Historical, political, and theoretical contexts are provided as framework for the course.

EDUC-C&I 5578 Play In Early Childhood Education Credits: 3
The purpose of this course is to study the various play theories and developmental levels of play. Students plan play activities and participate in Early Childhood programs.

EDUC-C&I 5579 History, Theories, And Issues In Early Childhood Education Credits: 3
This course is designed to explore the historical and theoretical principles in early childhood education. Current issues in the field will be examined and discussed.

EDUC-C&I 5580 Curriculum In Early Childhood Education Credits: 3
The content of this course will include an exploration of appropriate curriculum and instruction of early childhood classrooms. Students will recognize, understand and analyze the differences and similarities between early childhood curriculum and instruction methods and elementary education instruction.

EDUC-C&I 5581 Infant-Toddler Programs: Research Theory And Practice Credits: 3
This course is designed to investigate the research relevant to infant and toddler programs, learn about the appropriate curriculum and teaching methods, and visit infant and toddler programs.

EDUC-C&I 5582 Program Models In Early Childhood Education Credits: 3
This course is designed to explore and analyze program models in early childhood education in terms of their theoretical and/or philosophical bases and their transformation into practice. During this process, students are encouraged to evaluate their own personal views and values concerning teaching/learning issues in early childhood education.

EDUC-C&I 5583 Supervision In Early Childhood Education Credits: 3
The purpose of this course is to study the process of effective supervision of staff in the diverse contexts of early childhood education. This course is designed to prepare students to supervise teachers, staff, paraprofessionals, or volunteers in early childhood education programs. Students will explore theories of adult development, the supervision process, professional development, and the evaluation process.

EDUC-C&I 5584 Early Childhood Culminating Project Credits: 1-6
This seminar is designed for graduate students to explore current issues and topics pertaining to the field of early childhood education. An in-depth investigation of ways to work with community agencies will be included.
EDUC-C&I 5585 Teaching and Learning with Technology Credits: 3
This is an introductory course that covers the fundamental of standard educational computer applications in addition to providing the basic concepts regarding classroom hardware and software integration. This course familiarizes students with the National Educational Technology Standards For Teachers and Students. Because of the computer’s increasing importance in all phases of education, hands-on experiences are required throughout the course.

EDUC-C&I 5586 Multimedia in Education Credits: 3
This course will introduce students to a variety of methods for creating instructional multimedia materials for K-16 classroom use, with a particular emphasis on free and web-based digital editing and conversion programs.
**Prerequisites:** EDUC-C&I 5585 (or TCH-ED 385).

EDUC-C&I 5587 Facilitating Technology Implementation Credits: 3
This course will prepare students to facilitate the integration of educational technology in PK-12 settings. Skills taught will include planning and implementing educational technology professional development to classroom teachers and integration strategies that increase the potential for meaningful learning.
**Prerequisites:** EDUC-C&I 5585 (or TCH-ED 385).

EDUC-C&I 5589 Special Topics In Education Credits: 1-6
A course designed to deal with a curriculum topic which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed on the semester bulletin.

EDUC-C&I 5590 Seminar Credits: 3
Discussion and evaluation of literature in curriculum.
**Prerequisites:** EDUC-C&I 5505.

EDUC-C&I 5591 Curriculum & Instruction For The 21St Century Credits: 3
A seminar including critical examination of current issues affecting schools such as education for democracy and global interdependence in a diversified society, curriculum and instruction in a technological, post-industrial society; the changing demographics of the U.S. and the implications for curriculum and instruction; and the roles of teachers and administrators in the school of the future. Students will be actively involved in "research-in-action" study of both theory and practice.
EDUC-C&I 5595 Action Research For Practitioners Credits: 3
This course comprises a guided graduate research paper experience. Course participants will work together to plan individual action research studies related to diverse, urban schooling. This course is designed to enable practitioners to engage in systematic inquiry on some aspect of their practice in order to find out more about that practice and eventually improve it. Participants in the course are expected to put their assumptions, ideas and practices to the test by gathering, analyzing and drawing conclusions from evidence. This course is to be taken during the last year of degree study. Course enrollment requires faculty advisor approval and a minimum 3.0 GPA. Participation in this course entails a field placement for research purposes. If a placement in a school is required, students will need to complete a TB test and submit fingerprints for the standard Background Check process by the start of the semester. Any costs associated with these tests are the responsibility of the student. All course participants are further required to obtain a LiveText subscription.

EDUC-C&I 5596 Classroom Assessment Credits: 3
This course is designed to help practitioners develop an understanding of the various roles of classroom assessment, strengthen their own assessment strategies be able to better use data in the development of curriculum that is appropriate for all learners. Students will develop a more clear understanding of the relationship of curriculum, instruction assessment ways in which good assessments can help diverse learners.

EDUC-C&I 5598 Individual Studies Credits: 1-6
Review of the research and trends relative to curriculum in education.

EDUC-C&I 5618 Survey Of Research In Curriculum Credits: 3
Review and analysis of research in curriculum theory and methods.

EDUC-C&I 5619 Systemic Curriculum Evaluation and Review Credits: 3
This course focuses on current practices in systemic curriculum review at the grade, school, district or state level in order to better serve the needs of diverse learners. Emphasis will be placed on the processes of curriculum review, curriculum change, implementation, evaluation of changes, and ongoing long-range curriculum planning and review.

EDUC-C&I 5620 Seminars In Theories Related To Curriculum Credits: 3
Study of major historical developments in curriculum and their influence on contemporary models and practices. 
Prerequisites: EDUC-C&I 5504 or EDUC-C&I 5505.

EDUC-C&I 5626 Seminar in Multicultural Perspectives In Education Credits: 3
This seminar provides an opportunity for student engagement in critical and in-depth study of multicultural perspectives in education. Students will examine current demographic and achievement realities and the theoretical, conceptual, ideological, and political positions that frame multicultural education. The ultimate goal is to help students develop multicultural competence, critical and multiple perspectives about education for a democratic society, and comprehensive knowledge base, skills, and dispositions for transformative intellectualism and change agency. 
Prerequisites: Interdisciplinary Ph.D. Student Status and EDRP 5608.

EDUC-C&I 5640 Curriculum and Teaching for the College Classroom Credits: 3
This course provides a foundation for preparing for and engaging in instruction at the college level. The emphasis is on curriculum planning, assessment, feedback, classroom interactions, and student motivation across a wide variety of discipline areas. This course may also be counted toward course credit allocation for the Preparing Future Faculty online graduate certificate program.

EDUC-C&I 5641 Apprenticeship and Conference in College Training Credits: 2-6
This course provides a foundation for preparing for and engaging in instruction at the college level. The emphasis is on apprenticeship experience in preparing, conducting, and evaluating college teaching under direction of and in conference with supervising professors.

EDUC-C&I 5690 Special Problems Credits: 1-6
Individual studies: thesis exploration, special reading.

EDUC-C&I 5697 Dissertation Curriculum And Instruction Credits: 1-16
Dissertation Curriculum And Instruction

Decision Science and Operations Management (DSOM)

Courses
DSOM 5505 Decision Sciences Credit: 1.5
Understanding the conceptual framework of statistics as it relates to business decision-making and problem solving. Most of the work will be done based on the real-life applications of statistical concepts to business problems and cases. The course includes the topics of descriptive statistics, probability distributions, tests of hypotheses, and multi-variate analysis.

DSOM 5507 Operations and Supply Chain Management Credit: 1.5
An integrating study that focuses on the models and methods of supply chain and operations management (SCOM). Managerial approaches to planning, scheduling, and controlling cost, time quality, production, inventory, services, and supply chain are studied. This survey course exposes students to supply chain management, ERP systems, lean/just-in-time, total quality management, e-commerce, and other contemporary SCOM topics in both product and service-oriented organizations.
DSOM 5508 Statistical Analysis In Business Credits: 3
Data analysis and statistical inference in the context of business management. Communication of analysis and conclusions using text, numbers, and graphics is emphasized. Understanding the conceptual framework of probability and statistics as it relates to statistical tests and procedures is emphasized more than computational methods. Most of the work will be done using a computer spreadsheet. The course includes the topics of estimation, tests of hypotheses, analysis of variance, and multiple regression.

DSOM 5509 Applied Statistical Methods Credits: 2
Investigates the use of detailed sample data for purposes of estimating, predicting, forecasting, and explaining correlations among varied observations. Students will apply the concepts of probability theory, central tendency, sampling, inference, modeling, and forecasting to help solve managerial problems and support decision processes.

Prerequisites: Admission to Executive MBA Program.

DSOM 5522 Managerial Statistics and Quantitative Decision Making Credits: 2
Managerial statistics introduces the student to the statistical methodology used in making business decisions. The ethics of accurately presenting results without bias is emphasized. Concepts of probability, confidence intervals, hypothesis testing, ANOVA, correlation, regression, and ANCOVA are examined in the context of business and organization applications and solving statistical problems using the Statistical Package for Social Sciences (SPSS).

DSOM 5524 Data Analytics and Quantitative Decision Making Credits: 2
Students learn how to use business analytics in support of managerial decision making. Decision analysis, forecasting, simulations, risk analysis, optimization models, and sensitivity analysis will be covered.

DSOM 5525 Operations and Supply Chain Management Credits: 2
An examination of the basic principles and strategies used to manage the production and distribution of goods and services. This course positions operations management (OM) as an important tool for achieving strategic leadership through competitive advantage, and illustrates how the managerial integration of OM functions with corporate strategy improves business processes. Concepts covered in the course include (but are not limited to) operations strategy, process management, world class SCM, strategic sourcing, and quality management. Emphasis will be placed on the application of these concepts to actual business situations.

Prerequisites: Student must be enrolled in the Full-Time MBA program and in good academic standing.

DSOM 5540 Service Operations Management Credits: 3
This course focuses on the increasing importance and role of service in our economy. Topics studied are: the role of services in an economy, the nature of services, service strategy, the service delivery system, service facility location, the service encounter, service quality, productivity and quality improvement. Methods of process analysis in service organizations, methods improvement procedures, and work measurement techniques are developed to provide the basis for analyses of processes, layouts, and job design in a service organization.

Prerequisites: DSOM 5519 (or equivalent).

DSOM 5542 ERP-Enterprise Resource Planning Systems Credits: 3
Discusses the design and implementation of Advanced Manufacturing Technologies (AMT). This includes just-in-time (JIT) systems, cellular and flexible manufacturing systems (CM FMS), computer integrated manufacturing (CIM), and enterprise resource Planning (ERP) systems. It also explores the role that manufacturing plays in product development efforts and cross-functional teams. Other topics such as manufacturing strategy, maintenance, set-up and lot size reductions, group technology and focused factories, production and operations scheduling and control techniques, and the design of work systems are presented as well. Case Studies and group projects/presentations are used for instructional purposes. Students are also required to use the MAX software to perform an ERP system analysis.

Prerequisites: DSOM 5519 (or equivalent).

DSOM 5543 Project Management Credits: 3
Planning and control of projects, to include network models, risk analysis, time reduction, resource scheduling, leadership, and evaluation.

Prerequisites: DSOM 5519 (or equivalent).

DSOM 5544 Global Supply Chain and Logistics Management Credits: 3
A study of integrated global supply chain management and logistics. Topics include integrating global ERP and forecasting systems, inventory management, distribution requirements planning, supply chain management, purchasing and supplier/vendor networks, logistics, transportation networks, and E-operations. ERP systems and network optimization are studied relative to both production and service operations.

Prerequisites: DSOM 5519 (or equivalent).

DSOM 5545 Strategic Sourcing & Supplier Relationship Management Credits: 3
This course explores the roles of procurement and strategic sourcing as components of an overall supply chain strategy, and the impact this strategy has on the competitive success and profitability of organizations. The course will be structured into three segments: before you source, how to source, and after sourcing. Topics will include spend analysis, supplier research, market analysis, supplier evaluation, global sourcing considerations, negotiating, and supplier relationship management. The students will also gain an appreciation of the ethical, contractual, risk management, sustainability, and legal issues faced by purchasing professionals.
DSOM 5566 Operations Management for World Class Competitiveness Credits: 2
An examination of the basic principles and strategies used to manage the production and distribution of goods and services. This course positions operations management (OM) as an important tool for achieving strategic leadership through competitive advantage, and illustrates how the managerial integration of OM functions with corporate strategy improves business processes.
Prerequisites: Admission to the Executive MBA program.

DSOM 5587 Special Topics Credits: 3
Special topics in decision science and operations management.

DSOM 5595 Internship Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community.

DSOM 5597 Independent Study Credits: 1-6
Independent study and research in areas of special interest under individual faculty direction.

DSOM 5899 Required Graduate Enrollment Credit: 1

Dental Hygiene (DENT-HYG)

Courses
DENT-HYG 5500 Introduction to Educational Methodology Credits: 3
This course is designed to introduce the student to basic educational methodologies and to provide participants with a better understanding of the teaching/learning process. The course includes units on instructor/student relationships, educational approaches, educational ethics and professionalism, the scholarship of teaching and learning and curriculum theory.

DENT-HYG 5502 Foundations of Teaching Credits: 2
This course provides an introduction to the evidence-based best practices in course design for students who are preparing for a career in teaching and for those who simply wish to learn more about classroom instruction. Students will explore outcomes centered course design. Content application activities include syllabus development, writing objectives, constructing lesson plans, preparing presentations, developing course management sites, and test development.
Prerequisites: Must be a student enrolled in the MSDHE program.

DENT-HYG 5510 Student Teaching and Conference I Credits: 2-4
Student teaching experience in classroom areas as selected by the student under the direction of a supervising professor. The student develops behavioral course objectives, test and examination items, classroom presentations, and prepares student evaluations in the selected classroom teaching areas. The student may select teaching assignments in one of the developed externship student teaching programs. Conferences will be held in conjunction with the course.
Prerequisites: DENT-HYG 4040, DENT-HYG 5500.

DENT-HYG 5512 Student Teaching and Conference II Credits: 2-4
This course is designed to provide the graduate dental hygiene student with additional experience in classroom teaching. Student teaching experiences will be selected by the student under the direction of and in conference with a supervising professor.

DENT-HYG 5516 Special Issues in Higher Education for Health Professional Credits: 3
This course is designed to introduce the student to matters encountered in higher education - specific to dental hygiene education. Weekly readings, assignments, and sessions will familiarize the student in topics such as: writing resumes and cvs, motivational interviewing, accreditation, promotion and tenure, and social media.

DENT-HYG 5530 Clinical Instruction and Conference I Credits: 2-4
Students will actively participate in clinical instruction under the supervision of a dental hygiene faculty member. Topics relative to clinical teaching will be discussed in weekly seminars. Students will be encouraged to apply knowledge gained in DENT-HYG 4620 and DENT-HYG 5500 during clinical instructional experiences. Additionally the student must participate in at least ”day of clinic per week to equal another credit hour of course work.

DENT-HYG 5532 Clinical Instruction and Conference II Credits: 2-4
This course is a continuation of DENT-HYG 5530. Under the supervision of the dental hygiene faculty, the student will continue to develop skills as a dental hygiene clinical instructor.
Prerequisites: DENT-HYG 5530.

DENT-HYG 5553 Evidence Based Decision Making in the Clinical Practice of Dental Hygiene Credits: 2-4
This course is designed for the graduate and degree completion dental hygiene student and will expand on the student's basic knowledge of the dental hygiene process of care. Utilization of evidence based decision making skills will be explored in an effort to incorporate current scientific literature, personal clinical experience and patient preferences as it relates to the delivery of comprehensive patient care. Skills taught in this course will enhance background knowledge related to the dental hygiene process of care and help to foster an attitude of critical analysis and life-long learning.
DENT-HYG 5560 Practicum in Clinical Supervision and Management Credits: 2-4
Practical experience in functioning as a Clinic Supervisor. Clinical managerial projects will be assigned according to students’ interests and goals by agreement between student and instructor.

DENT-HYG 5565 Advanced Special Patient Care Practicum I Credits: 1-4
This course is designed to familiarize the student with general principles of cancer therapy and the role of the dental team in the multidisciplinary care of patients undergoing oncology treatments. Special emphasis will be placed on the treatment of the patient with head and neck cancer, and preventive and palliative dental interventions for control of the orl complications associated with all cancer therapies. Cancer prevention issues and the psychosocial and economic impact of cancer diagnosis will also be discussed.

DENT-HYG 5566 Advanced Special Patient Care Practicum II Credits: 1-4
This course will provide the graduate dental hygiene student with the opportunity to explore the relationship of an oncology dental program to medical health care facilities.

DENT-HYG 5570 Administrative Practicum Credits: 1-4
Practical experience in administration. The student selects areas of responsibility based on their goals and interests in administration. Possible areas of involvement are: recruitment, admissions, curriculum and course development, course scheduling, grant and report writing and student advising.

DENT-HYG 5575 Practicing in the Dental Hygiene Public Safety Net Credits: 3
This course is designed to increase the knowledge base of practicing dental hygienists in the area of public health dentistry, including public health promotion, disease prevention, current legislation, evidence based treatment, school based portable dentistry, coalitions, treating the geriatric and disabled populations, as well as how to write and secure grant monies. In addition, the course will expose dental hygienists to a variety of public health settings in which they can practice under the sponsorship of a dentist in a variety of public health settings including schools and long term care facilities in Kansas.

Prerequisites: Must be a student enrolled in the MSDHE program.

DENT-HYG 5576 Extended Care Permit (ECP) III Training Course Credits: 2
The Extended Care Permit (ECP) III Training Course is designed to prepare a registered dental hygienist to apply for the Kansas Extended Care Permit III. Hygienists with the ECP III certificate can practice under the sponsorship of a dentist in a variety of public health settings including schools and long term care facilities in Kansas.

DENT-HYG 5585 Portfolio Capstone Course Credit: 1
This capstone course serves as the culminating experience for students in the MS in Dental Hygiene Education (MS in DHE). During the Capstone course, students will create a coherent and cohesive body of work reflective of attainment of the competencies for their respective programs - in the form of an e-Portfolio. This course should be taken in the semester of anticipated completion/graduation of the MS in DHE program.

DENT-HYG 5590 Independent Study Credits: 1-4
Independent study of a particular topic or area of interest to the student in dental hygiene/dentistry and/or higher education.

DENT-HYG 5595 Writing in Science Credits: 1-2
This seminar course is designed to provide advanced education students in the health professions the skills necessary to write and communicate in science. Course activities and topics include: critical analysis of the literature, literature summary tables, structure and organization of documents, style and usage, drafting, revising and finishing. Participants will practice the craft of scientific writing not only as the writer but also as the reader providing correction and reorganization where appropriate. While this course examines many writing tasks, exercise culminate with the development of a research protocol or scientific article.

DENT-HYG 5599 Research And Thesis Credits: 1-6
This course is designed to support the research process from protocol development through data collection and report of results. Research committee chairperson typically serves as the course director.

**Dentistry Professional (DENT)**

**Courses**

DENT 6305 Operative Dentistry I Lecture Credit: 1
An introduction to the prevention and principles of the restorative treatment of dental caries.

DENT 6305L Operative Dentistry I Laboratory Credits: 2
Restorative procedures discussed in DENT 6305 are performed on laboratory manikins.

DENT 6306 Transitions: An Introduction to the Profession and Practice of Dentistry Credits: 0.5
This course is the first in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the knowledge, skills and values of ethics, professionalism and practice management. The courses use self-assessment and strategic planning as foundations and lead the students through identification of personal and professional aspirations, and culminate in building each student’s competence in dental practice management.
DENT 6307 Transitions: Introduction to the Profession & Practice of Dentistry II Credits: 0.5
This course is the second in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course builds on strategic planning foundation to gain an understanding of personal financial management in the context of personal and professional goals in the field of dentistry.

DENT 6310C Patient Care I Credits: 3
This course introduces the dental student to the foundation knowledge and skills and values for the provision of oral health care. This includes infection control, cubicle set-up and breakdown, dental assisting, patient/operator positioning, patient vital signs, radiographic techniques, patient communication and basic concepts of oral health and disease. Students will assist third and fourth year students in various clinical areas after appropriate preparation, and will provide oral hygiene instruction for elementary age students.

DENT 6312 Dental Behavioral Science I Credits: 1-2
An introduction to the basic principles of behavioral science as they relate to oral self-care and professional practice. Topics include basic principles of human behavior, adherence, motivational interviewing, dental fears, chronic orofacial pain, and conflict management. Students will complete an in-depth motivational case report and a communication competency exam with selected patients.

DENT 6313 Applied Biochemistry Credits: 4
This is a course geared to the biomedical foundation knowledge of dental students. The course is composed of six sections focused on clinically important topic areas each cumulating with a clinical presentation. Course content will intentionally emphasize new knowledge areas in cancer, inflammation, genetic diseases, metabolic diseases, mineralized tissues in health and disease, oral health, hormone actin, and blood coagulation/ wound healing.

Prerequisites: an Undergraduate Biochemistry course.

DENT 6314C Patient Care II Credits: 2
This course builds on the skills introduced in DENT 6310C with a review and the continuation of the clinical rotations. In addition, students will learn the steps of a basic oral diagnosis, and will demonstrate their understanding with graded peer exams and by performing selected portions of a diagnosis on two clinic patients with the assistance of a 3rd or 4th year dental student.

DENT 6315C Patient Care III Credits: 3
This course introduces preventive theory necessary to provide patient care. Students are introduced to fundamental clinical procedures including dental deposits, gingival assessment, identification and classification of periodontal diseases, and periodontal probing. The information learned in this course continues in fall, second year (Patient Care IV) where student are introduced to basic periodontal instrumentation skills to assess and treat simple patients.

DENT 6316 Dental Morphology Credits: 3
This lecture/laboratory course introduces the student to the anatomy of the oral cavity and structures of the stomatognathic system. A thorough review of dental anatomy and dental terminology of the primary and permanent dentition will be presented. The students’ knowledge of dental morphology will be reinforced by constructing wax models of permanent dentition.

DENT 6317 Fundamentals of Occlusion and Fixed Prosthodontics Credits: 3
This lecture laboratory course will review the fundamental principles of dental occlusion, the anatomy and function of the stomatognathic system, and foundational knowledge of fixed prosthodontics.

DENT 6319 Ethics and Professionalism Credit: 1
An introduction to basic concepts of ethics and professionalism. Systems of ethical decision making are introduced and applied in the context of oral health care and interprofessional practice. Students will explore their own ethical values and apply this knowledge to issues in professional education.

DENT 6328 Clinical Decision Making in Dentistry Credits: 1-2
An experiential course that uses current controversies in to facilitate development of skills needed for making valid decision in clinical dentistry. Students will apply basic principles of database searching, research design and methodology to the critical analysis of contemporary dental literature. This one-hour course will: 1) Provide you with sufficient information to perform week on the portions of the national boards that deal with research design and methodology; and , 2) give you skills sufficient to search for, locate, and evaluate valid information related to clinical questions in contemporary dentistry.

DENT 6350 Introduction To The Histopathology Of Oral Tissues Credits: 2
A comparison of the microscopic anatomy of healthy and diseased oral tissues.

DENT 6352 Patient Care IV Credits: 1-3
This course is a continuation of DENT 6310C, DENT 6314C, and DENT 6315C which introduces preventive theory and the instrumentation skills necessary to provide patient care. Students are introduced to fundamental clinical procedures including plaque control, gingival assessment, and periodontal probing. Review of radiology, radiographic technique and interpretation, assisting skills, diagnosis and periodontal instrumentation will be implemented in this course.

DENT 6390 Dental Research Experience Credit: 1
This independent study course focuses upon experience gained in both an area of dental research as well as the process of research in working with an established dental researcher.
DENT 6402 Transitions: Introduction to the Profession and Practice of Dentistry III Credits: 0.5
This course is the third in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course builds on strategic planning foundation established in year one to gain an understanding planning for development of a dental practice.

DENT 6403 Transitions: Introduction to the Profession & Practice of Dentistry IV Credits: 0.5
This course is the fourth in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course continues the strategic planning framework as the dental practice business plan is developed. The focus for this course is on managing the finances of a dental practice.

DENT 6410 Operative Dentistry II Lecture Credit: 1
A continuation of DENT 6305. Principles of cavity preparation, materials and techniques are stressed.

DENT 6410L Operative Dentistry II Laboratory Credits: 2
A continuation of DENT 6305L. Restorative procedures are performed on laboratory manikins and extracted teeth.

DENT 6411 Operative Dentistry III Lecture Credit: 1
A continuation of DENT 6410.

DENT 6412 Introduction to Oral Surgery & Pain Management I Credit: 1
This course introduces students to foundational concepts of oral surgery and pain management. The course consists of lectures, demonstration and pre-clinical practice and simulation in the safe and effective use of local anesthetics in dentistry and basic intraoral surgical procedures. This course includes patient assessment for intraoral procedures, and instrumentation and techniques required to anesthetize a patient and extract teeth. Students will participate in practical experiences to begin to build skills in the necessary techniques to manage patient’s pain and perform basic surgical procedures.

DENT 6414 Pathology I Lecture Credits: 4
The general etiology of disease; circulatory and metabolic disorders; degenerative processes; inflammation; infection and immunity; tumors; and organ system pathology.

DENT 6415 Pathology II Credits: 2
A study of developmental defects, inflammatory diseases, and neoplasia of the oral region.

DENT 6416 Complete Removable Prosthodontics Credit: 1
This course will introduce the dental student to concepts and procedures involved in the rehabilitation of the completely edentulous patient. Information presented will include proper clinical examination techniques, an evaluation of the findings and their impact on treatment and treatment options. The student will become familiar with the clinical steps involved in the fabrication of complete dentures and the rationale supporting these procedures. Laboratory steps as they relate to clinical treatment procedures will also be discussed. There will be additional information presented regarding single complete dentures, immediate dentures, overdentures, implant-retained complete dentures, and rebasing and relining techniques.

DENT 6416L Complete Removable Prosthodontics I Laboratory Credits: 2
This course will introduce the student to the clinical and laboratory steps involved in the fabrication of complete dentures. Students will learn how to manipulate the materials involved as well as indications for their usage. The course will be structured to closely resemble the clinical experience in concept and techniques where feasible. The goal is to teach the skills necessary to manage edentulous patients and also to teach in detail the entire process of complete denture fabrication. This will enhance overall dental skills and provide a knowledge base with which to critically evaluate laboratory procedures and results. This laboratory course provides the student the opportunity to acquire the foundational skills, which must be mastered before clinical competency, can be attained. A goal of the course is to provide the opportunity for the student to acquire the hand/eye skills, which are necessary to treat the edentulous patient in a clinical setting.

DENT 6417 Removable Partial Prosthodontics Credit: 1
The study of the terminology, design, theory, and basic procedures in removable partial denture construction in addition to diagnosis and treatment planning will be stressed through the lectures.

DENT 6417L Removable Partial Prosthodontics Laboratory Credits: 2
In the laboratory the students will learn to plan, design, and prepare the mouth for a prosthesis. They will demonstrate understanding of concepts and methods by applying them to the solution of problems. The student will: develop critical thinking and problem solving related to diagnosis, planning and treatment; make decisions based on current empirical and published evidence; make custom trays for final impression, and record bases and wax rims for recording jaw relationship.

DENT 6420 Periodontics I Credits: 2
It is the scope of this course to introduce the basic disease mechanisms involved in the evolution of the inflammatory periodontal lesion; i.e., the interaction of the host tissues with the oral microbial flora. The course will cover the entire range of possible periodontal diseases, ranging from simple marginal gingivitis to AIDS related necrotizing ulcerative periodontitis. Further, the course will continually reinforce the science of periodontology and its overwhelming relationship to the clinical practice of periodontics.

DENT 6422 Fixed Prosthodontics I Lecture Credit: 1
This course is designed to provide the foundation knowledge needed by the novice to formulate clinical judgments in the areas of treatment planning, tooth preparation, and the selection and use of dental biomaterials for the restoration of single teeth with fixed prosthodontic restorations. The topics covered also include provisional restorations, impressions materials and technique, dental cements, and laboratory aspects involved in the fabrication of cast gold crowns.
DENT 6422L Fixed Prosthodontics I Laboratory Credits: 2
The second course in the fixed prosthodontic curriculum is designed to provide foundation knowledge needed by the novice to formulate clinical judgments in the areas of treatment planning, tooth preparation, and the selection and use of dental biomaterials for the restoration of missing teeth with fixed partial dentures and implants.

DENT 6423 Fixed Prosthodontics II Lecture Credit: 1
The second course in the fixed prosthodontic curriculum is designed to provide foundation knowledge needed by the novice to formulate clinical judgments in the areas of treatment planning, tooth preparation, and the selection and use of dental biomaterials for the restoration of missing teeth with fixed partial dentures and implants.

DENT 6423L Fixed Prosthodontics II Laboratory Credits: 2
The second laboratory course in fixed prosthodontics is focused on the replacement of missing teeth with fixed partial dentures and implant restoration. Projects build the skills to begin development of clinical competence in fixed partial dentures and implant restorations.

DENT 6424 Dental Management of the Medically Complex Patient Credits: 2
This course focuses on the understanding of medical conditions and compromised states that patients present with, enabling the clinician to develop dental treatment plans that are safe and compatible with their medical status.

DENT 6426 Oral Radiology Lecture Credits: 2
Radiation physics, radiation biology, quality assurance, imaging principles, radiation hygiene, radiographic interpretation and techniques of intra-oral survey are presented.

DENT 6429 Dental Behavioral Science II Credit: 1
This course builds upon the foundational material with a focus on dealing with challenging patients and managing professional stress. Students will complete an in-depth anxiety management project and communication competency exam with selected patients.

DENT 6431 Pediatric Dentistry I Lecture Credit: 1
The overall goal of this didactic course is to provide the student with the fundamental knowledge necessary to provide comprehensive dental care to pediatric patients. In addition, this course strives to develop an attitude towards learning such that the student will seek opportunities to further his/her knowledge and skills in pediatric dentistry subsequent to graduation. Finally, this course is intended to sensitize students to their responsibility as health care providers for the children in their community.

DENT 6435 Endodontics I Lecture Credit: 1
An introductory course in endodontics emphasizing pulp and periapical biology and pathology. Extra emphasis will be placed on endodontic diagnosis of non-odontogenic facial pain, problems with anesthesia in endodontics and treatment planning.

DENT 6436 Orthodontics: Growth And Development Credit: 1
Certain malocclusions and dental deformities can occur due variations in growth and normal developmental process. In order to treat and understand these problems, an in-depth and thorough understanding of craniofacial growth and development is necessary. Understanding how and when the face and head is actively growing will enable the clinician to redirect facial growth to reduce the severity of forming skeletal/dental malocclusions. Since orthodontic treatment may involve the modification and/or manipulation of skeletal growth, it is important not only to understand dental development but also physical, physiologic and psychosocial development. This course is designed to address these needs.

DENT 6439 Medical Emergencies in the Dental Office Credit: 1
The purpose of this course is to comprehensively review the management of common medical emergency situations that a dentist is likely to encounter in the dental office. In this course, the students will gain a thorough understanding of the preventive measures and appropriate response to medical emergencies including the appropriate use of the Emergency Medical System. Moreover, pertinent information regarding the patho-physiology associate with common medical emergencies will be discussed.

DENT 6440 Introduction to Oral Surgery & Pain Management II Credit: 1
This course builds on the fundamental concepts in oral surgery and pain management presented in Dent 6412 to prepare students for patient care in oral surgery and management of pain for provision of dental care. The lectures will focus on treatment needs of the medically compromised surgical patient, ability to safely and adequately deliver local anesthesia, non-pharmaceutical management of pain as well as OTC and prescription medications for pain management. The course will also focus on appropriate case selection for a general dentist. In the pre-clinical lab portion of the course, students will participate in exodontia simulation and local anesthesia administration.

DENT 6442 Endodontics II Lecture Credit: 1
A continuation of the study of endodontics emphasizing non-surgical endodontics, surgical endodontics and post-endodontic treatment.

DENT 6442L Endodontics Laboratory Credits: 2
The preparation and filling of root canals of extracted teeth in the laboratory setting.

DENT 6460C Review of Pre-Clinical Dentistry Credits: 0.5
A combination of online lectures, selected readings and independent study designed to reinforce and integrate concepts contained in the pre-clinical dental curriculum.
The purpose of this course is to introduce the student to the clinical environment and to familiarize him/her with comprehensive patient care. In addition, it allows the student to develop and interpret basic diagnostic aids that enable him/her to arrive at a diagnosis and treatment outline, the beginning steps of comprehensive care. Patient care is provided following the outlined treatment plan. The student will apply the principles/concepts of patient care. Students begin treatment of a "family" of patients under faculty supervision.

Students prepare to develop and present oral reports typically given at professional meetings such as case presentations, table clinics, research reports or presentations of new techniques (such as in Table Clinic requirements or Senior Grand Rounds). This course will expand on the student’s basic knowledge of critical review of scientific literature and information literacy. Cases and problems in dentistry and oral health will be the context for identification and application of current valid scientific literature. This course seeks to foster an attitude of critical analysis and commitment to lifelong learning.

Dental student care courses foster development of skills through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

Continued study of pathological conditions of the oral region with emphasis on clinical signs and symptoms.

The overall goal of this course is to help the pre-doctoral students to recognize periodontal disease and treatment plan the needed periodontal therapy. Specific goals are to enhance the student’s knowledge of the surgical aspects of periodontal therapy, and the relationship of periodontal disease and its treatment to the overall dental treatment plan.

This course is the fifth course in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course continues the strategic planning framework and focuses on practice building strategies.

This course is the sixth course in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course continues with the strategic planning framework and focuses on the skills, knowledge and attitudes necessary for the day to day leadership of a dental practice.

This course is a continuation of the principles and techniques in Oral Surgery Pain Management II, but now relates to more advanced forms of oral surgical patient care. The areas to be covered are the diagnosis, treatment planning and management of impacted teeth, surgical complications, pre-prosthetic surgery, maxillary sinus in disease/dentoalveolar surgery, odontogenic infections, odontogenic cysts and odontogenic tumors afflicting the maxillofacial structures.

Clinical application of those principles taught in preceding terms.

This course is a continuation of DENT 6521 Oral Surgery III. This course is structured to help the student acquire a basic understanding of the advanced aspects of the specialty of Oral and Maxillofacial Surgery. This includes the process of diagnosis, surgical and adjunctive management of diseases, deformities and malformations of the oral cavity, jaws and associate structures. Moreover, this course also covered principles and techniques of sedation used in oral and maxillofacial surgery.

This course expands upon the student doctor's knowledge of oral medicine, diagnosis, and pathology, and its interrelationship at times with systemic disease. Dental management, treatment and the appropriate use of consultations and referrals are emphasized.

Orthodontics is a course designed to introduce the student to the field of orthodontics. The lecture will introduce the student to basic orthodontic terminology, description, diagnosis, and mechanotherapy. This course will prepare the student for the clinical treatment of patients needing limited tooth movement.
DENT 6526L Orthodontics I Laboratory Credits: 2
This is a course designed to introduce the student to the field of orthodontics. The laboratory enables the student to master the materials of orthodontics in order to complete diagnostic records, to construct fixed and removable appliances, and to be familiar with tooth movement mechanics. This course will prepare the student for clinical treatment of patients needing limited tooth movement.

DENT 6527 Pharmacology and Therapeutics I Credits: 2
An introduction into the mechanisms of action, pharmacodynamics and relevant pharmacokinetics for drugs prescribed and used by patients seen by the dentist. The course is administered through the Blackboard Course Management System and will involve live and/or recorded lectures directed at "mastery learning" of introductory pharmacology where students receive objectives, attend class, and complete reading assignments expected to assist in achieving a high level of mastery.

DENT 6531C Oral Diagnosis Clinical I Credits: 1-2
Clinical application of diagnostic principles. Students will complete a diagnostic competency examination on a selected patient.

DENT 6534 Advanced Prosthodontics Credit: 1
This course reviews advanced principals in Fixed and Removable Prosthodontics. Using evidenced based concepts, information will be presented to aid the student clinician make well informed clinical choices which will help prepare them for the use of prosthodontic techniques in the practice of general dentistry. A variety of materials, devices, and concepts will be presented. Making intelligent choices in the selection and use of these restorative materials and concepts will be a focus.

DENT 6537 Oral Oncology Credits: 0.5
A lecture course on oral oncology will deal with the biologic aspects of cancer; the detection of oral cancer and the different modalities of treatment of cancer; the dental aspects both from surgical reconstruction and prosthetic reconstruction following cancer surgery; and management of the patient prior to, during, and following radiation therapy to the head and neck and during chemotherapy for systemic cancer.

DENT 6538 Orthodontics II Credit: 1
This course will present a variety of topics related to orthodontics, such as: normal development, abnormal occlusal deviations during the developing permanent dentition, diagnosis and treatment planning of orthodontic problems, biomechanical principles in orthodontics, adolescent vs. adult orthodontics, peridontal health during orthodontic treatment, complications associated with orthodontic treatment and controversial aspect of orthodontics. You should also be able to recognize which kind of cases exceed the scope of limited treatment and may require intervention by a specialist.

DENT 6542C Operative Dentistry Clinical I Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6551CR Oral Surgery Clinical Credits: 2
This is a course for application of principles taught in didactic courses (DENT 6412, DENT 6439, DENT 6440, DENT 6521, DENT 6522, and DENT 6610) and the Oral Surgery Rotations. Oral Surgery Clinical is designed to prepare the dental student with the necessary didactic and clinical skills to properly evaluate patients and provide Oral Surgery care in a safe effective and caring manner and to evaluate competency in two areas: managing medical emergencies and oral surgical skills expected of a general dentist.

DENT 6553 Radiographic Interpretation Credit: 1
This is a comprehensive multidisciplinary course in radiologic interpretation of normal anatomy, anomalies, dental caries, periodontal disease, periapical pathology and infections of the maxilla and mandible.

DENT 6559 Diagnosis and Management of Orofacial Pain Credit: 1
Essential conceptual, clinical and technical information and skills necessary in the diagnosis and treatment of Orofacial Pain States. Diagnostic protocols and radiographic procedures and their integration as it relates to painful head and neck conditions are presented in depth. Differential diagnosis and special diagnostic techniques are also addressed. Behavioral factors associated with the development of chronic pain and complicating the management of pain states are identified and discussed.

DENT 6562C Removable Prosthodontics Clinical Credit: 1
This course reflects the clinical aspects of Removable Prosthodontics. The application of didactic learning and foundational skills is practiced and evaluated. By treating multiple and varied patients needing complete dentures and those needing removable partial dentures, the student should become competent to diagnose and treat the routine and uncomplicated edentulous and partially edentulous patient with removable prostheses.

DENT 6564 Advanced Prosthodontics Credit: 1
This course will provide the background necessary for the dentist to become knowledgeable about the drugs their patients may be taking and their related medical conditions. Lecture topics include the diseases and medical conditions commonly seen in dental patients on an outpatient basis. The course presents the effects, mechanisms of action, dosage forms, and relevant pharmacokinetics for the drugs used in the management of these diseases. The course will cover the important side-effects of precautions of drugs that are pertinent to the dental patient for their safe management.

DENT 6566 Bridge Course Credits: 2
This course is designed as a lecture and clinical course to provide a transition into the clinical phase of the dental curriculum for the third year dental student.

DENT 6591C Professional Development I Credits: 1-2
Clinical application of those principles taught in preceding terms.
DENT 6592C Professional Development II Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6593C Professional Development III Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6595 Introduction To Implant Dentistry Credit: 1
To provide the undergraduate student with a solid background into the role of implant dentistry in their profession. Advances in technique and materials which are responsible for improved predictability will be presented. Emphasis will be on patient selection, treatment planning and basic restorative techniques. The student will be able to initiate uncomplicated dental implant procedures with this information and will be prepared to enter into more advanced continuing education and graduate programs in this subject.

DENT 6600 Review Of Clinical Dentistry Credits: 1-2
A summative review of the basic areas of clinical dentistry.

DENT 6601C Endodontics Clinical Credits: 1-2
Clinical application of principles taught in preceding terms.

DENT 6602 Grand Rounds II Credit: 1
This course is a continuation of Grand Rounds I and its aim is similar to Grand Rounds I: expand on the dental student's basic knowledge of critical review of scientific literature and information literacy. Students will present a Table Clinic at Midwest Dental Conference and prepare a proposal for their senior Grand Rounds presentation.

DENT 6603 Grand Rounds III Credit: 1
The fourth year Grand Round course is an independent study courses designed to develop the evidence-based research skills required to keep abreast of current concepts in dentistry; develop case documentation skills necessary for continued professional development, and develop professional public speaking skills.

DENT 6604 Grand Rounds IV Credit: 1
The fourth year Grand Round course is an independent study courses designed to develop the evidence-based research skills required to keep abreast of current concepts in dentistry; develop case documentation skills necessary for continued professional development, and develop professional public speaking skills.

DENT 6605 Review Of Clinical Dentistry II Credits: 0.5
A review of foundation knowledge for clinical dentistry.

DENT 6606C Pediatric Dentistry Clinical I Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6607C Pediatric Dentistry Clinical II Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6608C Pediatric Dentistry Clinical III Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6609C Comprehensive Patient Care III Credits: 1-10
Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist. This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skills through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6610C Comprehensive Patient Care Iv Credits: 1-10
Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist. This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skill through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6611C Fixed Prosthodontics Clinical I Credits: 1-2
Clinical application of principles taught in preceding terms.

DENT 6613 Periodontal Treatment Planning Credit: 1

DENT 6614 Dentistry For The Special Patient Credits: 1-2
The purpose of this course is to acquaint the student with the dental treatment of three populations of patients who you may encounter in your dental career (and often have trouble finding adequate care). They include patients who are developmentally disabled, the elderly, and the medically-compromised. The course will present management techniques for in-office treatment and appropriate referral of those patients best treated in another setting. This course builds upon the skills and knowledge gained in previous courses in many disciplines, to provide an interdisciplinary experience with special patient populations. A required rotation at the Regional Center for the Developmentally Disabled gives practical experience to topics covered in lecture.
DENT 6614C Comprehensive Patient Care V Credits: 1-10
Third and fourth year dental students will spend the majority of their curriculum time mastering the competencies required of a general dentist. This includes the ability to complete a dental diagnosis and treatment plan, present the case to the patient, implement and evaluate the dental care delivered. Comprehensive patient care courses foster development of skill through daily evaluation in technique, patient management, and diagnostic ability, supplemented by periodic mentor and team faculty evaluation. Semester evaluation will also take into account clinical productivity using a time unit system.

DENT 6615 Transitions: Introduction to the Profession & Practice of Dentistry VII Credit: 1
This is the seventh course in a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course continues with the strategic planning framework and focuses on the development of a dental practice business plan.

DENT 6616 Transitions: Introduction to the Profession and Practice of Dentistry VIII Credits: 0.5
This course is a continuation of a sequence of courses throughout the dental education curriculum designed to prepare the graduate dentist in the skills and values of professionalism, practice management and ethics. This course allows fourth year dental students to apply concepts and principles presented in the previous practice management courses in the Innovation Center and in small group seminars. A series of small group seminars will allow for in-depth discussion of professional issues.

DENT 6617 Pediatric Dentistry Seminar Credits: 0.5
This course is designed to allow fourth year students to build on the concepts presented in DENT 6431. Using a seminar format, students will review pediatric dentistry concepts with emphasis on clinical application.

DENT 6621C Periodontics Clinical II Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6625 Oral Surgery Clinical II Credit: 1
Oral Surgery II is a continuation of Oral Surgery I and is designed to certify students’ competency in oral surgery, including managing patient pain and anxiety, i.e. nitrous oxide-oxygen sedation

DENT 6626 Clinical Treatment Planning Credit: 1
This course builds on the didactic courses and clinical experiences in treatment planning. Each student will demonstrate competency in comprehensive treatment planning to earn credit in the course.

DENT 6633 Introduction To Dental Public Health Credit: 1
Discussion of contemporary issues in community health and community oral health with emphasis on preparing students for their roles as professional members of their communities.

DENT 6634 Community-Based Dental Education (CODE) I Credit: 1
The purpose of this course is to expose third and forth year dental students to alternative methods of dental care delivery to populations at high risk for dental disease. Specifically the course places junior and senior students in an existing network of community health centers and rural outreach sites

DENT 6635 Community-Based Dental Education (CODE) II Credit: 1
Prerequisites: DENT 6634, Completion of Third Year.

DENT 6636C Oral Radiology Clinical Credit: 1
Clinical application of those principles taught in preceding terms with emphasis on use of a variety of film holding devices. Radiographic quality assurance and darkroom maintenance will be reviewed during this course.

DENT 6642C Operative Dentistry Clinical II Credits: 1-2
Clinical application of those principles taught in preceding terms.

DENT 6650 Applied Ethics Credits: 0.5
Four or five case studies will be used during seminars. Basic ethical principles from DENT 6306 will be applied to the case studies. Two of the cases will involve ethical issues, and one of the cases will add community dentistry issues. Other cases will be used as generated or suggested by each seminar group.

DENT 6656C Orthodontic Clinical I Credit: 1
The purpose of this course is to allow each student to develop the skills, knowledge and values to diagnose potential or actual malocclusions and manage patient who need orthodontic intervention.

DENT 6690 Independent Study in Dentistry Credits: 1-6
This course provides students the opportunity to undertake independent study projects in specific areas of dentistry. Course may be repeated.

DENT 6691C Professional Development IV Credits: 1-3
Clinical application of those principles taught in preceding terms.

DENT 6692C Professional Development V Credits: 1-2
Clinical application of those principles taught in preceding terms.

Economics (ECON)
Courses

ECON 5501 Advanced Macroeconomic Analysis Credits: 3
Basic theoretical concepts of national income and statistical tools utilized in its measurement. Aggregate demand and supply as problems of economic dynamics. The course includes examination of the primary competing theoretical approaches: neoclassical, Keynesian, new classical, real business cycle, new Keynesian supply side, Austrian, and Post Keynesian. Topics covered include growth, money, labor markets consumption, investment, expectations formation, role of time and uncertainty, equilibrium and disequilibrium analysis, exchanges rates, international trade, and optimal currency areas. Policy implications of the various macroeconomic theories are explored.

Prerequisites: ECON 301 and ECON 302 (or equivalent).

ECON 5502 Advanced Microeconomic Analysis Credits: 3
The course first provides a critical survey of neoclassical microeconomic theory, including methodology, demand theory, production and cost theory, theory of competitive and non-competitive markets, distribution, welfare, and general equilibrium. It then introduces heterodox microeconomic theory, covering its historical origins, methodology, structural organization of economic activity, in-put-output models, flow of funds, agency and institutions, and the business enterprise.

Prerequisites: ECON 302, ECON 5521.

ECON 5503 Advanced Heterodox Economics Credits: 3
The course examines various theoretical approaches and topics, both historically and currently, that constitute heterodox economics. In particular the course deals in depth with the mathematical and economic properties of heterodox production and price models. After reviewing the mathematics of linear production-price models, the module will examine Leontief, Sraffian, and other heterodox price and production models.

Prerequisites: ECON 301, ECON 302, and MATH 210.

ECON 5504R American Economic History Since 1865 Credits: 3
The course deals with the emergence of Industrial America since 1865. It will cover the rise to dominance of the large modern corporation, with the problem of economic and social instability and stability, with the rise of trade associations, cartels, and government regulation in an unstable economy, and with the evolution of American economic policy and national economic planning.

Cross Listings: HISTORY 5566R.

ECON 5504RR American Labor History Credits: 3
This course examines the history of work and the working class in the U.S. from 1750 to the present. We will focus on the transformation of the workplace, the rise of the union movement, the nature of cultural and political organizations, workers' relationships with other social groups, and the role played by gender, race, and ethnicity in uniting or dividing the working class.

Prerequisites: Graduate standing.

Cross Listings: HISTORY 5566RR.

ECON 5505 Advanced Comparative Economic Systems Credits: 3
Contents vary depending upon the instructor's design for the course.

Prerequisites: ECON 301, ECON 302.

ECON 5506 Advanced History Of Economic Thought Credits: 3
This seminar uses issues raised in the reading of two 'classic' primary texts, Adam Smith's An Inquiry into the Nature and Causes of the Wealth of Nations (1776) and John Maynard Keynes's The General Theory of Employment, Interest and Money (1936), as points of departure for the examination of a series of topics in the history and development of economics and alternative paradigms in the discipline. These investigations will lead us to the study of a number of other seminal articles, representing alternative approaches in the field. Topics include competition, accumulation, path dependence and endogenous technical change, cumulative causation, the laws of return, money and credit, capital theory, and more.

Prerequisites: ECON 301, ECON 302.

ECON 5508 Controversial Issues In Recent Economic Literature Credits: 3
This course will focus on theoretical and policy-oriented controversies that have occurred in economic in the 20th century. The type of controversies covered include, but are not restricted to, money, unemployment, business cycles and economic growth, pricing and administered prices, capital controversy, labor theory of value controversy, and free trade vs. protectionism. While the course concentrates on recent debates, it identifies the origins of the modern disputes in earlier controversies. For each controversy, its real world importance and policy implications are discussed.

ECON 5511 Geographic Information Systems (GIS) for Urban Economic Development Credits: 3
An advanced quantitative methods course featuring the application of Geographic Information Systems (GIS) to the problems of urban economic development. Surveys federal, state, and local geospatial and attribute data resources, including Census Bureau TIGER files, and provides training in geodatabase construction and management. Geospatial processing, editing, and address geocoding are also covered. Formal analytical methods (cartographic aesthetics and visualization, spatial analysis, exploratory data analysis, network analysis, crime analysis, etc.) are all applied in the context of the problematics of urban and regional economic development.

Prerequisites: GEOG 203 or UPD 203.
ECON 5512 Advanced Economic Development Credits: 3
Contents vary depending upon the instructor's design.
Prerequisites: ECON 301, ECON 302.

ECON 5513 Economic Cycles And Growth Credits: 3
A critical review and evaluation of economic analysis and the forces of economic fluctuation and growth; and analysis of statics, dynamics, monopolistic competition, the role of the interrelationships of the market structure and other institutional forces as they relate to fluctuations and growth. An emphasis will be made on the critical evaluation of recent literature in the field of economic analysis related to fluctuations, growth, statics, dynamics, market structure and the reinterpretation of economic fluctuations, growth, forecasting and overall economic behavior. An analysis of the technological, monetary, and fiscal policy implied by economic trends and growth will also be discussed.
Prerequisites: ECON 5501 or equivalent.

ECON 5516L Law And Economics Credits: 3
This course will examine the use of economic principles in the analysis and applications of public and private law. Emphasis will be given to the efficiencies of laws in meeting social objectives, how laws can be modified to become more economically efficient, and the uses of economics in the actual practice of the law. Issues covered will include proofs of liability in antitrust, contracts and employment law using statistical and economic analysis, and the calculation of economic damages in commercial, employment and personal injury/death litigation. Graduate students will be assigned a specific research paper.
Prerequisites: ECON 302.

ECON 5521 Mathematical Economics Credits: 3
An introduction to mathematical methods as applied to the questions addressed by economists. The principal methods to be applied are matrix algebra and differential calculus in the context of optimization. Other topics may include integral calculus, differential equations, difference equations or linear and nonlinear programming.
Prerequisites: ECON 301, ECON 302 and MATH 110 (or equivalent).

ECON 5525 Econometric Methods Credits: 3
Continuation of ECON 425. The major problems encountered in building and testing economic models are treated and alternative solutions to these problems are discussed. Major topics include corrections for heteroscedasticity and autocorrelation, maximum likelihood and BLUE estimation, simultaneous equations methods, probit and logit analysis and distributed lags. Other topics may include ARIMA or other series analytic methods, three stage least squares and dynamic multipliers or simulation. Work with econometric software is stressed. No programming experience necessary.
Prerequisites: ECON 425 (or equivalent) and ECON 5521.

ECON 5529 Readings In Quantitative Economics Credits: 3
Readings from the economic literature which stress advanced mathematical or econometric tools. A general subject matter is selected by the student with the consent of the instructor.
Prerequisites: ECON 5521, ECON 5525.

ECON 5531 Monetary Theory And Policy Credits: 3
A study of the nature and functions of money and the financial system, with emphasis on monetary theory and its application to current banking and financial problems; recent contributions to monetary theory and current literature.
Prerequisites: ECON 301.

ECON 5535 Theory Of Public Finance Credits: 3
An inquiry into the scope and nature of economics with emphasis on the nature of the public sector including a brief study of welfare criteria along with the study of ability to pay, benefit theory of taxation, and expenditure theories.

ECON 5537 State And Local Government Finance Credits: 3
This course investigates the role, problems and relative importance of municipal governments in the United States. Such areas as the demand for public services, tax and expenditure policies, and intergovernmental fiscal relations will be explored in detail. Case studies of state and local governments will be introduced to emphasize the problems and proposed solutions arising in modern municipal governments.
Prerequisites: ECON 302.

ECON 5538 Economic Policy Credits: 3
Analysis of the confluence of political and economic behavior, the economics of collective action.
Prerequisites: ECON 301 and ECON 302.

ECON 5540 Advanced International Trade Credits: 3
This course emphasizes the global allocation of resources and distribution of income under various commodity market conditions and government trade policies. Major topics include: comparative advantage; terms of trade; the distribution of gains and losses from trade; perfect vs. imperfect competition; tariffs, quotas and other barriers to trade; exchange rates and the balance of payments; preferential trading arrangements; international factor movements and multinational corporations.
Prerequisites: ECON 302 (or equivalent); graduate standing.
ECON 5542 Advanced International Finance Credits: 3
This course emphasizes the global activity and balance of payments implications of government taxation, expenditure and monetary policies under various capital market conditions. Major topics include: exchange rates and the balance of payments; national income determination in an open economy; integrated and non-integrated capital markets; economic growth, stabilization policies and the quest for global economic stability.

ECON 5548 Advanced Socialist Economic Systems Credits: 3
The course will deal with the theoretical analysis of socialist economic theory, Marxian and non-Marxian, and/or of socialist economics systems such as those of Eastern Europe, the Chinese mainland and elsewhere. The emphasis of the course will vary depending upon the instructor's design for the course.
Prerequisites: ECON 301 and ECON 302.

ECON 5550 Regional Economics Credits: 3
The economics of spatial relations, emphasizing basic location and land utilization theory and the role of transport will be considered at the micro-level. Keynesian and neoclassical growth theories and contemporary policy approaches to regional growth and decline are analyzed.
Prerequisites: ECON 302.

ECON 5551 Advanced Institutional Theory Credits: 3
Evolution, organization and allocation functions of the modern industrial economy. Contributions and limitations of conventional economic concepts. Philosophical and theoretical interpretations of the economy in light of modern developments in philosophy and social science.
Prerequisites: ECON 451.

ECON 5558 Advanced Urban Economics Credits: 3
The study of the city as a dynamic system of interrelated and interdependent markets. Significant markets in cities include land, housing, labor, transportation and public services.

ECON 5560 Industrial Organization Credits: 3
Prerequisites: ECON 301, ECON 302.

ECON 5575 Labor Economics, Institutions and Policies Credits: 3
This course focuses on the economic analysis of labor market phenomena in the context of historical-institutional development and on labor market policies. This course is offered winter semester only.
Prerequisites: ECON 201 and ECON 202.

ECON 5583 Racial Inequality & Public Policy Credits: 3
This course will provoke open debate and discourse about public policy responses to racial inequality. The emphasis is on stimulating participants to think about and to analyze critically the range of strategies offered for reducing racism and racial economic inequality.

ECON 5587 Human Resource Economics Credits: 3
An analysis of the factors determining the productivity of human resource: education, nutrition, job training and work environment. An analysis of work patterns, wage patterns, and the impact of automation. Graduate students will be assigned a specific research paper on a topic to be decided with the instructor.
Prerequisites: ECON 302.

Cross Listings: ECON 487.

ECON 5588 Advanced Political Economy Credits: 3
This course gives students a comprehensive introduction to the history and modern practice of political economy, with particular emphasis on Marxian and Classical political economy. Topics include: value theory, class theory, economic reproduction, economic crisis, the theory of history, and methodology.

ECON 5589 Graduate Seminar In Labor Economics Credits: 3
Content of seminar will vary from semester to semester depending upon the instructor's design for the course.
Prerequisites: ECON 486.

ECON 5590 Special Topics Credits: 1-3
Selected topics in theoretical and applied economics.
ECON 5590A Special Topics Credits: 1-3
ECON 5590B Special Topics Credits: 1-3
ECON 5590C Special Topics Credits: 1-3
ECON 5591 Research And Planning Seminar Credits: 3
The objective of this research seminar is to apply the quantitative techniques and theoretical constructs of economics to an urban-regional problem. Students are required to formulate and evaluate present economic models, and then complete a research project.
**Prerequisites:** ECON 5502 and ECON 5521.

ECON 5599 Research And Thesis Credits: 1-6
Directed specialized research.

ECON 5601 Colloquium In Advanced Macroeconomics Credits: 3
The course will deal with analyses of topics in Macroeconomic analysis and Macroeconomic policies and investigation of current literature in divers areas of Macroeconomic analysis. A written report(s) will be made upon the selected assignment(s).
**Prerequisites:** ECON 5501 or equivalent.

ECON 5602 Colloquium In Advanced Microeconomics Credits: 3
As a continuation of Economics 502, this course deals with the business enterprises-including production, costs, pricing, and investment-markets, market demand, market governance, general price-quantity models of the economy, microfoundations of the heterodox macroeconomics, and social welfare.
**Prerequisites:** ECON 5502.

ECON 5606 Colloquium on Advanced History of Economic Thought Credits: 3
The course examines advanced topics in history of economic thought.
**Prerequisites:** ECON 5506.

ECON 5608 Topics In Economic Theory Credits: 3
This course deals with advanced topics in Institutionalism, Post Keynesian, and other heterodox economic theory. May be repeated with different topic.

ECON 5616 History Of Economics In The 20th Century Credits: 3
The history of 20th century economics is concerned with a number of interdependent issues, including the institutional organization of economics at universities; the historical development of the structures and social networks that make-up the economic paradigms of neoclassical economics, Marxian economics, Post Keynesian economics, and other heterodox economics; and the role of institutional and state power to maintain the dominance of the neoclassical paradigm. The aim of the course is to introduce students to this institutional/organizational history.

ECON 5625 Colloquium In Econometrics Credits: 3
This course treats advanced topics in econometrics such as non-linear estimation techniques, model development, simultaneous equation estimation techniques, and simulation. Topics are developed from theoretical and application perspectives. Familiarity with personal computer is necessary.
**Prerequisites:** ECON 5501, ECON 5502, ECON 5521, ECON 5525, or equivalents.

ECON 5631 Colloquium on Monetary Theory and Policy Credits: 3
This course explores advanced monetary theory and policy, examining recent debates and current research practices, as well as classic articles on monetary theory and policy.
**Prerequisites:** ECON 5601 or ECON 5501 and ECON 5531.

ECON 5645 Financial Macroeconomics Credits: 3
This course will introduce the student to the central role of financial analysis in macroeconomic analysis and to theories of macroeconomics instability based on the integration of finance and macroeconomics. It will examine modern finance theory and modern approaches to financial analysis, paying particular attention to the contributions made by Fisher and Keynes.

ECON 5660 Evolution Of American Industrial Society Credits: 3
Drawing on economic and organizational theory, the course will concentrate on the evolution of American industrial technology, the American business enterprise, and the organization of American industries and markets since 1870.

ECON 5665 Colloquium In Advanced Health Economics Credits: 3
This course is designed as a seminar with a special emphasis on analysis of econometric methods to assess issues in health care. The topics are developed from a theoretical and applied perspective. Familiarity with personal computers is necessary. Special emphasis will be given in the selection of course topics to the interests and backgrounds of participants.
**Prerequisites:** ECON 5521, ECON 5525, ECON 5565, or equivalents.
ECON 5680 Teaching Methods And Course Design Credits: 3
This course is designed to prepare students for the challenge of teaching economics. Students will be taught how to write a syllabus; how to prepare for class; how to plan learning activities; how to become skillful in leading discussion; how to present an effective lecture; how to test and assess student learning; how to develop effective group projects; how to motivate their students for lifelong learning. Students will be required to design a course to be taught at the 200-, 300 or 400-level. The student will prepare a complete set of course materials, including a lecture outline, a list of require readings, useful handouts, course materials, including a lecture outline, a list of require readings, useful handouts, course assignments, exams, etc. The course should incorporate an interdisciplinary approach and should emphasize an “active learning” component, designed to promote a “rich learning experience.” The student will work closely with an appropriate member of the faculty.
Prerequisites: Must have completed/passed Comprehensive Exams.

ECON 5688 Colloquium On Political Economy Credits: 3
This course is designed as a seminar and will take into account theory and policy analysis from alternative perspectives. The topics covered will include philosophical foundations of contemporary theory and policy, the organization of production information and finance, resource and environment, wealth and income distribution, public and private policy and planning. Stress is placed on contemporary research and students are expected to become involved in research projects.

ECON 5690 Special Doctoral Readings In Economics Credits: 1-3
Special research topics in Economics at the Doctoral level.

ECON 5699 Doctoral Dissertation Credits: 1-12
Directed selected research for Economics in the interdisciplinary doctoral program.

ECON 5899 Required Graduate Enrollment Credit: 1

Education (EDUC)

Courses
EDUC 5428 Cultural Diversity And American Education Credits: 3
An examination of educational needs and strategies in a culturally diverse society based on a study of several major ethnic and nationality groups in America from historical, anthropological and sociological perspectives. This course may be team-taught.
EDUC 54896CI Special Topics Credits: 1-6
Special Topics
EDUC 5489AR Special Topics Credits: 1-6
Special Topics
EDUC 5489CA Special Topics Credits: 1-3
Special Topics
EDUC 5489LI Special Topics Credits: 1-6
Special Topics
EDUC 5489LM Special Topics Credits: 1-6
Special Topics
EDUC 5489LT Special Topics Credits: 1-6
Special Topics
EDUC 5489MS Special Topics Credits: 1-6
Special Topics
EDUC 5552 Advanced Diagnostic And Treatment Procedures In Reading Credits: 3
Significant aspects of reading disability; diagnostic testing; case report writing; interpretation of test data; implications of test data for recommendations.
Prerequisites: EDRD 5510.
Co-requisites: EDRD 5520.
EDUC 5589AA Special Topics in Education Credits: 1-6
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed on the semester bulletin.
EDUC 5589AQ Special Topics In Education Credits: 1-6
EDUC 5589B Special Topics In Education Credits: 1-6
EDUC 5589EP Special Topics In Education Credits: 1-6
Special Topics In Education
EDUC 5589ES Special Topics in Education Credits: 1-6
EDUC 5589IT Special Topics in Education Credits: 1-6
EDUC 5589LR Special Topics in Education Credits: 1-6
EDUC 5589MS Special Topics in Education Credits: 1-6
EDUC 5589MT Special Topics in Education Credits: 1-6
EDUC 5589Q Special Topics In Education Credits: 1-6
EDUC 5589R Special Topics in Education Credits: 1-6
EDUC 5589RD Special Topics in Education Credits: 1-6
EDUC 5589RH Special Topics In Education Credits: 1-6
EDUC 5589TL Special Topics in Education Credits: 1-6
EDUC 5589WP Special Topics in Education Credits: 1-6
EDUC 5598 Individual Studies Credits: 1-6
Review of the research trends relative to selected problems in education. By prior arrangement with instructor.
EDUC 5598A Individual Studies In Administration Credits: 1-6
EDUC 5598B Individual Studies In Mathematics Credits: 1-6
EDUC 5598C Individual Studies Curriculum Credits: 1-6
EDUC 5598H Individual Studies Higher Education Credits: 1-6
EDUC 5598J Individual Studies Philosophy Of Education Credits: 1-6
EDUC 5598P Individual Studies Educational Psychology Credits: 1-6
EDUC 5598Q Individual Studies Early Childhood Education Credits: 1-6
EDUC 5598R Individual Studies Education Reading Credits: 1-6
EDUC 5598S Individual Studies Research Credits: 1-6
EDUC 5598SA Individual Studies Research Credits: 1-6
EDUC 5598U Individual Studies History Of Education Credits: 1-6
EDUC 5598X Individual Studies Sociological Foundations Credits: 1-6
EDUC 5599 Research And Thesis Credits: 1-9
Research and Thesis.
EDUC 5599A Practicum In Curriculum And Instruction Credits: 3-6
A field experience which provides an opportunity for the application of current research in the area of curriculum and instruction to an educational setting.
EDUC 5599B Apprenticeship And Conference In College Training Credits: 2-5
Apprenticeship experience in preparing, conducting, and evaluating college teaching under the direction of and in conference with supervising professors. Some attention to student personnel and administration in higher education.
EDUC 5599C Special Problems Credits: 1-6
Individual studies; thesis exploration, special reading.
EDUC 5599D Doctoral Dissertation: Reading Education Credits: 1-16
Doctoral Dissertation: Reading Education
EDUC 5695 Doctoral Dissertation: Reading Education Credits: 1-16
Doctoral Dissertation: Reading Education
EDUC 5696 Dissertation Administration And Community Leadership Credits: 1-16
Dissertation Administration And Community Leadership
EDUC 5697 Dissertation Curriculum And Instruction Credits: 1-16
Dissertation Curriculum And Instruction
EDUC 5698 Dissertation General Education Credits: 1-16
Dissertation General Education
EDUC 5699 Required Graduate Enrollment Credit: 1

Electrical and Computer Engineering (E&C-ENGR)
Courses

E&C-ENGR 5316 Artificial Neural and Adaptive Systems Credits: 3
This graduate course is a hands-on introduction to theory and applications of neurocomputing, including: classification, function approximation, supervised and unsupervised learning, time series analysis, and adaptive filtering using different feed-forward and recurrent artificial neural networks.
Prerequisites: E&C-ENGR 341R (or COMP-SCI 5590CI).

E&C-ENGR 5318 Dynamical Systems and Complex Networks Credits: 3
An overview of classical dynamical systems, and its application in different fields such as Electrical Engineering (nonlinear circuits), Network Sciences, Epidemiology, and Ecology will be discussed. Phenomena such as chaos, bifurcation, and limit cycles will be examined. This course will also introduce and develop the mathematical theory of Complex Networks with applications to network-driven phenomena in Um Internet, search engines, social networks, the World Wide Web, information and biological networks; spectral graph theory; models of networks including random graphs, preferential attachment models, and the small-world models.

E&C-ENGR 5501AP Special Topics In Electrical Engineering Credits: 1-4
E&C-ENGR 5501NN Special Topics In Electrical Engineering Credits: 1-4

E&C-ENGR 5512 Microwave Remote Sensing Credits: 3
Basic principles of remote sensing including scattering, absorption, transmission, and reflection of microwave energy. Basic radiative transfer theory. Microwave remote sensing systems including altimeters, scatterometers, radiometers, synthetic-aperture systems. Principle applications of remote sensing systems including imaging, atmospheric sounding, oceanographic monitoring, ice-sheet dynamics, etc.
Prerequisites: E&C-ENGR 414.

E&C-ENGR 5513 Advanced Principles of RF/Microwave Engineering Credits: 3
General aspects of TE, TM and TEM mode propagation in waveguides; circular waveguides; optical waveguides; wave propagation on dielectric backed conductors; wire antennas equivalence principle and aperture antennas; antenna impedance and mutual coupling in arrays; array beamforming; scattering matrix representations; impedance matching; resonators; filters, couplers and power-dividers; microstriplines and striplines; r.f. propagation in wireless and radar systems; conformal mapping techniques ad applications (optional).
Prerequisites: E&C-ENGR 302, E&C-ENGR 380, E&C-ENGR 381, knowledge in Engineering Computation, Technical Writing Skills.

E&C-ENGR 5516 Computer Networks Credits: 3
Concepts and goals of computer networking, structure of computer networks, OSI model and layers, network control, analysis, design and management, data communication techniques including fiber optics, WAN, MAN and LAN architecture and protocols, internetworking, case studies and hand-on studying the performance by analytic modeling and computer simulation.
Prerequisites: E&C-ENGR 424.

E&C-ENGR 5518 Advanced Radar Systems & Techniques Credits: 3
Radar equation; MTI, Pulsed Doppler and Tracking Radars; Detection of and information from Radar Signals; Radar Antennas, Transmitters and Receivers; Radar Propagation and clutter.
Prerequisites: E&C-ENGR 302, E&C-ENGR 380.

E&C-ENGR 5528 Advanced Embedded Systems Credits: 3
This course examines the hardware/software aspects associated with developing microcontroller-based computer systems. The students learn about the architecture and assembly language for popular microcontrollers and how to take advantage of a variety of input/output options that include binary ports, A/D and D/A converters, communication ports, and interfacing techniques for various applications. Graduate students are required to do Embedded Systems lab experiments.
Prerequisites: E&C-ENGR 426, E&C-ENGR 427.

E&C-ENGR 5530 Digital Electronics Credits: 3
Electronic hardware aspects of digital systems. Includes state-of-the-art information on integrated-circuit logic devices and their applications.

E&C-ENGR 5532 Biomedical Instrumentation Credits: 3
Biomedical objectives, physical and engineering principles; optimal equipment design and actual performance of biomedical instrumentation; considers practical instrumentation problem solutions and unsolved problems.
Prerequisites: E&C-ENGR 330.

E&C-ENGR 5533 Analog Integrated Circuit Design Credits: 3
This course will cover the analysis and design of analog and mixed signal integrated circuits, with an emphasis on design principles for realizing state-of-the-art analog circuits. The course will provide the critical concepts by giving physical and intuitive explanations in addition to the quantitative analysis of important analog building block circuits. First-order hand calculations and extensive computer simulations are utilized for performance evaluation and circuit design. Students will be required to complete a final project which will involve the design at the layout level of an analog circuit. Successful designs will be fabricated through the MOSIS Educational Service.
Prerequisites: E&C-ENGR 276, E&C-ENGR 330.
E&C-ENGR 5534 Computer Arithmetic Credits: 3
Computer arithmetic is a sub field of digital computer organization. It deals with the hardware realization of arithmetic functions to support various computer architectures as well as with arithmetic algorithms for firmware/software implementation. A major thrust of digital computer arithmetic is the design of hardware algorithms and circuits to enhance the speed of various numeric operations. Verilog HDL is used as tool to simulate the algorithms and circuits.
Prerequisites: E&C-ENGR 226, E&C-ENGR 5535.

E&C-ENGR 5535 Hdl-Based Digital Systems Design Credits: 3
This course covers hardware design techniques using a Hardware Description Language (HDL). It also discusses several digital system design methodologies, including structural specifications of hardware, HDL-based simulations and testbenches. Courses focus on the synthesis methodologies for use-defined primitives (UDP), data types, operators, Verilog constructs multiplexed datapaths, buses, bus drivers, FSMs, assignments, case, functions, tasks, named events and rapid prototyping techniques with Verlog HDL, ASICs and FPGAs.
Prerequisites: E&C-ENGR 226.

E&C-ENGR 5536 Power Electronics II Credits: 3
Circuit concepts and analysis techniques for transistor switching regulators, thyristor choppers, transistor inverters, self-commutated thyristor inverters and cycloconverters.
Prerequisites: E&C-ENGR 436.

E&C-ENGR 5537 Mixed-Signal Integrated Circuit Design Credits: 3
Modern integrated circuit design often requires the integration of analog and digital circuits on the same chip. This integration provides numerous advantages over purely analog or digital approaches. This course will cover the analysis and design of mixed-signal integrated circuits and will address the challenges of having both analog and digital circuits on the same substrate. Important mixed-signal circuits such as data converters and filters will be studied in detail.
Prerequisites: E&C-ENGR 433 (or E&C-ENGR 5533).

E&C-ENGR 5542 Introduction to VLSI Design Credits: 3
With a focus on CMOS Digital technology this course covers the basic concepts of integrated circuits, various methods of designing VLSI circuits, and techniques to analyze performance metrics (speed, area, power and noise). Clocking, interconnect and scaling issues of integrated circuit will also be discussed. It will cover device, interconnect and circuit level implementation issues of both logic and memory circuits. To familiarize students with the realities of design complexities and layout environment they will get exposure to VLSI CAD tools in the following levels - schematic, layout, extraction and circuit simulation through the labs and projects.
Prerequisites: E&C-ENGR 358 (or MEC-ENGR 415).

E&C-ENGR 5556 Advanced Instrumentation and Control Credits: 3
The instrumentation and control of industrial processes and systems. Introduction to Programmable Logic Controllers. Simulation modeling of various systems.
Prerequisites: E&C-ENGR 358 (or MEC-ENGR 415).

E&C-ENGR 5557 Fundamentals of Solar Photovoltaic Cells Credits: 3
The science and engineering of solar cell/solar photovoltaic (PV) spans several disciplines namely physics, chemistry, electronic and electrical engineering. Even though solar cell related researches are carried out in those traditional disciplines but it is not widely taught as a comprehensive course. This course highlights the fundamental science and engineering of solar PV devices, solar energy conversion as well as solar cell manufacturing issues. It covers from basic to modern solar PV devices, including typical solar cell materials, basic device physics, ideal and non-ideal models, device parameters and design, and device fabrication.

E&C-ENGR 5558 Automatic Control System Design Credits: 3
Techniques for feedback system design and analysis; computational aids, compensator design and examples, state variable methods, non-linear systems, ad sampled-data control systems.
Prerequisites: E&C-ENGR 226, E&C-ENGR 358.

E&C-ENGR 5559 Introduction to Photovoltaic Systems Credits: 3
The course presents an updated background of world energy production and consumption, a summary of the solar spectrum, how to locate the sun and how to optimize the capture of its energy, as well as the various components that are used in PV systems. Some section of the course has also been added to explain why certain photovoltaic (PV) designs are done in certain ways, as well as how the design process is implemented. Economic and environmental issues as PV design criteria are discussed along with the most recently available technology and design and installation practice.

E&C-ENGR 5560 Electric Power Distribution Systems Credits: 3
Operation and design of utility and industrial distribution systems including distribution system planning; load characteristics; application of distribution transformers; design of subtransmission lines, distribution substations, primary systems, secondary systems, Smart Grid; application of capacitors; voltage regulation and reliability.
Prerequisites: E&C-ENGR 466.
E&C-ENGR 5563 Sustainable Energy System Engineering Credits: 3
This course focuses on understanding the theory and application of emerging energy technologies, including solar, wind, biomass, oceanic, geothermal, hydropower, fuel cell (hydrogen), nuclear, and other more exotic energy sources. A premise of the course is that a sustainable energy technology must both be technically feasible and economically viable. We consequently investigate the above energy technologies and the technological promise, progress, and application of each energy source, as well as its economic opportunities and challenges. Renewable energy sources will be highlighted with a focus on projections for a sustainable energy future.

E&C-ENGR 5565 Auxiliary Electric System Design Credits: 3
This course provides design, operation, contingency analysis and black start requirements of an Auxiliary Electric System (AES) for a coal fired power plant using industry standards (IEEE-666, NEMA MG-1, ANSI C57 and C37 as well as relevant IEC).

Prerequisites: E&C-ENGR 466 or Department Approval.

E&C-ENGR 5567 Power Systems II Credits: 3
This course covers power system matrices, power flow analysis, Gauss-Seidel and Newton-Raphson techniques, fast-decoupled load flow, economic dispatch, transient stability and operation, and power system control.

Prerequisites: E&C-ENGR 358, E&C-ENGR 466.

E&C-ENGR 5568 Economics of Power Systems Credits: 3
Transmission loss formula coefficients, incremental costs and losses, economic scheduling of generation, and applications.

Prerequisites: E&C-ENGR 466, E&C-ENGR 467.

E&C-ENGR 5569 Reliability of Electric Power Systems Credits: 3
Development and use of mathematical models for the calculation and estimation of various measures of reliability in electric power systems, Reliability restoration times and cost assessment of generation, transmission, distribution and composite systems are analyzed.

Prerequisites: COMP-SCI 394R.

E&C-ENGR 5570 Principles of Digital Communication Systems Credits: 3
Principles of random processes, information sources and source coding, modulation and demodulation, block and convolutional error control coding, and equalization.

Prerequisites: COMP-SCI 394R (or equivalent), E&C-ENGR 380.

E&C-ENGR 5572 Antennas & Propagation For Wireless Systems Credits: 3
This course introduces the mathematical aspects of the basic antenna parameters such as vector potential, gain, directivity, impedance, radiation patterns, and develops a comprehensive theory of antenna arrays including the effects of mutual coupling. In-depth modeling studies for wire, aperture and microstrip antennas, is presented; diffraction of plane electromagnetic (TE and TM) waves by perfectly conducting half-planes and wedges- applications to site-specific propagation path modeling in wireless systems.

Prerequisites: E&C-ENGR 341R (or equivalent), E&C-ENGR 412 (or equivalent), written communication skills.

E&C-ENGR 5573 Advanced Electric Power Lab Credits: 3
Advanced applications of concepts experienced in Generating Plants, Substations and Power Plants of fundamentals and concepts of power systems to practical power plan and industrial applications. Operational limitations of all components of power system equipment. Single and Three Phase Circuits, Generators/Alternators, Transformers, Motors, and specialty items (Coronal mass Ejection, Ferroresonance, System Protection).

Prerequisites:E&C-ENGR 466 (or equivalent) and Consent of the Department.

E&C-ENGR 5577 Wireless Communications Credits: 3
Principles of the design and analysis of wireless communications, Study of propagation mechanisms, statistical characterization of wireless channels, diversity and MIMO, spread spectrum and CDMA, Orthogonal Frequency Division Multiplexing (OFDM).

Prerequisites: COMP-SCI 394R (or equivalent).

E&C-ENGR 5578 Multimedia Communication Credits: 3
Visual communication is dominating the Internet and mobile networks. This class covers topics on video signal processing, modeling, compression, and communication. Includes information theory foundations on source coding, lossless coding schemes, video coding framework, as well as the current status of video coding standards and multimedia communication systems.

E&C-ENGR 5579 Digital Signal Processing in Telecommunications Credits: 3
Applications of digital signal processing in telecommunications systems; oversampling and quantization, Delta-Sigma modulation, linear predictive speech coding, adaptive filtering, echo canceller, adaptive receivers and equalizers for wireless communication, digital cellular, CDMA.

Prerequisites: E&C-ENGR 474, E&C-ENGR 480.
E&C-ENGR 5580 Digital Signal Processing Credits: 3
Analysis and representation of discrete-time signals and systems including a discussion of discrete-time convolution, difference equations, the z-transform and the discrete Fourier transform. Similarities with and distinctions between discrete-time and continuous-time signals and systems. Digital network structures for implementation of both recursive (infinite impulse response) and nonrecursive (finite impulse response) digital filters. FFT (Fast Fourier Transform) algorithm for computation of the discrete Fourier transform. Graduate students will be expected to successfully complete a number of additional projects as compared with E&C-ENGR 480.

**Prerequisites:** E&C-ENGR 380.

E&C-ENGR 5582 Image Analysis and Retrieval Credits: 3
Image is an essential form of information representation and communication in modern society with many applications ranging from photography, entertainment, education, defense to medical. A good understanding of the vast amount of image content at signal, image formation, syntactic and semantic levels, would be essential to create new capability and enabling new applications. The course is project based, teaching both theory and practical algorithm and system solutions for image formation/representation, analysis/understanding, image features computing and aggregation, indexing, hashing, and retrieval, as well as applications in mobile visual search, augmented reality and image based navigation.

**Prerequisites:** E&C-ENGR 5580 or equivalent.

E&C-ENGR 5584 Advanced Digital Image Processing Credits: 3
Fundamentals of applied grayscale digital image processing, image sensing and acquisition and quantization, basic set and discrete convolution operations with images, intensity transformations and spatial domain filtering via convolutional masks (smoothing, Laplacian and gradient masks), frequency domain filtering via the two-dimensional discrete transform, two-dimensional sampling and Nyquist theory, frequency domain filtering using lowpass/highpass, rectangular, round, Gaussian and Butterworth filters, image restoration using noise filtering via mean order-statistic and adaptive filters, bandpass, band reject and notch filters, Weiner filters, image deblurring filters, computed aided tomography (i.e. CAT scans), morphological image processing and image segmentation.

**Prerequisites:** E&C-ENGR 380 (Or equivalent undergraduate course in signal processing) and prior experience with MATLAB.

E&C-ENGR 5586 Pattern Recognition Credits: 3
Decision functions, distance measures, minimum distance classifiers, hard clustering methods, fuzzy clustering methods, statistical pattern recognition methods, Bayesian classifiers, error probabilities, estimation of density functions, perceptrons, least-mean-square algorithms, feature selection, dimensionality reduction and syntactic pattern recognition.

**Prerequisites:** COMP-SCI 394R (or STAT 436), a course in high-level programming language.

E&C-ENGR 5588 Communication Theory I Credits: 3
Generalized communication systems, signal processing, signals as random processes, optimum receivers.

**Prerequisites:** COMP-SCI 394R, a statistics course.

E&C-ENGR 5590 Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590AC Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590AD Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590AE Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590AN Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590AR Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590AS Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590AV Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590AW Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590B Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590BB Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590BE Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590BI Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590BP Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590C Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590CA Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590CD Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590CI Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590CL Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590CN Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590CS Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590CT Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590DC Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590DE Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590DS Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590EN Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590ER Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590ES Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590ET Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590FC Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590HF Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590IC Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590IE Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590IN Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590IP Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590IR Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590MC Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590ML Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590MS Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590MW Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590NA Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590NG Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590NM Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590NN Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590NR Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590NT Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590ON Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590OT Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590PB Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590PD Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590PG Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590PL Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590PL2 Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590PL3 Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590PQ Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590PR Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590PS Special Topics In Electrical And Computer Engineering Credits: 1-4
Special Topics In Electrical And Computer Engineering
E&C-ENGR 5590PV Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590RD Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590RE Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590RF Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590SC Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590SD Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590SI Special Topics In Electrical And Computer Engineering Credits: 1-4
Special Topics In Electrical And Computer Engineering
E&C-ENGR 5590SL Special Topics in Electrical and Computer Engineering Credits: 1-4
E&C-ENGR 5590SP Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590T Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590TC Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590VL Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590WC Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590WW Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5590WX Special Topics Credits: 1-3
E&C-ENGR 5590XX Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5597 Directed Readings Credits: 1-3
Readings in an electrical and computer engineering areas selected by the graduate student in consultation with a faculty member. Arrangements must be made prior to registration.
E&C-ENGR 5598 Research Seminar Credits: 1-3
Graduate research and/or readings in an electrical and computer engineering area selected by the graduate student in consultation with a faculty member. Arrangements must be made prior to registration.
E&C-ENGR 5599 Research Credits: 1-6
Independent investigation in field of electrical engineering to be presented in the form of a thesis.
E&C-ENGR 5600 Problems Credits: 2-5
Supervised investigation in electrical engineering to be presented in form of report.
E&C-ENGR 5606 Electromagnetic Scattering and Antenna Theory Credits: 3
Dyadic analysis; integral equations and Green’s functions; field theorems uniqueness, induction equivalence, reciprocity; image and Babinet’s Principles; applications to antennas; method of stationary phase and applications to aperture antennas; array antennas and mutual coupling analysis; method of moments; asymptotic techniques and applications to EM scattering from wedges, cylinders, and spheres; RF propagation path loss modeling and conformal antennas.
Prerequisites: E&C-ENGR 412.
E&C-ENGR 5616 Parallel and Distributed Processing Credits: 3
Covers the fundamental issues involved in designing and writing programs for simultaneous execution. Semaphores and monitor constructs are covered to provide a basis for critical section programming. Expansion of these concepts provide a basis for the analysis and design of control systems for multiprocessor devices and computer networks.
Prerequisites: A systems programming course.
E&C-ENGR 5617 Neural Network Based Computing System Credits: 3
The course will consider computing systems based on neural networks and learning models, along with implementations and applications of such systems.
E&C-ENGR 5618 Artificial Intelligence Credits: 3
Concepts, theories, and models pertaining to neural nets, pattern recognition, learning systems, and programmed problem solving.

E&C-ENGR 5619 Theory of Automata Credits: 3
Sequential machines: Turing machines; deterministic and stochastic automata; applications of automata.

E&C-ENGR 5624 Digital Software Systems Design Credits: 3
Characteristics and parameters of various software subsystem including assemblers, compilers, utility programs, special programming packages, interpreters, and operating systems; and principles of organization into efficient systems.

E&C-ENGR 5633 Nanoelectronics II: Nanoscale Integration & Manufacturing Credits: 3
This course is continuation of Nanoscale Devices and circuits course offered in Fall 2016. In this course students will learn theory about semiconductor processing, and their applications. Limitations of existing process techniques will be discussed, and advances in both physical implementation and circuit/integration techniques will be introduced. Some example of topics that will be covered are: optical lithography, EUV lithography, nanoimprint, implantation, manufacturing aware circuit design, etc. The laboratory work will include modeling and simulation with state-of-the-art semiconductor processing and device simulation tools such as: SRIM, Sentaurus TCAD Process, Sentaurus TCAD Device, etc. Research intensive course.

Co-requisites: E&C-ENGR 5542.

E&C-ENGR 5635 VLSI Systems Design Credits: 3
Course discuss design of the MOSFETs (nFETs and pFETs), and high speed CMOS cascades in VLSI. It also covers the design of various arithmetic circuits, different fast adders, memories, and chip-level physical designs requirements in the VLSI subsystems are also the focus of this course. It uses Verilog HDL/VHDL as a tool to design VLSI systems.

Prerequisites: E&C-ENGR 5535 (or knowledge of VHDL).

E&C-ENGR 5642 Advanced VLSI Design Credits: 3
Course focuses on the issues and challenges of high performance VLSI circuits and systems. The course will be based on papers published in accredited journals and conference proceedings. The goals of this course: (1) Familiarize students with the current and emerging trends, issues and design alternatives of deep submicron and nanoscale IC technologies; (2) Help students acquire the knowledge and skills required for graduate study and research, and professional careers in IC industry; and (3) Teach students how to collect and survey technical materials, develop new research ideas, write research papers, and present technical contents in front of an audience.

E&C-ENGR 5644 Liapunov and Related Nonlinear Methods in Automatic Control Credits: 3
A study of nonlinear methods in automatic control including phase plane analysis, describing function techniques, basic definitions and theorems of Liapunov, methods of generating Liapunov functions, applications of Liapunov's methods, and Popov's methods.

E&C-ENGR 5645 Optimal Control Theory Credits: 3
Analysis and design of dynamic systems using optimal control theory parameter optimization, dynamic optimization, computational methods, differential games.

E&C-ENGR 5646 Stochastic Optimal Estimation and Control Credits: 3
Surveys random process theory; stochastic control and optimization; estimation and filtering based on Kalman-Bucy techniques; stochastic stability; adaptive and learning control systems.

E&C-ENGR 5660 Power-Systems Stability Credits: 3
Performance of synchronous machines under transient conditions, power system stability, system fault computations using symmetrical components; computer solutions of power system problems.

E&C-ENGR 5661 Solid State Energy Conversion Credits: 3
Solid state direct energy conversion; and design of thermoelectric generators and heat pumps.

E&C-ENGR 5662 Power Electronic Drives Credits: 3
Advanced study of dc and ac motor drives controlled by power electronic methods, including phase controlled rectifier de chopper, cycloconverter, variable frequency inverters.

Prerequisites: E&C-ENGR 5536.

E&C-ENGR 5664 Lightning and Switching Surges in Power Systems Credits: 3
Overvoltage, switching surge and lightning effects of a power system. Use of grounding and lightning arresters. Effects of surges off and on machines.

Prerequisites: E&C-ENGR 466 (or equivalent), E&C-ENGR 467 (or equivalent).

E&C-ENGR 5668 Advanced Computer Methods in Power System Analysis Credits: 3

Prerequisites: E&C-ENGR 466, strong background in FORTRAN or C.

E&C-ENGR 5670 Direct Current Power Systems Credits: 3
Characteristic and performance analysis of DC transmission lines and associated conversion systems.
E&C-ENGR 5672 Power Systems Relaying Credits: 3
Theory of relaying systems for power system protection, improvement of power system stability. Relay coordination; performance of relays during transient swings and out-of-step conditions.
Prerequisites: E&C-ENGR 466.

E&C-ENGR 5674 Machine Intelligence Credits: 3
Formal languages in relation to natural language processing; formal languages, graphs, and image processing; formal logic and automated theorem proving; natural language processing; aspects of problem solving and heuristic programming.

E&C-ENGR 5675 Introduction to the Modeling and Management of Uncertainty Credits: 3
Theoretical and practical issues in the modeling and management of uncertainty. Topics include probabilistic uncertainty, belief theory and fuzzy set theory. Applications to computer vision, pattern recognition and expert systems.

E&C-ENGR 5676 Advanced Electric Circuit Analysis Credits: 3
Specialized study of mathematical analysis as applied to solutions of circuit networks with fixed and variable parameters.

E&C-ENGR 5677 Network Synthesis Credits: 3
Surveys linear active and nonreciprocal circuit elements, reliability conditions, methods for synthesizing active networks, and practical applications.
Prerequisites: E&C-ENGR 5676.

E&C-ENGR 5680 Digital and Sample-Data Systems Credits: 3
Introduces sampling and quantization, design of digital and sample-data systems, digital filters, adaptive sampling and quantization.
Prerequisites: E&C-ENGR 480.

E&C-ENGR 5681 Applications Of Transforms Credits: 3
Applications of Laplace and other transform methods of solution of circuit and field problems.

E&C-ENGR 5682 Coding Theory II Credits: 3
Further study of error-correcting codes; ring and cyclic codes, linear switching circuits, burst error codes, codes for arithmetic units, etc.
Prerequisites: E&C-ENGR 5579.

E&C-ENGR 5684 Computer Vision Credits: 3
Image processing methods for segmentation, object representation, scene description and scene interpretation.
Prerequisites: E&C-ENGR 484.

E&C-ENGR 5688 Communication Theory II Credits: 3
Probability theory of analog and digital communication in the presence of random process noise. Encoding systems, detection systems, optimum receivers.
Prerequisites: E&C-ENGR 472.

E&C-ENGR 5689 Special Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5690EM Advanced Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5690ET Advanced Topics In Electrical And Computer Engineering Credits: 1-4
E&C-ENGR 5690ND Special Topics in Electrical and Computer Engineering Credits: 1-3
E&C-ENGR 5697 Advanced Directed Readings Credits: 1-5
Advanced readings in an electrical and computer engineering area selected by the graduate student in consultation with a faculty member. Arrangements must be made prior to registration.

E&C-ENGR 5698 Advanced Research Seminar Credits: 1-5
Advanced Graduate research and/or readings in an electrical and computer engineering area selected by the doctoral student in consultation with a faculty member. Arrangements must be made prior to registration.

E&C-ENGR 5699 Dissertation Research Credits: 1-9
Doctoral Dissertation

Endodontics (ENDO)

Courses
ENDO 5701 Endodontontology 1 Credits: 1-6
This course is designed to introduce the first year endodontic postgraduate student to the field of advanced endodontics. It will provide introductory information and guidance which will serve as a basis for follow on course work in ENDO 5702 through ENDO 5706.

ENDO 5702 Endodontontology 2 Credits: 1-6
This course is designed to continue the transition of the general dentist into a first year endodontic postgraduate student in the field of advanced endodontics. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.
ENDO 5703 Endodontology 3 Credits: 1-6
This course is designed to complete the transition of the general dentist into a first year endodontic postgraduate student in the field of advanced endodontics. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.
Prerequisites: ENDO 5701, ENDO 5702.

ENDO 5704 Endodontology 4 Credits: 1-6
This course is designed to transition the first year into a second year postgraduate student in the field of advanced endodontics. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.
Prerequisites: ENDO 5701, ENDO 5702, ENDO 5703.

ENDO 5705 Endodontology 5 Credits: 1-6
This course is designed to continue the transition of the general dentist into a more proficient second year postgraduate student in the field of advanced endodontics. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.
Prerequisites: ENDO 5701, ENDO 5702, ENDO 5703, ENDO 5704.

ENDO 5706 Endodontology 6 Credits: 1-6
This course is designed to complete the transition of the general dentist into a fully independently practicing endodontist. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.
Prerequisites: ENDO 5701, ENDO 5702, ENDO 5703, ENDO 5704, ENDO 5705.

ENDO 5721 Endodontology 7 Credits: 1-6
This course is designed to complete the transition of the general dentist into a fully independently practicing endodontist. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.
Prerequisites: ENDO 5706.

ENDO 5722 Endodontology 8 Credits: 1-6
This course is designed to complete the transition of the general dentist into a fully independently practicing endodontist. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.
Prerequisites: ENDO 5721.

ENDO 5723 Endodontology 9 Credits: 1-6
This course is designed to complete the transition of the general dentist into a fully independently practicing endodontist. It will build upon material taught in previous courses of instruction as well as introduce completely new material to the resident.
Prerequisites: ENDO 5722.

**English Language & Literature (ENGLISH)**

**Courses**

**ENGLISH 5500 Graduate Study In English** Credits: 3
An introduction to methods of research and scholarship related to English studies. The course uses a wide spectrum of print and digital materials, library facilities (including archives and Special Collections), databases, and other resources to explore English studies as an academic discipline and profession.

**ENGLISH 5500P Special Topics** Credits: 3

**ENGLISH 5501 Magazine Editing** Credits: 3
A course combining academic study of editorial management, publishing operations, and language skills, with "hands on" experience in article evaluation, editing, magazine production, and legal matters such as copy right and libel. Class work concentrates on authentic and effective language use, with attention given to copy editing, grammar, typography, printing processes, financing and distribution for commercial and small-press publications.

**ENGLISH 5502 Magazine Nonfiction** Credits: 3
This course emphasizes the origination and execution of nonfiction magazine articles for a variety of publications. Special attention is given to successful queries and the various writing techniques required for different kinds or articles. Students learn re-structuring and revision and the legalities affecting writers. Students are expected to complete three publishable articles.

**ENGLISH 5503 Old English** Credits: 3
This course is a study of Old English, its grammar, its poetic style, and its literature, both poetry and prose.

**ENGLISH 5508 Harlem Renaissance** Credits: 3
This course examines the period from 1920 to 1940, known as the Harlem Renaissance, a time of unprecedented literary and cultural creativity by Black artists. This course explores a variety of cultural productions, not only traditional forms of literature such as novels, short stories, plays and poetry, but also nonliterary objects of study such as painting, sculpture, and music.
ENGLISH 5510 Black Women Writers Credits: 3
This course explores the writings of African American Women Writers. The course examines how these writers have interacted with and often revised stereotypical representations of African American womanhood typically found within canonical and African American male literatures. The course will examine literature (which might include fiction, poetry, autobiography, and drama) of the 19th and 20th centuries; the majority of the works will be by modern and contemporary authors such as Nella Larsen, Zora Neale Hurston, Toni Morrison, and Terry McMillan. By placing the works in this sort of cultural and historical context, it will be possible to examine the unique tradition of African American women’s writings as well as individual texts.

ENGLISH 5512 Chaucer Credits: 3
Readings from Chaucer’s most important works, especially “The Canterbury Tales” and “Troilus and Criseyde” with emphasis on them as types of medieval genres and on the Middle English language. Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5513 Renaissance Literature I Credits: 3
English literature from the time of Wyatt and Surrey to the beginning of the 17th century, including the works of Spenser, Marlowe, Sidney, Shakespeare and others. Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5514 Milton Credits: 3
A study of Milton's prose and poetry, with special attention to "Paradise Lost". Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5515 Restoration And Early 18th-Century British Literature Credits: 3
British literature from the late 17th century to the mid-18th century. Selected writers may include Addison and Steele, Behn, Congreve, Defoe, Dryden, Finch, Pope, Rochester, Swift, and Wortley Montagu.

ENGLISH 5516 The Romantic Period Credits: 3
An extensive study of selected writers (such as Austen, Barbauld, Byron, Coleridge, Hazlitt, Hemans, Keats, Gilpin, the Shelleys, Wollstonecraft, and Wordsworth) organized around literary themes and/or cultural issues important to the Romantic period.

Prerequisites: ENGLISH 327.

ENGLISH 5517 Modern Poetry Credits: 3
Study of works by modernist poets such as Hopkins, Yeats, Frost, Stevens, Williams, Moore, Pound, H.D., Eliot, Millay, Hughes. Students will make in class presentations and submit papers requiring research and bibliographic work.

ENGLISH 5518 19th-Century American Literature Credits: 3
An intensive study of either selected major American writers in the 19th century or of 19th-century literary movements. Students will make in class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5519 Teaching Writing: Theories, Histories, Contexts, Practices Credits: 3
This course focuses on issues related to the teaching of English at the high school and college levels, with an emphasis on the teaching of writing. Issues addressed may include assignment design, teaching invention and revision, response to and evaluation of writing, collaborative learning, relationships between reading and writing, classroom uses of electronic media, and institutional contexts within which teachers work. The course is required of Graduate Teaching Assistants in the UMKC Composition Program, to be taken either prior to or concurrently with their first semester of teaching. Secondary English teachers and others interested in English teaching are also welcome.

ENGLISH 5520 Greater Kansas City Writing Project Credits: 3
Studies in methods and objectives for the teaching of English with special attention to secondary school teaching. This course is repeatable for credit with advisor approval.

ENGLISH 5520A Greater Kansas City Writing Project Credits: 3
ENGLISH 5520B Greater Kansas City Writing Project Credits: 3
ENGLISH 5520D Greater Kansas City Writing Project Credits: 3
ENGLISH 5522 Medieval Literature Credits: 3
Western religious and secular verse and prose to the 15th century. Late Middle English works are read in the original; all other selections in translation. Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5523 Renaissance Literature II Credits: 3
English literature from 1600 to the beginning of the Restoration, including the works of Donne, Jonson, Milton, and other contemporaries. Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5526 The Victorian Period Credits: 3
An intensive study of selected writers (such as Arnold, Braddon, the Brontes, the Brownings, Dickens, Darwin, Eliot, Gaskell, Hardy, Ruskin, and the Rossettis) organized around literary themes and/or cultural issues important to the Victorian period.

Prerequisites: ENGLISH 327.

ENGLISH 5527 Contemporary Poetry Credits: 3
Study of works by contemporary poets (post- World War II), such as Auden, Bishop, Hayden, Berryman, Rukeyser, Larkin, Rich, Plath, Heaney, Boland, and Komunyakaa. Students will make in class presentations and submit papers requiring research and bibliographic work.
ENGLISH 5528 20th Century American Literature Credits: 3
Major American writers or literary movements of the 20th century. Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5529 Graduate Seminar: Screenwriting Credits: 3
A seminar on advanced theory in narrative screenwriting, script analysis and constructive story editing. Students draft, revise and workshop a short film script or a feature screen play, and deliver a pitch, treatment, draft and revision of the first act and detailed outline of the whole script. Students workshop feature screenplays in small groups.
Prerequisites: ENGLISH 429B or COMM-ST 454.

Cross Listings: COMM-ST 354.

ENGLISH 5531 Late 18th-Century British Literature Credits: 3
British literature from the mid to late 18th century. Selected writers may include Blake, Burney, Collins, Equiano, Fielding, Gray, Johnson, Sheridan, and Wollstonecraft.

ENGLISH 5532 Advanced Creative Writing: Fiction Credits: 3
A course for advanced students of fiction writing. The class will proceed through analysis of models, discussion of general principles, and critique of student work. Students will simultaneously be encouraged to experiment and to refine the form and subjects best suited to their talents. Emphasis will remain on the short story, though there may be units in other forms--novella, film script, the non-fiction essay. May be repeated once for credit.
Prerequisites: Graduate Standing.

ENGLISH 5533 Histories Of Writing, Reading, And Publishing Credits: 3
A study of selected topics concerning the material practices of writing, reading, and publishing within specific cultural and historical contexts. Issues examined may include authorship, education, information technologies, libraries, literacy, periodicals, popular literature, publishers, and communities of readers.

ENGLISH 5534 Postcolonial Literature Credits: 3
An exploration of postcolonialism through the study of literary and theoretical texts created by or representing peoples whose historical experience has been decisively shaped by the experience or legacies of colonialism. Texts will be drawn from a variety of genres and from several countries. The course will consider several definitions of postcolonialism and related terms such as cosmopolitanism, hybridity, diaspora, and nationalism.

ENGLISH 5535 Advanced Creative Writing: Poetry Credits: 3
An advanced poetry workshop that includes intensive reading of contemporary poetry and aims at each student creating a portfolio of publishable poems. The focus of the course will vary to address a variety of topics such as metaphor and closure; imitation and the line; form and voice. May be repeated once for credit.
Prerequisites: Graduate Standing.

ENGLISH 5536 Poetic Forms Credits: 3
An advanced creative writing course that focuses on intensive study of and practice in metrics and traditional and nonce forms. May be repeated once for credit.
Prerequisites: ENGLISH 315 or equivalent.

ENGLISH 5537 Prose Forms Credits: 3
This course covers techniques for planning and drafting major prose forms. Students will learn how to use content as a guide to inventing new forms (i.e. novella, novel, linked-story collection, episodic novel, essay novel, and creative nonfiction book.
Prerequisites: ENGLISH 432WI, ENGLISH 435WI.

ENGLISH 5538 Women's Literature in Africa and the African Diaspora Credits: 3
This course is a comparative examination of the variety of literary works produced by women of African descent in the United States, the Caribbean and Africa. Students will explore the cross-cultural implications of texts in light of the intersections of gender, race and class.
Cross Listings: BLKS 5538.

ENGLISH 5540 American Culture Credits: 3
Texts that offer perspectives on key historical themes of American culture. Texts may be grouped around any culturally significant principle (e.g. region, race, gender, class, ethnicity, religion) or theme (e.g. the mythology of the frontier, marriage and domesticity, the American Dream). Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5541 Girls And Print Culture Credits: 3
This course deals with girls' relationships to the continually evolving print culture. Students will examine various literary representations of girlish by adult writers, explore texts directed at girls (e.g., conduct books, periodicals, textbooks), and study the writing and reading practices of girls themselves.
ENGLISH 5545 History And Principles Of Rhetoric Credits: 3
A study of selected writings of ancient and modern rhetoricians illustrating key issues in the development of Western discourse theory and practice. Issues examined include the relationships between rhetoric and knowledge, orality and literacy, and rhetoric and poetics. Attention will also be given to the implications of rhetorical theory for modern language instruction. Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5546 From Field Shout to Hip Hop: African American Poetic Traditions Credits: 3
This course examines the development of African American poetry from its early forms as field shouts, ballads, and blues to present forms including spoken word and hip hop. Includes authors such as Phillis Wheatley, Paul Lawrence Dunbar, Langston Hughes, Gwendolyn Brooks, Tupac Shakur, and Jessica Care Moore.

ENGLISH 5547 Theory and Criticism in English Studies Credits: 3
A survey of major schools and methods of literary theory and criticism. Authors and texts to be determined by the instructor of the course.

ENGLISH 5548 External Internship Credits: 1-3
Students may complete an external internship involving writing and editing with a publishing company, trade magazine, literary or academic journal, other print or electronic media organization, or with advertising, public relations, or non-profit firms. Internships are granted on a competitive basis. Students will compile a portfolio of their work under the direction of the internship supervisor to be submitted for evaluation to the department’s internship coordinator.

ENGLISH 5549A Publication Practicum Credits: 1-3
This course provides practical experience with New Letters magazine, New Letters on the Air, and BkMk Press in business analysis/reporting, copy-editing, manuscript evaluation, promotion/grant development, library research, market research, and other skills. The practicum is limited to three students per semester, to be chosen on the basis of demonstrated writing and organizational skills. References are required. May be taken for no more than three credit hours over a maximum of two semesters. Permission of the instructors required.

ENGLISH 5549B Publication Practicum Credits: 1-3
This course covers the basics of producing an issue of an academic journal. Students acquire hands-on experience at all stages of production.

ENGLISH 5549C Publication Practicum Credits: 1-3
This course allows students to work with a faculty member on an ad hoc project for publication such as a special journal issue or festschrift, book manuscript, a new scholarly edition of a primary text, or a digital edition. Course may be repeated once for continued work on the same project.

ENGLISH 5550 Graduate Seminar Credits: 3
Authors, works and intellectual currents which form the basis of these seminars may vary from semester to semester, depending upon the instructor’s design for the course. May be repeated for credit. Continued in ENGLISH 5555.

ENGLISH 5550A Graduate Seminar Medieval Literature I Credits: 3
ENGLISH 5550B Graduate Seminar Renaissance Literature I Credits: 3
ENGLISH 5550C Graduate Seminar Neo-Classical Literature I Credits: 3
ENGLISH 5550D Graduate Seminar 19th Century Literature I Credits: 3
ENGLISH 5550E Graduate Seminar American Literature I Credits: 3
ENGLISH 5550F Graduate Seminar Modern Literature I Credits: 3
ENGLISH 5550G Graduate Seminar Literary Criticism Credits: 3
ENGLISH 5550H Graduate Seminar Studies In Fiction I Credits: 3
ENGLISH 5550I Graduate Seminar In Dramatic Literature I Credits: 3
ENGLISH 5550J Graduate Seminar: History Of The English Language Credits: 3
ENGLISH 5550K Graduate Seminar: Creative Writing Prose Credits: 3
ENGLISH 5550M Graduate Seminar In Rhetoric And Composition Credits: 3
ENGLISH 5550MA Greater Kansas City Writing Project: Invitational Credits: 3
ENGLISH 5550MC Greater K.C. Writing Project:Writing & The Teaching Of Literature Credits: 3
ENGLISH 5550MD Greater Kc Writing Project:Critical Thinking & Process Writing Credits: 3
ENGLISH 5550ME Greater K.C. Wrtg Project:Researching The Theories Of Tchng Wrtng Credits: 3
ENGLISH 5550N Graduate Seminar: Criticism Credits: 3
ENGLISH 5550P Graduate Seminar: Sociolinguistics And Dialectology Credits: 3
Seminar focusing on the role of social factors in language use, and on the origin and development of regional and urban dialects in English. Special attention will be paid to sociolinguistic motivations for change, variation and merger in dialects and languages in contact, and Black English.

ENGLISH 5551 Shakespeare Comedies And Histories Credits: 3
A study of Shakespeare’s major comedies and history plays with special emphasis on his dramatic works before 1600. Students will make in-class presentations and submit papers requiring research and bibliographical work.
ENGLISH 5552 Early English Drama Credits: 3
English religious and secular drama prior to Shakespeare. Mystery and morality plays are studied with emphasis on their literary and social backgrounds. Close readings of such works as "Everyman," "The Wakefield Second Shepherd's Play," and "The Spanish Tragedy." Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5553 Modern Drama 1880-1945 Credits: 3
A study of modern drama: Continental, British, and American, including history and development, critical theory, and literary evaluation. This course will focus on the earlier modern playwrights from Ibsen to Shaw, with special attention to naturalism. Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5554 The Civil Rights Movement in African American Literature Credits: 3
This course examines how African American literature shaped ideas about freedom, rights, citizenship and race in the civil rights movement. It draws on a variety of literary forms—speeches, essays, autobiographies, fiction, drama, poetry and film—to explore the movement's impact on communities and cultures as well as its various debates and competing visions.

ENGLISH 5555 Graduate Seminar Credits: 3
Graduate Seminar - second half.
Prerequisites: ENGLISH 5550.

ENGLISH 5555A Graduate Seminar Medieval Literature II Credits: 3
ENGLISH 5555B Graduate Seminar Renaissance Literature II Credits: 3
ENGLISH 5555C Graduate Seminar Neo-Classical Literature I Credits: 3
ENGLISH 5555D Graduate Seminar In 19th-Century Literature II Credits: 3
ENGLISH 5555E Graduate Seminar American Literature II Credits: 3
ENGLISH 5555F Graduate Seminar In Modern Literature II Credits: 3
ENGLISH 5555G Graduate Seminar Literary Criticism Credits: 3
ENGLISH 5555H Graduate Seminar Studies In Fiction II Credits: 3
ENGLISH 5555I Graduate Seminar In Dramatic Literature II Credits: 3
ENGLISH 5555J Graduate Seminar English Language Credits: 3
ENGLISH 5555K Graduate Seminar In Creative Writing: Poetry Credits: 3
ENGLISH 5555M Graduate Seminar: Composition Credits: 3
ENGLISH 5555N Graduate Seminar: Prose Fiction Credits: 3
ENGLISH 5556 Studies In The Novel 1740-1900 Credits: 3
An intensive study of no more than three major novelists of the eighteenth or nineteenth century. The content of the course will change, depending on the instructor. Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5557 Stages toward Freedom: African American Dramatic Traditions Credits: 3
This course explores the development of African American dramatic traditions from the eighteenth century through the Harlem Renaissance, Black Arts Movement, to current postmodernism. Includes authors such as W.W. Brown, Zora N. Hurston, Amiri Baraka, Sonia Sanchez, August Wilson, Suzan-Lori Parks.

ENGLISH 5558 Slave Narratives: Race, Gender and Writing Freedom Credits: 3
A truly American, home grown genre and powerful force in the development of American political and social realities, the African American Slave Narrative is an established, recognized influence in the development of African American and American literary history. In this course you will have the opportunity to explore the historical trajectory of the Slave Narrative, looking at early formulations of its structure, purpose and conventions—especially in terms of gender and race, subsequent various permutations, and the eventual development of the Neo-slave Narrative as its resurrection, which adds to the complexity and theoretical impact of the literary autobiography from black perspectives.

ENGLISH 5559 African American Migrations in Literature Credits: 3
The course examines representations of two different trajectories of migration in African American literature: African American journeys from the south to northern and mid-western regions of America, and concurrent migrations of Caribbean people to the US in the early twentieth century.

ENGLISH 5560 Special Topics Credits: 1-4
The professor who gives this course determines what its content shall be. All aspects of English studies are within its possible range.

ENGLISH 5561 Shakespeare: Tragedies And Romances Credits: 3
A study of Shakespeare's major tragedies and late romances with special emphasis on his dramatic literature after 1600. Students will make in-class presentations and submit papers requiring research and bibliographical work.
ENGLISH 5562 Restoration And 18th-Century Drama Credits: 3
The drama after the restoration of the monarchy and the reopening of the theatres through the 18th century. Special emphasis is placed on the comedy of manners and the heroic drama in the Restoration and the sentimental comedy in the 18th-century. Includes such playwrights as Dryden, Congreve, Etherege, Wycherley, Steele, Lillo, Cumberland, Sheridan, and Goldsmith. Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5563 Contemporary Drama Credits: 3
A study of contemporary drama: Continental, British, and American, including history and development, critical theory and literary evaluation. This course will focus on the more recent writers, including the absurdists, with special attention to experimental drama. Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5564 Medieval Methods & Paleography Credits: 3
This course examines the methodology and historiography of Medieval Studies. Through an introduction to paleography, the study of medieval handwriting, it prepares students for advanced work in Medieval and Renaissance studies. Using an interdisciplinary approach, this course will examine the historical and cultural settings for medieval texts, their physical form and production, as well as the tradition of textual transmission in the medieval world. In addition to gaining familiarity with the many different types of primary sources, such as literary, artistic, legal, and notarial sources, students will be exposed to methods for practical archival work in various European nations.

Prerequisites: First Year Latin.

Cross Listings: HISTORY 5583.

ENGLISH 5565 Studies In Modern Novel Credits: 3
An intensive study of no more than three major 20th-century novelists. The content of the course will change depending on the instructor. Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5566CA Cluster Course: Images Of The Human Body In The Renaissance Credits: 3
Focusing on Renaissance conceptions of the human body, this cluster treats the following topics as they are reflected in Renaissance literature, art, astrology, astronomy, biology, anatomy, medicine, and politics: A) The dignity of the human body B) Microcosm and macrocosm. C) The human body and the heavens D) Stranger manifestations: freaks and beasts E) The humors F) Disorders of the human body G) The body politic H) The human body as an object of study.

ENGLISH 5566CF Courts And Culture In The Middle Ages Credits: 3
This cluster course offers an interdisciplinary approach to the study of the Middle Ages, focusing on medieval cultures in Europe. Arranged around a series of themes, the cluster will read a variety of documentary and literary texts to investigate not only the "high culture" of the courts but also the interactions of people from various social backgrounds in Western Europe.

ENGLISH 5575 Advanced Creative Writing: Creative Nonfiction Credits: 3
This course is devoted to the study and crafting of the personal essay. Students will explore - and practice many different varieties of this diverse form. Whether in the guise of aesthetic appreciation, cultural critique, personal history, political reportage, or travelogue, our course readings are first and foremost PERSONAL narratives, both troubled and enriched by their subjectivity (the essay's "I"). Students will study the many challenges particular to this form (most of which concern notions of truth, and its rendering) and strive to overcome them as they create vivid personal narratives of their own.

ENGLISH 5582 European Literature: 18th Century Credits: 3
The 18th-century course will focus on the more recent writers, including the absurdists, with special attention to experimental drama. Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5583 Research And Thesis Credits: 1-9
Under the guidance of a graduate MFA faculty member, students completing the MFA must complete and orally defend a publishable or producible manuscript. May be repeated for a maximum of six hours credit.

ENGLISH 5591 Research In Selected Fields Credits: 1-3
An intensive study of no more than three major 20th-century novelists. The content of the course will change depending on the instructor. Students will make in-class presentations and submit papers requiring research and bibliographical work.

ENGLISH 5598A MFA Thesis Credits: 3-6
Under the guidance of a graduate MFA faculty member, students completing the MFA must complete and orally defend a publishable or producible manuscript. May be repeated for a maximum of six hours credit.

ENGLISH 5599 Research And Thesis Credits: 1-9
A student, with permission of the graduate committee, may write a thesis for 3 hours credit.

ENGLISH 5600 Introduction To Doctoral Study In English Credits: 3
Introduction to research skills necessary for doctoral work, particularly for writing the thesis; attention will be paid both to traditional skills such as bibliography and to computer skills.

ENGLISH 5601 Culminating Experience in Literature Credit: 1
Under the guidance of a graduate faculty member in English, students following the program of study in Literature must revise and orally defend a 20-30 page paper in Literature on a pass/no pass basis.

ENGLISH 5602 Culminating Experience in Language & Literature Credit: 1
Under the Guidance of a graduate faculty member in English, Students following the program of study in Language Literature must revise and orally defend a 20-30 page paper in Language Literature on a pass/no pass basis.
Entrepreneurship (ENT)

Courses

ENT 5502 Introduction to Entrepreneurship Credit: 1.5
This course helps students develop insight into what it takes to launch a successful startup. The primary focus is on opportunity identification and evaluation. This is accomplished by examining the characteristics of a good entrepreneurial opportunity and the steps required to get a business up and running.

ENT 5508 Corporate Entrepreneurship and Innovation: Meeting the Management Challenge Credits: 3
This course seeks to equip students with the skills required to develop new ideas and create viable new businesses within the context of an established organization. The course will address the development of an internal culture of innovation, processes for reviewing ideas and for developing business concepts, strategic analysis, and positioning for competitive advantage.
Prerequisites: Enrolled in a Bloch School graduate program.

ENT 5515 Entrepreneurship Boot Camp Credits: 3
This course provides students with an understanding of the process for identifying and evaluating entrepreneurial opportunities. Students will also learn how strategy, marketing, financial and legal structure, and cash flow affect opportunities in terms of execution and growth, and how to position a new firm for success. The course will encourage students to reflect on their own entrepreneurial potential and to evaluate entrepreneurship as a potential career path. Even those who do not feel that they are entrepreneurs will benefit by discovering how to function more effectively in entrepreneurial organizations. Furthermore, those responsible for technical innovation and business development within existing organizations should find this course helps them to create value and distinguish themselves in their work performance.

ENT 5525 Entrepreneurship: Managing Creativity And Innovation Credits: 3
The course examines the nature of creativity and innovation and how entrepreneurship involves the ability to identify market opportunity based on new ideas. Detailed attention is given to the entrepreneurial process: the concepts, skills, know-how and know-who, information, attitudes, alternatives and resources that entrepreneurs need to manage creativity in the process of creating something with tangible economic value.

ENT 5527 Creating the New Venture Experiential Learning Credits: 3
This course guides students through the process, experiences, and requirements for creating a new venture and planning for operations up to the point of securing customers and generating first revenues. Key course actions include developing a business plan for the new venture, examining the initial steps for start-up and operational launch, and taking the initial steps to secure customers/revenues.

ENT 5529 Entrepreneurship Scholars Credits: 3
In this course, students will acquire the skills required to manage and grow a successful new venture through hands-on, real-world work on their own venture. Students will work with the instructor and at least one mentor to identify specific deliverables and a long term venture plan. Students will manage their enterprise, attend a series of workshops, and work with their peers, instructional coaches and mentors to further their venture.

ENT 5530 Creative Problem Solving: From Ideation to Implementation Credits: 2
Students develop critical thinking and facilitation skills to improve effectiveness in individual and team problem solving that requires creativity for an innovative solution. Each problem, situation, team, and organization have unique characteristics that will influence the appropriateness and effectiveness of particular problem solving processes and techniques. Using several CPS models, divergent and convergent thinking techniques, leadership skills, and facilitation skills students develop creative responses to challenging problems in organizations and work groups.

ENT 5531 New Product Development Credits: 2
A systematic overview of the management issues that arise during the process of new product development (NPD). Students learn integration across the traditional management functions and the tools and concepts for linking development to strategy and for managing the development process for speed, efficiency, and market impact. Students will develop a physical prototype of a product that meets and exceeds real customer needs.
ENT 5532 Managing the New Venture Experiential Learning Credits: 3
This course is designed to provide students an experiential learning opportunity in running a new business. In particular, students will run the business that they started in ENT 5527. Students will define and deliver products and services to real business customers and clients; negotiate with suppliers, administrative agencies and other stakeholders; obtain financing for on-going company relations; and be held accountable for cash flows and company budgets.

Prerequisites: ENT 5527.

ENT 5533 Technology Commercialization and Business Planning Credits: 2
Exploration of screen technology opportunities in diverse areas, from information systems to telecommunications, biotechnology, intellectual property acquisition, creation, and protection. Students will learn how to license technology that others have patented, and how to license their own technology to others and create diverse revenue streams.

ENT 5535 Small Business Management And Entrepreneurship Credits: 3
This course focuses on the nature of the entrepreneurial organization; its volatility and flux, where standard operating procedures are lacking and organizational structure, culture and leadership style are created anew each day. Successful small business management requires that a series of developmental challenges be identified and addressed if the venture is to succeed.

ENT 5545 Entrepreneurship And New Venture Creation Credits: 3
The objectives of this course are: (1) to build personal appreciation for the challenges and rewards of entrepreneurship in an independent mode by examining/simulating its environment; (2) to present and examine, through the use of complex case studies and high level guest/lectures, economic, legal and managerial mechanisms proven useful in creating new wealth; and (3) to foster continued development of venture ideas, suitable as career entry options or for investments, using a tutorial approach to business plan development, presentation and evaluation.

ENT 5549 Meeting the Management Challenge: The Role of Corporate Entrepreneurship and Innovation Credits: 2
Students learn the skills required to develop new ideas and create viable new businesses within the context of an established organization. The development of an internal culture of innovation, processes for reviewing ideas and for developing business concepts, strategic analysis, and positioning for competitive advantage will be explored.

ENT 5552 Entrepreneurial Marketing Credits: 3
This course exposes students to the objectives, challenges, and requirements for effective, results-oriented marketing activities and sales efforts for the entrepreneur/new venture. Key topics include the selection, design, and budgeting of entrepreneurial marketing and advertising programs, along with effective selling, customer acquisition, and service/retention efforts.

ENT 5561 New Venture Creation and Product Innovation Credits: 2
This course covers the first part of a two-course sequence and brings together several disciplines students have encountered in the first year of the Executive MBA program curriculum. Students will gain experience in new venture creation and product innovation management. A management simulation will serve as a continuing, evolving "case" in which course participants working in teams assume the role of CEO.

Prerequisites: Admission to the Executive MBA program.

ENT 5563 Social Entrepreneurship Credits: 3
This course introduces students to social entrepreneurship through lectures and discussions, key readings, guest speakers such as social entrepreneurs, case studies, videos, service-learning activities, and group assignments. Students will develop an understanding of the social entrepreneurship process, the differences between social entrepreneurship and business entrepreneurship, social enterprise, and different revenue streams including the importance of sustainability. In this course, students will develop a social entrepreneurship project proposal on a social problem in collaboration with a non-profit organization in the Kansas City area.

Prerequisites: None

ENT 5567 Innovation & Entrepreneurship I Credits: 2
This course, the first of a two-course sequence, covers the entrepreneurial and innovation process from conception to birth of the new business. It looks at both process and people involved in assessing ideas, exploiting opportunities, and converting concepts into high-growth businesses. Application of the processes will be extended to both start-ups and well as new business groups within existing organizations, with an emphasis on nurturing a climate of innovation. Students will identify opportunities for high-growth potential new enterprises, develop a business plan, and present their plans to a panel of potential investors and/or senior managers.

Prerequisites: Admission to the Executive MBA program.

ENT 5571 Advanced Real Estate Finance Credits: 3
This course introduces students to the full spectrum of real estate finance and investment analysis. It helps students quantify the financial implications of various real estate decisions for individual properties as well as more strategic decision-making applied to real estate portfolios. Using a combination of experiential and incremental learning students develop the foundation skills necessary to support more advanced concepts and financial theory. The course explores time value of money, law, leverage, underwriting, discounted cash flow, investment analysis, and capital markets. Students also develop advanced modeling skills and learn how to apply state-of-the art financial packages to support decisions.

Prerequisites: RL-EST 5556.
ENT 5572 MBA Capstone Experience-Business Plan for a Startup Company Credits: 3
Class participants will develop a business plan for a startup company. The plan must demonstrate understanding of the product or service, and appropriate analyses including opportunity assessment for the new product/service, specifying the skills of the management team and the organization that the company will need to develop, the business model, the market, the industry including competitors, alternatives and choices for operations, the information systems and reports the management team will need, the milestones that investors should realistically expect the new entity to meet, and the financial requirements of the company in its early phases.

ENT 5573 Real Estate Market Analysis and Feasibility Study Credits: 3
This course helps students develop entrepreneurial, fact-based approaches to problem-solving and decision support. It incorporates experiential learning to help students deploy quantitative and qualitative approaches that incorporate the perspectives of space users, space producers, and market facilitators. Students learn how to address the goals and objectives of a particular client, while also considering the externalities and impacts such decisions have on the built environment. Students will integrate critical thinking with spatial and financial analytical methods and state-of-the-art tools to quantify market demand and to translate that demand to a spatial solution that is marketable and financially feasible.
Prerequisites: RL-EST 5556.

ENT 5576 Real Estate Property Management Credits: 3
This course explores the complexities and integration of property and portfolio management which are critical to the creation, control and capture of real estate value. Students learn how to approach real estate in a more holistic manner by integrating management functions that range from individual property types to portfolios of properties. Students learn how to incorporate marketplace factors in their decisions and apply modern portfolio theory and other tools to construct and manage properties and portfolios in a socially responsible manner. Using experiential methods students learn to apply critical thinking to solve complex property and portfolio management problems.
Prerequisites: ENT 5571.

ENT 5578 Legal Context of Real Estate Decision Making Credits: 3
This course introduces decisions involved in the development, ownership, and operation of commercial real estate and the legal issues associated with these decisions. Topics covered include: due diligence, loan application/brokerage agreements, zoning, easements, entitlements and condemnation actions, bankruptcy, commercial real estate insurance coverage, choice of business entity, income tax planning, and joint ventures.

ENT 5585 Entrepreneurial Finance and Venture Capital Investment Credits: 3
This course exposes students to the process of financing and investing in a new venture. The primary objective of this course is for students to develop a good understanding of the objectives, strategies, and challenges in financing and valuation of entrepreneurial firms through analyzing unique financial issues these firms and their investors face. Students will develop skills for assessing new venture financial viability, cash needs, funding sources, valuation, and funding structure.

ENT 5587 Special Topics Credits: 3
Special topics in entrepreneurship.

ENT 5587A Seminar In Entrepreneurship Credits: 1-6
A course on advanced and/or new topics. This course is designed to facilitate at least one of two purposes: an initial offering of a new course (prior to formal approval) or an initial and possibly final offering on a new topic. New topics include those that are contemporary, cutting edge, or advanced topics that are not currently covered by existing courses.

ENT 5587B Seminar In Entrepreneurship Credits: 1-6
A course on advanced and/or new topics. This course is designed to facilitate at least one of two purposes: an initial offering of a new course (prior to formal approval) or an initial and possibly final offering on a new topic. New topics include those that are contemporary, cutting edge, or advanced topics that are not currently covered by existing courses.

ENT 5587C Seminar In Entrepreneurship Credits: 1-6
A course on advanced and/or new topics. This course is designed to facilitate at least one of two purposes: an initial offering of a new course (prior to formal approval) or an initial and possibly final offering on a new topic. New topics include those that are contemporary, cutting edge, or advanced topics that are not currently covered by existing courses.

ENT 5587D Seminar In Entrepreneurship Credits: 1-6
A course on advanced and/or new topics. This course is designed to facilitate at least one of two purposes: an initial offering of a new course (prior to formal approval) or an initial and possibly final offering on a new topic. New topics include those that are contemporary, cutting edge, or advanced topics that are not currently covered by existing courses.

ENT 5587E Seminar In Entrepreneurship Credits: 1-6
A course on advanced and/or new topics. This course is designed to facilitate at least one of two purposes: an initial offering of a new course (prior to formal approval) or an initial and possibly final offering on a new topic. New topics include those that are contemporary, cutting edge, or advanced topics that are not currently covered by existing courses.

ENT 5591 Small Business Management Practicum Credits: 3
An integrated management course designed to examine the principles of business management applicable to solving the problems of small and medium size businesses and assisting in their development.

ENT 5595 Internship Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community.
ENT 5597 Independent Study Credits: 1-6
Independent study and research in areas of special interest under individual faculty direction.

ENT 5681 Multivariate Statistical Methods-II Credits: 3
Theoretical and research applications of MANOVA, canonical correlation, multiple discriminant analysis, factor analysis, and introduction to structural equation modeling using appropriate software. Students are expected to undertake a major research project during this class and to apply appropriate multivariate statistical analyses to their chosen academic research topic.

ENT 5682 Structural Equation Modeling Credits: 3
This course presents structural equation modeling. It includes a review of regression, as well as the study of path analysis, including model specification, methods of estimation, recursive and non-recursive models; direct, indirect, and total effects methods of estimation; single and multigroup analyses; moderators; mediators; structural equation model specification; identification, methods of estimation, second-order factor analysis, and the assessment of causal structure. Students are expected to continue a research project started in ENT 5681.

ENT 5683 Mathematical Models For Entrepreneurship Credits: 3
The purpose of this course is to provide an introduction to mathematical models in entrepreneurship and related disciplines. Classes will focus on the use of mathematical models to characterize the nature of various entrepreneurship-related decisions in complex environments. For each topic considered (e.g., RD investment decisions in new product entry, diffusion, and marketing mix variables), students will examine select examples of scholarly articles. Presentations and discussions are designed to help students understand and critique existing models and stimulate the development of new theoretical viewpoints.

ENT 5691 Doctoral Seminar In Theoretical Foundations Of Entrepreneurship I Credits: 3
ENT 5691 is designed as a broad survey of major topics in the field of entrepreneurship. Its objective is to familiarize students with some of the primary theoretical underpinnings of the field as well as some of the common and/or promising methodological approaches to the study of entrepreneurial phenomena. Topics covered in the course include a theoretical overview, entrepreneurs, environment and organizational founding. **Prerequisites:** Doctoral standing.

ENT 5692 Foundations Entrepreneurship Credits: 3
ENT 5692 is designed as a continuation of ENT 5691, providing a broad survey of major topics in the field of entrepreneurship. Its objective is to familiarize the student with some of the primary theoretical underpinnings of the field as well as some of the common and/or promising methodological approaches to the study of entrepreneurial phenomena. Topics covered in the course include: entrepreneurship's links with other disciplines, venture capital and venture capitalists, new venture strategy, new venture performance, growth processes and challenges, and entrepreneurial networks and alliances.

ENT 5693 Technology, Innovation, And Entrepreneurship Credits: 3
This seminar will explore academic literature of technology, innovation, and entrepreneurship. Specific topics include emerging technologies, evolutionary theory, building capabilities based on networks, organizational learning, technological innovation, institutional economics, network externalities, knowledge transfer, technological trajectories and path dependencies. **Prerequisites:** Doctoral standing.

ENT 5694 Doctoral Seminar In Theories Of The Firm And Strategy Credits: 3
In this course, students will become familiar with and develop an in-depth understanding of the concepts, models, and paradigms that collectively form the foundation for strategic thinking. Students will develop the ability to critically integrate findings from strategic research programs. Employing an appreciation for the interdisciplinary nature of strategic marketing and management, the purpose is to develop a keen awareness of major gaps that exist in the strategic literature. Students will strengthen the skills needed to conduct original strategic marketing research that can be published in the leading academic journals. **Prerequisites:** Doctoral Standing.

ENT 5699 Dissertation and Research in Entrepreneurship and Innovation Credits: 1-12
Dissertation research and writing in Entrepreneurship and Innovation Discipline.

ENT 5899 Required Graduate Enrollment Credit: 1

Environmental Sciences (ENV-SCI)

Courses
ENV-SCI 5550 Ecotoxicology Credits: 3
This course addresses the fundamentals of ecotoxicology, integrating the sciences of ecology and toxicology. Students will learn the biological basis for pollutant effects on individuals and populations of plants and animals, how pollutant intensity varies as a function of bioavailability, the basics of risk assessment, and how pollutant effects are modified by ecological interactions within communities and ecosystems. The ultimate goal of ecotoxicology is to predict the effects of pollution within an ecological context. **Prerequisites:** BIOLOGY 108, CHEM 211, CHEM 212R.

Euphonium (EUPHNM)
Courses
EUPHN M 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Cross Listings: EUPHN M 300.

EUPHN M 5500A Graduate Euphonium-Secondary Credits: 2
EUPHN M 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

EUPHN M 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

EUPHN M 5501 Graduate Euphonium - Master’s Performance Credits: 4
EUPHN M 5601 Graduate Euphonium - Doctoral Performance Credits: 4

Finance (FIN)

Courses
FIN 5501 Economics For Administration Credits: 3
This course is designed for graduate students in the School of Business and Public Administration. Topics include the theory and determination of national income, fiscal policy, monetary theory and policy, production and cost theory, and market structure.

FIN 5502 Corporate Financial Management I Credit: 1.5
This course provides a rigorous distillation of time value of money analysis techniques, methods which form the basic quantitative approach used in corporation finance. The three main topic areas covered during the course are the principles of time value of money analysis itself, its application to the valuation of corporate bond and equity securities, and the quantitative decision making rules utilized in corporate capital budgeting analysis. 
Prerequisites: ACCTNG 5501.

FIN 5504 Managerial Economics Credit: 1.5
This course applies microeconomic principles to for-profit and not-for-profit enterprises. Topics include: supply, demand, elasticity, equilibrium, cost and production theory, factor pricing, market structure and pricing and public policy toward business.

FIN 5505 Global Macroeconomics Credit: 1.5
Global Macroeconomics examines fiscal and monetary policies in the US as well as other countries. It considers issues of international trade, exchange rates and coordination of economic policies as well as economic integration and fiscal and financial crisis management.

FIN 5507 Corporate Financial Management II Credit: 1.5
This course provides a continuation of the study of corporate financial management principles introduced in FIN 5502. Specific topics covered in this course include the study of detailed corporate capital budgeting problems, the fundamental risk versus return paradigm encountered in financial markets, the Capital Asset Pricing Model, and the cost of investment capital for a business enterprise.

FIN 5509 Financial Management Credits: 3
An introduction to the role of financial management through the development of a conceptual framework appropriate for financial decision making. Generally, financial management is charged with the responsibility for obtaining and effectively utilizing the funds necessary for the operation of an enterprise. As such, the conceptual framework includes elements of financial planning (financial analysis, cash budgeting and profit planning), capital budgeting (rate of return and cost of capital), and basic considerations of alternative sources of funds. 
Prerequisites: Student must be enrolled in a Bloch School graduate program.

FIN 5515 Managerial Economics Credits: 2
This course studies the relationships between the economic theory and system as a whole and the ways in which their functioning is affected by the behavior of the interdependent sectors of which they are composed. Students will explore the major factors and determinants of economic prospects relevant to profit-maximizing production and pricing decisions for the firm. 
Prerequisites: admission to executive MBA program.

FIN 5532 Financial Management Credits: 3
An introduction to the role of financial management through the development of a conceptual framework appropriate for financial decision making. Generally, financial management is charged with the responsibility for obtaining and effectively utilizing the funds necessary for the operation of an enterprise. As such, the conceptual framework includes elements of financial planning (financial analysis, cash budgeting and profit planning), capital budgeting (rate of return and cost of capital), and basic considerations of alternative sources of funds. 
Prerequisites: ACCTNG 5517, DSOM 5508, and FIN 5501 (or equivalents).
FIN 5534 Thinking Critically: The Role of Incentives and Human Behavior Credits: 2
An overview of the economics of rational decision-making drawing on recent developments in behavioral economics and theory. Students learn how human beings make decisions in the presence of uncertainty, limited information and the crucial role of human resourcefulness, incentives, and trade-offs in predicting the ultimate effects of decision-making outcomes.

FIN 5535 Contemporary Techniques of Financial Analysis Credits: 2
Students learn to effectively analyze crucial financial decisions involving asset allocation and valuation. Time value of money, capital budgeting techniques, cash flow estimation, risk and return, and the calculation of a company's cost-of-capital are taught through hands-on analysis of real-world problems.

FIN 5536 The New Corporate Finance: Where Theory Meets Practice Credits: 2
Focusing on critical developments in finance theory and practice from an upper-level or “boardroom” perspective. Emphasis is on the critical financial decisions made at the highest levels of an enterprise such as agency conflicts, signaling theory, derivatives, and capital structure and dividend decisions.

FIN 5537 Enterprise Risk Management Credits: 3
Students conduct a comprehensive assessment of the physical, reputation, emotional, financial, and facilities risks associated with an organization and its events. They must also assess each risk based on its probability of occurrence and severity of consequences and make decisions about accepting, modifying, transferring, and/or eliminating risks based on those assessments.

Prerequisites: FIN 5532.

FIN 5550 Advanced Financial Management Theory And Policies Credits: 3
Advanced financial management covering topics such as working capital, financial structure, cost of capital, dividend policy and valuation. Discussions include both financial theory as well as financial policy. Includes exposure to literature central to the development of finance theory.

Prerequisites: Six hours of finance coursework beyond FIN 5532 (or equivalent).

FIN 5551 International Financial Management Credits: 3
This course analyzes present and future international financial market conditions and extends the decision-making tasks of financial management into the context of problems of the international and foreign financial systems. The financial constraints of the international business environment and their effect on standard concepts of financial management are studied along with international currency flows, capital structure problems, working capital management, foreign investment, and international banking practices.

Prerequisites: FIN 5532 (or equivalent).

FIN 5552 Global Financial Markets and Institutions Credits: 3
Students are introduced to global financial markets and institutions. Topics include equity, debt, commodity, housing, and foreign exchange markets both in the U.S. and globally. The course explores the effects of monetary and fiscal policy, with emphasis on past and current global financial crises, financial restructuring and reforms, as well as the interrelationships between financial and real economies.

Prerequisites: FIN 5532 (or equivalent).

FIN 5553 Investment Analysis Credits: 3
Development of a theoretical framework applicable to the solution of problems related to creation and management of the investment portfolio. Consideration is given to the analysis of risk, functions of security markets, sources of information, evaluation of securities, and measurement of investment return.

Prerequisites: FIN 5532 (or equivalent).

FIN 5556 Management Of Financial Intermediaries Credits: 3
This course addresses the management operations of selected financial intermediaries including commercial banks and thrift institutions. Attention is given to asset-liability structure, the development and delivery of financial services, institutional structure, legal and regulatory factors, and the dynamics of the competitive environment.

Prerequisites: FIN 5532 (or equivalent).

FIN 5557 Derivative Securities Credits: 3
This course is designed to introduce students to the basic principles of financial risk management. The student should develop a working knowledge of issues regarding both the theoretical valuation and application of derivative securities. Applications will focus on techniques designed to manage financial risks in the corporate environment. Specifically, the course will focus on using futures, options, and swaps to hedge financial risks. Valuation issues will be explored to identify theoretical pricing fundamentals that can be applied toward valuing newly developed securities.

Prerequisites: FIN 5501, FIN 5532, DSOM 5508, and ACCTNG 5517, or equivalents.

FIN 5559 Strategic Financial Management Credits: 3
This course is designed to introduce students to the basic principles of financial risk management. The student should develop a working knowledge of issues regarding both the theoretical valuation and application of derivative securities. Applications will focus on techniques designed to manage financial risks in the corporate environment. Specifically, the course will focus on using futures, options, and swaps to hedge financial risks. Valuation issues will be explored to identify theoretical pricing fundamentals that can be applied toward valuing newly developed securities.

Prerequisites: ACCTNG 5517, DSOM 5508, FIN 5501, and FIN 5532 (or equivalents).
FIN 5560 Financial Modeling Credits: 3
The primary objective of this course is to introduce students to some of the fundamental quantitative methods used in investment analysis. The student should develop a working knowledge of measuring risk and return, probability theory, sampling and estimation, hypothesis testing, correlation analysis, regression and time series analysis. The course will emphasize experimental learning by applying these concepts to real data in a spreadsheet environment.

Prerequisites: Completion of introductory coursework in accounting, economics, statistics and finance.

FIN 5561 Financial Statement Analysis Credits: 3
Students will take an in-depth look at the external financial statements that are prepared by corporations, including the tools needed to organize, summarize, and understand corporate financial data for use in decision making. Ratio analysis, trend analysis, earnings forecasting, bankruptcy predictors statistical methods important to finance, and financial data bases are among the topics that will be covered.

Prerequisites: Completion of introductory coursework in accounting, economics, statistics, and finance.

FIN 5562 Fixed Income Analysis Credits: 3
The primary objective of this course is to provide an overall view of the role of debt markets in the modern economy. The course will cover the characteristics of instruments traded in money and capital markets; determinants of and the relationships between different security prices; and international aspects of financial markets. Topics include: valuing fixed income securities, managing interest rate risk, interest rate theory, the organization of bond markets and the structure and pricing theory underlying the mortgage-related fixed income market.

Prerequisites: Graduate standing in the Bloch School, FIN 5502 (or equivalent).

FIN 5563 Valuation/Mergers and Acquisitions Credits: 3
The primary objective of this course is to introduce students to techniques used to value both exchange-traded and private firms. Students should apply these techniques to cases involving mergers and acquisitions, initial public offerings private firm valuation and the valuation of a publicly traded stock.

Prerequisites: completion of introductory coursework in accounting, economics, statistics and finance.

FIN 5564 Portfolio Management Credits: 3
The primary objective of this course is to introduce students to some of the fundamental portfolio management tools used by practicing investment professionals. The student should develop a working knowledge of issues regarding portfolio construction, asset allocation, mean-variance optimization, performance measurement, and client relationship management.

Prerequisites: completion of introductory coursework in accounting, economics, statistics and finance.

FIN 5565 Alternative Investments Credits: 3
The primary objective of this course is to introduce students to investing in alternative assets. The student should develop a working knowledge of various types of alternative investments and how they impact the risk-return profile of a portfolio. The course will cover investments in hedge funds, private equity, real estate, commodities, real assets, energy, and infrastructure.

Prerequisites: completion of introductory coursework in accounting, economics, statistics and finance.

FIN 5566 Financial Plan Development Credits: 3
Personal financial planning differs for each of us for a variety of reasons including age, family, wealth, needs, income, and personalities to name a few. Nonetheless the tax, financial, and risk environments which inspire us to set goals are similar for all of us. Financial planners must take all of these financial and nonfinancial factors into consideration as they devise a plan for their clients. Our objectives, therefore, are to study the personal financial planning process and environment, examine the questions of financial planning, learn financial planning techniques, and develop the ability to prepare integrated financial plans for our clients.

FIN 5567 Payment Systems Credits: 3
Payment systems are central to modern economies, underpinning nearly all economic exchange among consumers, businesses, and government entities. Payment systems in the U.S. have undergone fundamental changes recently. yet, these systems are among the least studied and least understood components of our economy. The purpose of this course is to provide an in-depth knowledge of U.S. payment systems and an analytical framework for evaluating and responding to ongoing changes in the payments landscape..

FIN 5568 Organizational Finance Credits: 2
Gives students a thorough introduction to financial management that blends appropriate amounts of relevant theory with practical application. Topics include discounting techniques and applications, evaluating capital expenditures, estimating cost of capital, and valuing stocks and bonds.

Prerequisites: Admission to the Executive MBA program.

FIN 5570 Introduction to Personal Financial Planning Credits: 3
Personal financial planning differs for each of us for a variety of reasons including age, family, wealth, needs, income, and personalities to name a few. Nonetheless the tax, financial, and risk environments which inspire us to set goals are similar for all of us. Financial planners must take all of these financial and nonfinancial factors into consideration as they devise a plan for their clients. Our objectives, therefore, are to study the personal financial planning process and environment, examine the questions of financial planning, learn financial planning techniques, and develop the ability to prepare integrated financial plans for our clients.
FIN 5571 Retirement Planning and Employee Benefits Credits: 3
A study of retirement and employee benefits planning, with consideration of Social Security and Medicare planning.
Prerequisites: FIN 5570 or equivalent.

FIN 5572 Income Tax Planning Credits: 3
A study of taxation, with an emphasis on federal, state, and local income taxation, as part of the financial planning process.

FIN 5573 Estate Planning Credits: 3
This course applies the principles of estate planning to real-world situations using the Internal Revenue Code and Regulations and develops strategic decision making skills in the estate, gift, and trust areas.

FIN 5574 Student Investment Fund I Credit: 1.5
In the first semester, students will help actively manage our student investment fund portfolio and will be responsible for analyzing the investment policy statement, generating performance reports and identifying assets to recommend for the portfolio. During this time students will act as industry analysts for specific portions of the portfolio.
Prerequisites: FIN 5553

FIN 5575 Student Investment Fund II Credit: 1.5
In the second semester, students will take a leadership role in managing our student investment fund portfolio and will be responsible for updating the investment policy statement, presenting performance reports and evaluating asset recommendations for the portfolio. In addition, students will actively participate in researching potential new investments.
Prerequisites: FIN 5574

FIN 5576 Fundamentals of Fintech Credits: 3
This course will introduce students to Fintech and provide an overview of the main areas in which it is disrupting finance. These areas include lending and equity investment (algorithmic lending, P2P lending and crowdfunding platforms); financial market infrastructure (cryptocurrencies, blockchain technology, smart contracts); portfolio management and financial advice (robo-investment); and financial trading (algorithmic trading, digital trading platforms). Students will learn how the new financial technologies work, how incumbents and new entrants might profit from the technologies, and how the technologies could affect the efficiency, accessibility, fairness, and security of the financial system.
Prerequisites: FIN 5532.

FIN 5580 Organizational Valuation & Financial Modeling I Credits: 2
This course will cover the concept of risk and reward and that to eliminate risk is to eliminate reward. We will delve into how management considers the entity’s risk appetite in evaluating strategic alternatives, setting related objectives and developing mechanisms to manage related risks.
Prerequisites: Admission to Executive MBA program.

FIN 5582 Seminar In Finance Credits: 3
Advanced work in financial management, investment analysis, and financial markets and institutions will form the basis for the Seminar. Each topic selected will provide the opportunity for an investigative study on the part of the student. Major problems, hypotheses, and cases, together with the literature addressing the specific topic, will serve as the springboard for classroom activity. Both written and oral reports are required.
Prerequisites: FIN 5532 (or equivalent).

FIN 5587 Special Topics Credits: 3
Special topics in finance.

FIN 5595 Internship Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community.

FIN 5597 Independent Study Credits: 1-6
Independent study and research in areas of special interest under individual faculty direction.

FIN 5899 Required Graduate Enrollment Credit: 1

Flute (FLUTE)

Courses
FLUTE 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Cross Listings: FLUTE 300.

FLUTE 5500A Graduate Flute-Secondary Credits: 2
FLUTE 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.
FLUTE 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

FLUTE 5500JC Applied Jazz Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied jazz study in an area other than, and in addition to, their primary performance study.

Prerequisites: Graduate status.

FLUTE 5501 Graduate Flute - Masters Performance Credits: 4

FLUTE 5601 Graduate Flute - Doctoral Performance Credits: 4

Foreign Language (FRN-LNG)

Courses
FRN-LNG 5899 Required Graduate Enrollment Credit: 1

French (FRENCH)

Courses
FRENCH 5500CF Courts and Culture in the Middle Ages Credits: 3
This cluster course offers an interdisciplinary approach to the study of the Middle Ages, focusing on medieval cultures in Europe. Arranged around a series of themes, the cluster will read a variety of documentary and literary texts to investigate not only the "high culture" of the courts but also the interaction of people from various social backgrounds in Western Europe.

Prerequisites: admission to the graduate program in Romance Languages.

FRENCH 5512 17th-century French Literature Credits: 3
Selected readings in the literature of the 17th century, with an emphasis on non-dramatic works.

Prerequisites: Admission to M.A. in Romance Languages and Literature program.

Cross Listings: FRENCH 412.

FRENCH 5513 18th-century French Literature Credits: 3
Emphasis on philosophical and social significance. Authors may include Marivaux, Beaumarchais, LeSage, L'Abbe Prevost, Montesquieu, Rousseau, Diderot.

Prerequisites: Admission to M.A. in Romance Languages and Literature program.

Cross Listings: FRENCH 413.

FRENCH 5514 Medieval Literature Credits: 3
Selected readings in various genres including epic, romance, theater and lyric. Emphasis will be placed on the intertextual relations and the cultural and historical context surrounding text production in the Middle Ages.

Prerequisites: Admission to M.A. in Romance Languages and Literature program.

Cross Listings: FRENCH 414.

FRENCH 5517 16th-century French Literature Credits: 3
Selected readings in prose and poetry from Marot through Astree. Authors may include Rabelais, Ronsard, du Bellay, Montaigne, Marguerite de Navarre.

Cross Listings: FRENCH 417.

FRENCH 5520 Non-Dramatic 17th-century French Literature Credits: 3
Evaluation and reading of the works of Malherbe and contemporaries, of Descartes and Pascal and contemporaries, and of the great authors at the height of the classical period.

FRENCH 5524 19th-century French Literature Credits: 3
Selected readings in various genres from Romanticism through symbolism.

FRENCH 5526 20th-century French Literature Credits: 3
Selected readings from the Belle Epoque to the contemporary period.

Cross Listings: FRENCH 426.
FRENCH 5540 Medieval Romance Credits: 3
The various movements of French medieval romance from the 12th through 15th centuries with an emphasis on the 12th and 13th centuries. Analysis of literary technique and socio-historical context will be stressed. No knowledge of Old French is assumed.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

Cross Listings: FRENCH 440.

FRENCH 5543 Early French Theater Credits: 3
An examination of the development of French theater from Late Antiquity through the Renaissance, including religious and secular drama. The focus is on literary analysis of the dramatic texts, with some consideration of theater history and dramaturgy.
Prerequisites: Admission to the MA in Romance Languages Literature program.

Cross Listings: FRENCH 443.

FRENCH 5544 Renaissance Poetry Credits: 3
French Poetry from the Grand Rhetoriqueurs through the Pleiade. Study of poetic forms, major poets and schools, and different approaches to analyzing poetry.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

Cross Listings: FRENCH 444.

FRENCH 5545 Epistolarity and the Novel Credits: 3
Explorations of the genre through the analysis of 17th- and 18th-century French novels. Introduced by a theoretical review.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

Cross Listings: FRENCH 445.

FRENCH 5546 17th-century French Drama Credits: 3
The classical period: Emphasis on Corneille, Racine and Molière.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

Cross Listings: FRENCH 446.

FRENCH 5547 19th-century French Poetry Credits: 3
The study of the poetry and dominant poetic movements of the 19th century, with special attention given to different approaches to its analysis.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

FRENCH 5548 20th century French Theater Credits: 3
Analysis of major currents of French theater of the 20th Century, with emphasis upon the postwar period and its movements.
Cross Listings: FRENCH 448.

FRENCH 5552 Medieval Poetry Credits: 3
A study of medieval poetry including religious and secular poetry, Provencal and Old French lyric, the influence of poetry in other genres such as romance and theater, later medieval poetry of the 14th and 15th centuries, as well as a discussion of the origins of the lyric.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

Cross Listings: FRENCH 452.

FRENCH 5553 Lyon, Crossroads of France and Europe Credits: 3
Lyon, Crossroads of France and Europe

FRENCH 5554 The Intellectual Origins of the French Revolution Credits: 3
Study of philosophical and political texts by Montesquieu, Rousseau, Voltaire, Diderot, etc. on government, society, language, freedom and equality. Critical study of the Enlightenment.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

FRENCH 5555 Fin-De-Siecle and Belle Epoque Credits: 3
Study of the literary, cultural and historical context of this time period in French history, for example: Symbolism, Decadence, and the years 1900-1914.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

Cross Listings: FRENCH 455.

FRENCH 5556 20th-century French Poetry Credits: 3
The study of 20th-century poetry with special consideration given to different approaches to its analysis.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

Cross Listings: FRENCH 456.
FRENCH 5561 20th century French Narrative Credits: 3
The analysis of major currents in French 20th-century narrative, especially fiction and film. Courses will be organized around narrative themes or historical events and will include social and cultural components.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

Cross Listings: FRENCH 457.

FRENCH 5563 19th-century French Fiction Credits: 3
Studies in the birth, development, and variation of French Romanticism. Readings include de Stael, Senancour, Constant, Hugo, Stendhal and Merimee. The advent of realism and naturalism in France. Readings include Balzac, Flaubert, Daudet, De Maupassant, and Zola.
Cross Listings: FRENCH 463.

FRENCH 5570 Studies in Critical Thought Credits: 3
Various currents of 20th-century literary criticism and their political and historical contexts.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

FRENCH 5571 Autobiography Credits: 3
Analysis of autobiographies and autobiographical texts such as diaries and memoirs together with theoretical texts on the genre. The concentration of different periods or issues may change from semester to semester, i.e. the art of autobiography as practiced by 20th-century writers, especially women.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

Cross Listings: FRENCH 471.

FRENCH 5572 Francophone Studies Credits: 3
Study of different national Francophone literatures. Reading may include writers from Quebec, Haiti, Africa, Louisiana, Vietnam, the French Indies, etc.
Prerequisites: Admission to M.A. in Romance Languages and Literature program.

Cross Listings: FRENCH 472.

FRENCH 5580 Special Topics Credits: 1-3
Treatment of a particular genre or area of literature or language normally not offered through regular courses. May be repeated for credit when the topic changes.

FRENCH 5589 Survey of French Theater Credits: 3
A survey of the major French playwrights and their plays from the 17th through the 21st centuries. Historical and cultural influences will be covered as well as the specificities of the genre from the perspective of how the plays are performed and how we read them.
Cross Listings: FRENCH 449.

FRENCH 5590 Directed Studies in French Literature Credits: 1-3
Intensive readings in a field or literary figure to be selected by the student in consultation with the instructor. Available only when student cannot take regularly scheduled courses.

General Practice (G-PRAC)

Courses
G-PRAC 5710 Principles Of Pedodontics For General Practice Credits: 2
A lecture course presenting the basic concepts of diagnosis and treatment of the child in a general dental practice.

G-PRAC 5716 Special Problems In General Practice Dentistry I Credits: 1-6
Courses designed to provide the student with opportunities to work with consultants and specialists on the faculty of the dental school on cases which require the attention of a specialist.

G-PRAC 5717 Special Problems In General Practice Dentistry II Credits: 1-6
Prerequisites: G-PRAC 5716.

G-PRAC 5718 Special Problems In General Practice Dentistry III Credits: 1-6
Prerequisites: G-PRAC 5717.
G-PRAC 5721 General Practice Clinic I Credits: 1-10
G-PRAC 5722 General Practice Clinic II Credits: 1-10
G-PRAC 5723 General Practice Clinic III Credits: 1-10
G-PRAC 5728 Dental Implantology Credit: 1

The course is designed to include the following topics: history of implantology, implant materials and designs, fibroosseous and osseo-integration theories, bioinert and bioactive retention, indication and case selection, technique methodology, anatomical considerations and reasons for failure, prosthetic considerations using several systems and necessary radiographic aids, surgical stent and laboratory with simulated insertion of an implant.

G-PRAC 5740 Interdisciplinary Seminar I Credit: 1

The integration of common areas of concern in the clinical disciplines of Oral and Maxillofacial Surgery, Orthodontics, Pediatric Dentistry, Periodontics and Prosthodontics as they relate to patient cases. Cases are presented that present problems in at least two clinical disciplines in the areas of Diagnosis, Treatment Programming or Therapy. The current literature is reviewed and the case discussed.

G-PRAC 5741 Interdisciplinary Seminar II Credits: 1-6
**Prerequisites:** G-PRAC 5740.

G-PRAC 5742 Interdisciplinary Seminar III Credit: 1
**Prerequisites:** G-PRAC 5741.

G-PRAC 5743 Interdisciplinary Seminar IV Credit: 1
**Prerequisites:** G-PRAC 5742.

G-PRAC 5899 Required Graduate Enrollment Credit: 1

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**Geography (GEOG)**

**Courses**

GEOG 5502 Environmental Remote Sensing and Digital Image Analysis Credits: 4
This course will provide students with innovative techniques for landscape-level environmental analysis, geographic and geological studies, earth science research, and environmental resources management using remotely sensed data including satellite images. Students will be taught basic remote sensing concepts and technical skills, including energy radiative transfer processes, in remote sensing, sensors and resolutions, computer-based image processing and classification, and remote sensing/GIS integration.

**Prerequisites:** GEOG 203.

GEOG 5503WI History and Philosophy of Geoscience Credits: 3
A survey of geoscientific thought since antiquity. The substance of geography will be sought primarily in scholarly treatises, formal analytical systems, and cartography, but the course also addresses geographical principles emerging from the history of such matters as government, law economy, religion, and material culture. Readings, lectures, discussions, research, writing.

**Prerequisites:** RooWriter.

**Cross Listings:** GEOG 403WI.

GEOG 5504 Biogeography and Landscape Ecology Credits: 3
Principles and applications of biogeography and landscape ecology, emphasizing distribution of major ecosystems and related plants and animal species on earth, biodiversity, landscape patterns and processes, and physical, biological, and human interactions. The course explores ecosystem and landscape analyses using advanced GIS, remote sensing, and spatial modeling methods for real problem solving in environmental and biological research, ecosystem conservation, and urban planning and studies.

**Prerequisites:** GEOG 203, GEOG 402 (or GEOG 5502).

GEOG 5506 Global Environmental Change Credits: 3
This course will examine the current rates of global environmental change and potential causes in the context of Earth's natural climate variability. The course will follow a seminar format. Students will read and discuss published articles on current and emerging theories of forcing mechanisms in the Earth's systems. Additional in-depth research and written evaluation are required for graduate credit.

GEOG 5507 Advanced Geographic Information Science Credits: 4
**Prerequisites:** GEOG 203.

GEOG 5508 Archaeological Field Survey Methods Credits: 3
This class offers instruction in the basic skills required to conduct field surveys in archaeology and other geosciences disciplines. In the classroom, students learn about the development of archaeology as a scientific discipline and how to recognize some of the basic field data sought by archaeologists. Students earn about mapping and land navigation techniques. The field phase of instruction includes visits to archaeological sites in the region.
GEOG 5509 Urban Geography Credits: 3
Historical development, morphology and functions of urban places, including intercity relationships and the relationship between cities and their hinterlands; emphasis on American cities. Students will complete a series of reports and a term paper.

GEOG 5510 Landscape, Language, Literature, and Law Credits: 3
An examination of the geographic underpinnings and implications of languages, literatures, and jurisprudence. The course explores languages' historic rootedness in the interactions between human beings and their surroundings; the varying geographic expressiveness and discrimination of languages; the effect and significance of literary evocations of landscapes; and the cultural and environmental geographic content of the language of law. Readings, lectures, discussions, writing.

Cross Listings: GEOG 410.

GEOG 5512 Global Tourism Credits: 3
This course is a regional survey of world tourism. Topics include the uniqueness of place, the marketing of tourist destinations, and the cultural, economic, and environmental impacts on host societies.
Prerequisites: GEOG 105 (or GEOG 200, or GEOG 202).

GEOG 5515 History and Philosophy of Cartography Credits: 3
An examination of the techniques, assumptions, psychology, and cultural implications of mapping from the Stone Age to the age of satellites and the computerized Geographic Information System. Readings, lectures, discussions, writing.
Prerequisites: Baccalaureate degree.

Cross Listings: GEOG 415.

GEOG 5526 Paleocology: Microfossils and Climate Change Credits: 3
Paleocology will focus on questions addressing past environments and past climates based on the ecology of microfossils. Micro-organisms are very sensitive to a wide variety of environmental conditions including temperature, precipitation, hydrology, water chemistry, salinity, habitat, and pollution. The fossil remains of these organisms are used as proxy indicators for reconstructing past environmental conditions, climate change, vegetation dynamics, and human impacts. Students will have the opportunity to process microfossils and make interpretations based on analysis of data.

GEOG 5520 Location Theory Credits: 3
An analysis and evaluation of the basic theories that have been developed to account for the spatial arrangements of economic activity. Emphasis on urban areas as nodes of economic interaction. Three hours lecture and discussion per week.
Prerequisites: GEOG 311, six hours in economics or urban studies.

GEOG 5530 Geoarchaeology Credits: 3
This course examines geomorphological and archaeological methods used in reconstructing sites, settlement patterns, and paleo-environments; evaluating archeological site integrity; and assessing the impact of development, with the emphasis on geomorphological evidence. No archaeological background necessary.
Prerequisites: GEOG 150, GEOG 314.

Cross Listings: GEOG 435.

GEOG 5537 Population Geography Credits: 3
An analysis of human population: how they grow, their changing compositions, and how and why people migrate from one place to another. Basic demographic processes-mortality, fertility, and migration theory and techniques for their study are discussed. The relationships between population growth and population planning, immigration, urbanization and cities, and the environment.

GEOG 5542 Quaternary Environments Credits: 3
This course reviews earth climatic history and focuses on major mechanisms for global and regional climate change. Methods of paleoclimatic reconstruction are examined, including analysis of proxy data and climate modeling. Application of these methods toward prediction of future climate change is also explored.
Prerequisites: GEOG 314 (or GEOLOGY 314).

GEOG 5544 Advanced Spatial Data Analysis Credits: 4
This course will focus on advanced computation methods for the analysis and modeling of complex and often non-deterministic processes in the spatial and environmental sciences. Students will be introduced to innovative techniques for analyzing large datasets with attribute spaces of very high dimensionality, including hyper-spectral remote sensing data. Three hours lecture and one hour computer lab per week.
Prerequisites: GEOG 444, elementary statistics, or permission of instructor.

GEOG 5546 Global Water and Sustainability Credits: 3
This course examines the physical characteristics of water and its role in Earth systems. The challenges facing societies in an era of rapidly changing climate are explored.
GEOG 5548 Satellite Climatology Credits: 4
Use of satellite observations to study the climate system. Discussions consider the development of satellite climatology, sensors, platforms and methodologies to estimate climate variables from radiance measurements. Aspects of climate that are emphasized include cloud climatologies, cloud systems, atmospheric moisture, radiation budget, and land-surface conditions. Three hours of lecture and one hour of lab per week.

GEOG 5597 Graduate Seminar in Geosciences Credits: 3
This graduate seminar examines emerging and current issues in Environmental and Urban Geosciences. Most environmental issues and their solutions are inherently multidisciplinary and are characterized by significant interactions between oceans, atmosphere, land, and society. In addition to examining these issues, this seminar engages students in the process of critically evaluating Earth and human systems studies. The course provides students with a fundamental background of today's important environmental challenges and experience doing the craft of science through critically reading, thinking, writing, and speaking.

Cross Listings: GEOLOGY 5597.

GEOG 5598 Special Topics in Geography Credits: 1-3
Advanced independent research in Cultural or Physical Geography.

Prerequisites: Baccalaureate degree.

GEOG 5598A Special Topics in Cultural Geography Credits: 1-3
Advanced independent research in Cultural Geography.

Prerequisites: Baccalaureate degree.

GEOG 5598B Special Topics in Physical Geography Credits: 1-3
Advanced independent research in Physical Geography.

Prerequisites: Baccalaureate degree.

GEOG 5598D Special Topics in Advanced GIS and Remote Sensing Credits: 1-3
Advanced independent research in geographic information science (GIS) and remote sensing.

GEOG 5598F Special Topics: Geostatistics and Modeling Credits: 1-3
Advanced independent research in geostatistics and modeling techniques.

GEOG 5598K Issues in Waste Management Credit: 1
This course focuses on the critical problems of managing the waste materials generated in our society. The course includes discussion of various types of waste—municipal solid waste, hazardous (industrial) waste, nuclear and medical wastes. Sources, handling, storage, transportation, treatment and disposal of these wastes are reviewed. Experts from government and the waste management industry give guest lectures.

GEOG 5599 Research and Thesis Geography Credits: 1-9
Students will conduct research and writing in support of a thesis topic, which will have been approved in advance by the appropriate graduate advisory committee. Credit load will also be approved in advance by the student's graduate advisor.

Prerequisites: Baccalaureate degree.

GEOG 5690 Special Research Topics Credits: 1-3
Student will produce a major research paper suitable for publication under the direction of their instructor.

GEOG 5699R Research And Dissertation Credits: 1-10
Research for dissertation in partial fulfillment of the Geosciences requirements for the Ph.D. degree.

**Geology (GEOLOGY)**

**Courses**

GEOLOGY 5507 Archeological Resources Management Credits: 3
This class examines contemporary issues managing archaeological resources. This class is intended for students seeking work in Cultural Resources Management (CRM), those already working CRM, or student anthropology, environmental studies, geology, geography, public administration and other fields likely to deal with archaeological and historical research or employment setting. This class does not require a background in archaeology.

GEOLOGY 5508 Archaeological Field Survey Methods Credits: 3
This class offers instruction in the basic skills required to conduct field surveys in archaeology and other geosciences disciplines. In the classroom, students learn about the development of archaeology as a scientific discipline and how to recognize some of the basic field data sought by archaeologists. Students learn about mapping and land navigation techniques. The field phase of instruction includes visits to archaeological sites in the region.

GEOLOGY 5509 Field Study in Archaeology Credits: 1-5
This class offers students an opportunity to attend a field school in archaeology. Students will be taught how to: design archaeological research, set-up excavation, keep a wide range of excavation records, make maps and drawings, take photographs related to excavation problems, identify and recover a broad spectrum of artifact and faunal remains, collect samples for specialized analyses and use a wide range of excavation tools. This course will also introduce students to recording and analyzing excavated materials in the archaeological laboratory.
GEOLOGY 5512 Geology and Hazardous Waste Management Credits: 3  
Nature, sources and characterization of hazardous waste; collection, transportation and disposal of hazardous wastes. Fundamentals of toxicology and risk assessment. Application of geologic principles and methods in the assessments and remediation of abandoned hazardous waste sites and contaminated aquifers. Review of selected case histories. Experts from government and private organizations will be invited to deliver guest lectures. An out-of-town field trip to a hazardous waste site is required. A term paper based on library research or an approved experimental project is required for graduate credit.  
**Prerequisites:** GEOLOGY 325, GEOLOGY 342, GEOLOGY 350.

GEOLOGY 5513 Advanced Mineral Deposits Credits: 3  
Distribution, origin and environmental implications of extractable resources including non-metallic deposits, ores, and selected energy resources.  
**Prerequisites:** GEOLOGY 312, GEOLOGY 325, graduate standing.

GEOLOGY 5516 Understanding and Living with Volcanoes Credits: 3  
This course will examine the distribution, tectonic setting, and morphology of a range of volcano types on Earth and a few examples from other planets. Students will study volcanic processes including explosive and passive processes and how we investigate them. This will involve discussion of volcanic hazards and hazard assessment, risk communication, and the challenges of volcanic crises response. The course will also cover how volcanoes impact the local and global economy and Earth’s climate.  
**Prerequisites:** GEOLOGY 5521 Advanced Methods for Earth and Environmental Science Credits: 3  
This course will provide students with an inquiry-based learning experience that focuses on the application of field methods for understanding surface and subsurface earth processes and environmental issues. Students will collect field data at off campus site, conduct periodic monitoring, and analyze samples using departmental instrumentation.  
**Prerequisites:** GEOLOGY 220 (or ENV-SCI 110R), GEOLOGY 220L (or ENV-SCI 110L).

GEOLOGY 5521 Advanced Methods for Earth and Environmental Science Credits: 3  
The study of Quaternary processes, surficial deposits, and land forms. Course content will cover both the glaciated and nonglaciated portions of the United States as well as the interrelations between Quaternary geology and urbanization. Three hour lecture. Field trips.  
**Prerequisites:** GEOLOGY 314, baccalaureate degree in geology.

GEOLOGY 5531 X-Ray Diffraction and Fluorescence Methods: X-Ray Mthds Geol/Anly Credits: 2  
Theory and practical application of x-ray diffraction and fluorescence methods in characterizing geologic materials. Two hours lecture and one 2-hour lab per week for 8 weeks.

GEOLOGY 5532 Icpms Applications in Geology Credits: 2  
Theory and practical application of Inductively-Coupled Plasma Mass Spectrometry in the geosciences and environmental sciences. Two hours lecture and discussion, and one 2-hour lab per week for 8 weeks.

GEOLOGY 5534 Hazardous Waste Operation Management Credits: 2  
Overview of federal regulations dealing with hazardous waste management, toxicology, hazard communication, site management, air monitoring, operating procedures, and health and safety. The course includes hands-on training on spill control, equipment use and emergency use and emergency response. Practical training involves physical stress and participants must be in good physical health. This course satisfies OSHA’s 40 hour training requirement for hazardous waste personnel.  
**Prerequisites:** GEOG 335 (or GEOLOGY 335).

GEOLOGY 5535 Aqueous Geochemistry Credits: 3  
This course is directed to two objectives. First it will equip the students with a basic understanding of the geochemical principles and calculations which are directly related to environmental problems and second, it will provide the student with a basic understanding of specific problem areas in environmental geochemistry.  
**Prerequisites:** CHEM 211, CHEM 212R, Baccalaureate degree in geology.

GEOLOGY 5536 Introduction to Scanning Electron Microscopy Methods Credits: 2  
Practical introduction to the use of the scanning electron microscope and its accessories, including image production, elemental analysis, and elemental mapping of solid materials. Geological applications will be emphasized, but the methods presented will be useful for microscopic examination of solid materials in any discipline. 2 hours of lecture and lab per week for 8 weeks.  
**Prerequisites:** Permission of the instructor.

GEOLOGY 5541 Environmental Geophysics Credits: 3  
Fundamental theory and near-surface applications of the geophysical methods including seismic methods, potential methods, and electrical methods. Emphasis will be placed on the use of these methods in environmental and engineering investigations, addressing such issues as water resources, contaminant transport, geotechnical properties, and archaeological protection. Course will include a field component illustrating application of selected techniques to a local environmental problem.  
**Prerequisites:** Baccalaureate degree in Geology.
GEOLOGY 5542 Electrical Methods in Environmental Geophysics Credits: 3
Fundamental theory and near-surface applications of the electrical geophysical methods; (1) electrical resistivity, (2) electromagnetics, (3) ground penetrating radar, and (4) induced polarization. Emphasis will be placed on the use of these methods in environmental and engineering investigations, addressing such issues as water resources, contaminant transport, geotechnical properties and archaeological protection. Course will include a field component illustrating application of selected techniques to a local environmental problem.
Prerequisites: Baccalaureate degree in Geology.

GEOLOGY 5546 Petroleum Geology Credits: 3
This course addresses the geological habitat of oil and natural gas, the impacts of petroleum on society, subsurface mapping techniques, and the acquisition and interpretation of subsurface and production data.
Prerequisites: GEOLOGY 220, baccalaureate degree in geology.

GEOLOGY 5551 Geotechnics Credits: 4
Integration of the basic principles and concepts from material sciences, rock and soil mechanics, and civil engineering. Mechanical properties, geologic aspects and engineering classifications of earth materials and the effects of physical forces on their engineering behavior will be emphasized. Three hours of lecture and two hours of laboratory each week. Field trips.
Prerequisites: PHYSICS 210, PHYSICS 220, GEOLOGY 350.

GEOLOGY 5555 Environmental Impact Analysis Credits: 3
A systematic analysis of the spectrum of environmental changes related to human use and occupancy in urban settings. Study of the nature of activities such as industrialization, mining, urbanization and transportation, and their effect on the specific site and general region. Methods of measuring aesthetic and economic quality of the urban areas will be explored in an attempt to facilitate writing environmental impact statements.
Prerequisites: Baccalaureate degree in geology.

GEOLOGY 5559 Inquiry-Based Field Studies for Teachers Credits: 3-6
Inquiry-based studies in environmental science, environmental chemistry and geology involving collaborations between course participants, practicing scientists and professional educators. The course is designed especially for pre- and in-service teachers of all levels and contact areas to enhance critical thinking, problem solving and process skills as defined by state and national standards. Projects will balance field and lab studies with analysis and presentation of results through electronic, oral and written means.
Prerequisites: Baccalaureate degree in geology.

GEOLOGY 5561 Geologic Mapping Credits: 3
Analysis of the stratigraphic section in the greater Kansas City area by field investigation. Compilation of descriptive data and the construction of detailed geologic maps. Practical problems to determine the most beneficial use of the land in an area that is rapidly becoming urbanized. Previous field mapping experience highly recommended.
Prerequisites: Baccalaureate degree in geology.

GEOLOGY 5570 Advanced Hydrogeology Credits: 3
This course will focus on advanced groundwater hydrology with emphasis on flow equations and computational modeling in various geologic settings. Students will be introduced to basic analytical skills to derive dynamics of groundwater flow, comprehensive understanding of aquifer characteristics, and interpretation of field based groundwater data using computational simulations.
Prerequisites: Baccalaureate degree in Geosciences, GEOL 370R, or permission of instructor.

GEOLOGY 5571 Tectonics Credits: 3
A detailed inquiry into plate tectonics and the geophysical and geological data that define the motion of lithospheric plates. Global examples of divergent, convergent, and transform plate boundaries will be studied through lectures, discussions, problem sets, and term papers.
Prerequisites: GEOLOGY 325, GEOLOGY 350.

GEOLOGY 5572 Earthquake Geology Credits: 3
This course is detailed inquiry into the study of present and past earthquakes as they are preserved in the seismological, geophysical, and geological record. Global examples of earthquakes will be studied through lectures, discussions, problem sets, term papers, field trips and field projects.
Prerequisites: GEOLOGY 350.

GEOLOGY 5597 Graduate Seminar in Geosciences Credits: 3
This graduate seminar examines emerging and current issues in Environmental and Urban Geosciences. Most environmental issues and their solutions are inherently multidisciplinary and are characterized by significant interactions between oceans, atmosphere, land, and society. In addition to examining these issues, this seminar engages students in the process of critically evaluating Earth and human systems studies. The course provides students with a fundamental background of today's important environmental challenges and experience doing the craft of science through critically reading, thinking, writing, and speaking.
Cross Listings: GEOG 5597: Graduate Seminar in Geosciences II

GEOLOGY 5598 Special Topics in Urban Environmental Geology Credits: 1-3
Individual research into practical geoscience problems in the urban environment. Provides opportunity for individual research in applied geology. Topic and method to be established by student and academic supervisor prior to enrollment.
GEOLOGY 5598A Special Topics in Urban Environmental Geology: Petroleum Geology Credits: 1-3
GEOLOGY 5598B Spec Topics in Urban Environmental Geology: Soil/Rock Mechanics Credits: 1-3
GEOLOGY 5598C Spec Topics in Urban Environmental Geology: Stratigraphy/Paleontology Credits: 1-3
GEOLOGY 5598D Special Topics in Urban Environmental Geology: Environmental Geology Credits: 1-3
GEOLOGY 5598E Special Topics in Energy and Mineral Resources Credits: 1-3
This course provides students an opportunity for advanced independent research in energy and mineral resources.
GEOLOGY 5598F Special Topics in Urban Environmental Geology - Geochemistry and Mineralogy Credits: 1-3
Special Topics in Urban Environmental Geology - Geochemistry and Mineralogy
GEOLOGY 5598G Special Topics in Urban Environmental Geology Credits: 1-3
GEOLOGY 5598H Special Topics in Urban Environmental Geology - Environmental Sci Credits: 1-3
GEOLOGY 5598I Special Topics in Urban Environmental Geology - Issues in Waste Management Credit: 1
This course focuses on the critical problems of managing the waste materials generated in our society. The course includes discussion of various types of waste — municipal solid waste, hazardous (industrial) waste, nuclear and medical wastes. Sources, handling, storage, transportation, treatment and disposal of these wastes are reviewed. Experts from government and the waste management industry give guest lectures.
GEOLOGY 5598J Special Topics in Urban Environmental Geology - Advanced independent research in geostatistics and modeling techniques.
GEOLOGY 5599 Research and Thesis: Geology Credits: 1-9
Individual directed research by the student leading to the preparation of a formal written thesis and oral defense.
GEOLOGY 5690 Special Research Topics Credits: 1-3
Student will produce a major research paper suitable for publication under the direction of their instructor.
GEOLOGY 5699R Research And Dissertation Credits: 1-10
Research for dissertation in partial fulfillment of the Geosciences requirements for the Ph.D. degree.
GEOLOGY 5899 Required Graduate Enrollment Credit: 1

Guitar (GUITAR)

Courses
GUITAR 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Cross Listings: GUITAR 300.
GUITAR 5500A Graduate Guitar-Secondary Credits: 2
GUITAR 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.
GUITAR 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.
GUITAR 5500JA Graduate Applied Jazz Studies Credits: 2
One hour lesson weekly. Jury examination is required.
Prerequisites: Graduate status.
GUITAR 5500JB Special Applied Jazz Studies Credits: 2
One hour lesson weekly. This course is for pedagogical or review purposes. A jury for comments only may be held at the discretion of the faculty.
Prerequisites: Graduate status.
GUITAR 5500JC Applied Jazz Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied jazz study in an area other than, and in addition to, their primary performance study.
Prerequisites: Graduate status.
GUITAR 5501 Graduate Guitar - Masters Performance Credits: 4
GUITAR 5601 Graduate Guitar - Doctoral Performance Credits: 4

Harpsichord (HRPCHD)
Courses
HRPCHD 5500A Graduate Harpsichord-Secondary Credits: 2
HRPCHD 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.
HRPCHD 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

Health Administration (HLTH-ADM)

Courses
HLTH-ADM 5551 Leadership and Strategy in Healthcare Credits: 3
This course provides an overview of major leadership and strategic issues in healthcare organizations in the areas of: 1) leadership and organizational dynamics, 2) strategic thinking and planning, 3) population health and health policy, 4) human resources, 5) performance management, and 6) organizational ethics. The course is eligible for inclusion in the Executive MBA program.
Prerequisites: Instructor approval required.

HLTH-ADM 5552 Managing Healthcare Organizations Credits: 3
This course provides an overview of major issues and essential tools in managing healthcare organizations in the areas of: 1) legal and regulatory issues that confront a healthcare organization, 2) healthcare quality and data analysis, 3) patient safety, 4) risk management, 5) process management, 6) healthcare economics, 7) cost and comparative effectiveness, 8) fundamental principles of financial management. The course is eligible for inclusion in the Executive MBA program.
Prerequisites: Instructor approval required.

HLTH-ADM 5571 Financial Management Issues: Health & Human Services Organizations Credits: 3
This course is intended to provide an overview of the financial management problems of health and human services organizations. A broad range of topics is examined: financial statements, ratio analysis, cost accounting, reimbursement and pricing, management of working capital, budgeting and programming, capital financing, and cash management.

HLTH-ADM 5572 Quality and Safety in Healthcare Credits: 3
Overview of the quality, safety, and process management concepts, approaches, and issues relevant to healthcare delivery settings, including use of analytical techniques used to identify and mitigate contributing factors and process management tools that enable healthcare organizations to achieve their quality and safety goals.

HLTH-ADM 5573 Health and Social Equity Credits: 3
Examines the complex relationship between the social and political environment and health outcomes. All policy is health policy – economic, transportation, natural and built environments, schools. This course examines how social equity shapes health behaviors and how the life odds in different communities expose the historical legacies of past injustices. Only ten percent of health disparities are explained by access to care, although health care and health insurance dominate the public conversation. Draws on guest speakers, books, journal articles, popular press, film and art; as varied as are the social determinants of health, so are media that explore those relationships.

HLTH-ADM 5577 Health Service Administration And The Health Professions Credits: 3
The development of the health professions and occupations is examined as their internal and external relationships influence the structure of health care organizations and the services provided to clients. The focus of the course is on problems that administrators may encounter as they attempt to negotiate services for clients, build professional coalitions, and provide leadership within or outside health care institutions.

HLTH-ADM 5578 The Evaluation And Control Of Health Services Credits: 3
This course focuses on developing evaluative skills associated with controlling the level and costs of health services. Epidemiologic concepts are introduced using clinical and community health examples. The concepts of “at-risk” clients and populations are reviewed, and various attempts to measure risk are assessed. Issues relating to quality assurance are discussed, along with several examples of cost-effectiveness analysis.

HLTH-ADM 5580 Economics of Health and Medicine Credits: 3
A course designed to discuss economic analysis of the development of the medical market, organized medicine and the structure of the health delivery systems. The problems of the medical market will be analyzed, the role of insurance will be investigated and alternative public policies will be studied.

HLTH-ADM 5581 Health Policy in the United States Credits: 3
This course helps students develop an understanding of the determinants of health, major current health policy issues, and health policy making in the United States. The public policy process and its effects on the organization, financing, and delivery of health care are examined in detail. The roles of key players in health policy formulation and the public policy responses to current health policy are also examined.

HLTH-ADM 5586 Independent Study Credits: 1-6
Independent study and research in areas of special interest under individual faculty direction.
HLTH-ADM 5587 Special Topics Credits: 3
This course is designed to facilitate one of two purposes: an initial offering of a new course (prior to formal approval) or an initial and possible only offering of new topics.

HLTH-ADM 5595 Internship Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community.

Health Professions Education (HPRE)

Courses

HPRE 5500 Leadership and Administration in Health Professions Education Credits: 3
Current approaches to academic leadership within the context of health professions education. Topics include management skills, problem solving, communication, group skills, motivation, managing conflict, and delegating. Attention to developing skill in presenting, interviewing and in facilitating meetings. Focus on application within the context of health professions education.

HPRE 5508 Principles and Methods of Research Credits: 3
Investigate the role and importance of quantitative, qualitative and mixed-methods research in the health professions. Primary goals are to develop the knowledge and skills to read and interpret educational research in the health professions and to develop a plan to conduct research projects.

HPRE 5522 Curriculum Design in Health Professions Education Credits: 3
Examination of the theory and strategies for the development, implementation, and evaluation of curricula in health professions education. Focus on contextual factors, learner needs, current models, outcome-based approaches, leadership, and faculty development for design and delivery.

HPRE 5530 Current Issues in Health Professions Education Credits: 3
Consideration of the major social, historical, educational, professional, and cultural issues that affect health professions education today. Focus on investigation of various topics as linked to learning and teaching in the health professions. This course will provide the foundations for the Certificate in Health Professions Curriculum and Evaluation.

HPRE 5535 Community Engagement in Education Credits: 3
Provides a foundation grounded in examination of the forces and factors that shape successful community engagement projects associated with measurable outcomes. Students will apply education concepts in developing a project with community partners to identify needs and implement a health improvement project.

HPRE 5540 Independent Study Credits: 1-3
Focused readings and/or special research project in an area selected by the graduate student in consultation with the advisor.

HPRE 5550 Assessment in Health Professions Education Credits: 3
Focus on the design, implementation and evaluation of tools for assessing student learning and performance in health professions education. Consideration of validity, reliability, writing test items, survey design, checklists, observational assessment, simulations and rubrics. Emphasis on best practices, assessment challenges, and on the effective implementation of comprehensive assessment programs in health professions education.

HPRE 5560 Teaching in Health Professions Education Credits: 3
Emphasis on learning and teaching theories and current research in health professions education as applied to instructional methods, delivery, learning contexts. Focus on individual differences, mentoring and tutoring, and on teaching in clinical, small group and large group situations.

HPRE 5566 Teaching about Culture and Health Credits: 3
The course begins with a foundation in cultural competency for health profession educators including content about social determinants of health, health disparities and culturally appropriate care. Curriculum development and instructional design topics including small group facilitation, active learning, case-based learning, use of narrative and media, distance learning, debriefing and assessment are specifically tailored for teaching cultural competency in health professions education.

Prerequisites: HPRE 5560, HPRE 5522, HPRE 5550

HPRE 5580 Program Evaluation in Health Professions Education Credits: 3
Applied research as linked to program development and evaluation in health professions education. Topics include needs assessment, summative and formative evaluations, evaluation paradigms, methodologies, data collection, data analysis, reporting findings. This course is project-based.

Prerequisites: EDUC-R&P 5508.

HPRE 5588 Learning Portfolio in Health Professions Education Credits: 1-3
Learning Portfolio in Health Professions Education (HPRE) is an individualized course which provides the opportunity to document and reflect on academic and applied work related to the learning outcomes of the Master of Health Professions Education program. Students engage in a process of selection, documentation, reflection, and collaboration with the goal of developing deeper understandings regarding their educational development, accomplishments, and application. The course may be taken for 1-3 credit hours per semester, although the full three credit sequence is required.

Prerequisites: Enrollment in the Master's in Health Professions Education program.
HPRE 5599 Summer Conference in Health Professions Education Credits: 3
The Summer Conference in Health Professions Education provides an opportunity for second year students in the Masters in Health Professions Education program to design, deliver and assess a one day, "mini" conference for area health professions educators. Students will work collaboratively, under faculty guidance, to design objectives, organize resources, develop timelines, publicize, deliver and evaluate a conference designed to reflect a particular theme in health professions education. The conference will consist of educational research presentations, hands-on, skill-based workshops, consultations, and literature/resource dissemination. It will serve to showcase student accomplishments and skills and be open to the public.

HPRE 5899 Required Graduate Enrollment Credit: 1
Required enrollment for students who will graduate during a term when they are not enrolled in a course. Option for students who will complete assignments in order to be eligible for graduation.

History (HISTORY)

Courses
HISTORY 5500B Special Topics in History For Graduate Studies Credits: 1-3
HISTORY 5500BB Special Topics in History for Graduate Students Credits: 3
HISTORY 5500C Special Topics in History For Graduate Studies Credits: 3
HISTORY 5500CL Cluster Course: Nordic Culture Credits: 3
HISTORY 5500CP Special Topics in History For Graduate Studies Credits: 1-3
HISTORY 5500CZ Special Studies History Credits: 1-3
HISTORY 5500D Special Topics in History For Graduate Studies Credits: 1-3
HISTORY 5500E Special Topics in History For Graduate Studies Credits: 3
HISTORY 5500G Special Topics in History for Graduate Students Credits: 3
HISTORY 5500GB Special Topics in History for Graduate Students Credits: 3
HISTORY 5500GR Special Topics in History for Graduate Students Credits: 3
HISTORY 5500H Special Topics in History For Graduate Students Credits: 1-3
HISTORY 5500JCA Special Topics in History for Graduate Students Credits: 3
HISTORY 5500LA Special Topics in History for Graduate Students Credits: 3
HISTORY 5500P Special Topics in History for Graduate Students Credits: 1-3
HISTORY 5500R Special Topics in History for Graduate Studies Credits: 1-3

Cross Listings: HISTORY 400.

HISTORY 5500RC Special Topics in History For Graduate Studies Credits: 1-3
HISTORY 5500RD Special Topics in History For Graduate Studies Credits: 1-3
HISTORY 5500RJ Special Topics in History For Graduate Studies Credits: 1-3
HISTORY 5500SS Special Topics in History For Graduate Studies Credits: 1-3
HISTORY 5500W Special Topics in History for Graduate Students Credits: 3

HISTORY 5500Z Special Studies: Labor in Industrial America Credits: 3
This course examines the history of work and the working class in the U.S. from 1877 to the present. We will focus on the transformation of the workplace, the rise of the union movement, the nature of cultural and political organizations, workers' relationships with other social groups, and the role played by gender, race, and ethnicity in uniting or dividing the working class.

HISTORY 5501A Religion in America Credits: 3
An in-depth examination of selected aspects of the history of religions in America from the colonial period to the present. Special emphasis will be given to methodological issues in the study of American religious history.

HISTORY 5502 America, 1000-1763: The Formative Era Credits: 3
Early American history encompasses the formative era of many institutions and attitudes which still persist in present-day America. A study of how these patterns and policies emerged will enlighten us as to our current ways our society seeks to adapt to change.

HISTORY 5503 America, 1763-1783: The Revolutionary Heritage Credits: 3
The American Revolution created American history by creating a new nation. What the American Revolution was depends to a large extent upon what Americans think they are or ought to be. The goals of this course, therefore, are twofold: (1) to probe the nature, causes and consequences of the American Revolution; (2) to assess the intentions and behavior of both the Framers of the Constitution in 1763-1783 and the inheritors of modern America.
HISTORY 5504 America, 1783-1828: The National Experience Credits: 3
Cross Listings: HISTORY 304.

HISTORY 5505 America, 1828-1852: The Jacksonian Period Credits: 3
Cross Listings: HISTORY 305.

HISTORY 5506 America, 1850-1877: Civil War and Reconstruction Credits: 3
Cross Listings: HISTORY 306.

HISTORY 5506A History of Christianity to Middle Ages Credits: 3
This course examines the historical and theological development of Christianity from its origins to the High Middle Ages. The main themes follow the mechanisms and conditions shaping Christianity’s expansion into a major social, institutional, and intellectual force with a focus on pattern of crisis and reform. This course is based on the study of primary sources (both texts and objects) and modern scholarship.

HISTORY 5507 America 1877-1917: Development of Industrial America Credits: 3

HISTORY 5507A The History of Christianity from the Middle Ages to the Present Credits: 3
This course examines the historical and theological development of Christianity from the High Middle Ages to the present. The main themes follow the mechanisms and conditions shaping Christianity’s expansion into a major social, institutional and intellectual force with a focus on patterns of crisis and reform. This course is based on the study of primary sources (both texts and objects) and modern scholarship.

HISTORY 5508A America 1914-1945: The Era of the World Wars Credits: 3
Cross Listings: HISTORY 307B.

HISTORY 5508B America 1945-Present: Our Times Credits: 3
Cross Listings: HISTORY 308B.

HISTORY 5511 Medieval Civilization I Credits: 3
Medieval Civilization I

HISTORY 5512 Medieval Civilization II Credits: 3
Medieval Civilization II

HISTORY 5512A Medieval Women & Children Credits: 3
This course explores the roles of women in the social, economic, political, and cultural environments of medieval and early modern Europe. We examine the lives of women in all areas of life, from the ordinary to the extraordinary, in urban and rural environments, from the centers of religious and political power to the margins of society. Focus will be on the world of work for urban and peasant women and on the social and legal institutions of marriage, kinship, and the family. The course makes extensive use of primary source by and about women during this period.

HISTORY 5513 Renaissance Credits: 3
Cross Listings: HISTORY 413.

HISTORY 5514 Reformation Credits: 3
Cross Listings: HISTORY 414.

HISTORY 5515B 17Th And 18Th Century European History Credits: 3
This course is designed to present the upper-division undergraduate with a firm grasp of the major intellectual, cultural, political and economic development of 17th and 18th century Europe. It considers the bitter Thirty Years War in Century Europe, the rise of the Netherlands, the fall of Italy and Spain, the rise of constitutional and absolutist styles of government, the scientific revolution, the colonization by Europeans of the Pacific and Indian Ocean Basins, Enlightenment political philosophy, the Agricultural Revolution, and the French Revolution. Also offered for undergraduates as 415B. Graduate students will be held to a higher standard in terms of additional, in-depth historiographic research, writing, and discussion.

HISTORY 5516 The French Revolution and Napoleon Credits: 3
Cross Listings: HISTORY 416R.

HISTORY 5517 19th Century European History Credits: 3
This upper-division course will survey significant trends in warfare, politics, economics, social relations and culture in 19th century Europe, paying particular attention to the rise of modern ideologies and identities, world hegemony, and the social technologies of dehumanization that foreshadowed the unprecedented inhumanities of the 20th century. Graduates will be held to a higher standard in terms of additional, in-depth historiographic research, writing, and discussion.
Cross Listings: HISTORY 417R.
HISTORY 5518 20th Century European History Credits: 3
This upper-division course traces the history of Europe in the 20th century. It will survey significant trends in warfare, politics, economics, social relations and culture, paying particular attention to the issues of modernity and postmodernity, imperialism and decolonization, dehumanization and genocide as well as the role of ordinary people in these systems of mass destruction. Graduate students will be held to a higher standard in terms of additional, in-depth historiographic research, writing, and discussion.
Cross Listings: HISTORY 418R.

HISTORY 5519 Contemporary European History: 1950-2000 Credits: 3
This upper-division course traces the history of Europe in the period of living memory. It will survey significant trends in warfare, politics, economics social relations and culture, paying particular attention to the rise of globalization and the condition of postmodernity, decolonization and neo-colonization, European unification and everyday life. Graduate students will be held to a higher standard in terms of additional, in-depth historiographic research, writing, and discussion.
Cross Listings: HISTORY 419R.

HISTORY 5521 Oral History Credits: 3
This course focuses on the methods, theories, ethics, practices, and applications of tools in documenting and recovering the experiences of people hidden from the "traditional records." Through lectures, readings, discussions, and fieldwork, students will learn the various steps in developing a robust oral history project. Students will go out into the community to capture the histories of communities in Kansas City.

HISTORY 5526R The Scientific Revolution 1500-1700 Credits: 3
This course will survey European crime, criminal procedure, policing and punishment between 500 and 1900. Particular attention will be given to changing methods of proof (oaths, ordeals, juries); changing type of criminal activity (banditry, vagrancy, witchcraft, professional theft) and changing penal strategies (the stocks, breaking on the wheel, the workhouse, the prison, the penitentiary). English experiences are emphasized.

HISTORY 5526 Modern Latin America Credits: 3
This course studies social, political, economic and cultural trends in Latin America in the nineteenth and twentieth centuries. Discussion topics include nation building after Independence with an emphasis on gender and race in the creation of national identities and new forms of social stratification; integration of national economies into the world economic system; the expansion of political participation and citizenship; immigration (national and transnational) and the tensions caused by the forces of modernization and tradition. Although the purpose of the course is to provide a general background for a large and diverse region (more than 20 countries), case studies from Argentina, Mexico and Brazil will illustrate the above-mentioned themes and will provide the basis for a comparative regional perspective.

HISTORY 5527 The Darwinian Revolution, 1650-1900 Credits: 3
Cross Listings: HISTORY 426R.

HISTORY 5528B History Of The Body Credits: 3
This advanced course will explore the new field of the history of the body, with particular attention to sexuality and gender. Topics will include the history of sexualities, the body and society, body disciplines, medical practices and representations of illness, beauty, and fashion, and the relationship between sexualities and nationalisms.

HISTORY 5528A History Of The Body Credits: 3
This advanced course will explore the new field of the history of the body, with particular attention to sexuality and gender. Topics will include the history of sexualities, the body and society, body disciplines, medical practices and representations of illness, beauty, and fashion, and the relationship between sexualities and nationalisms.

HISTORY 5528B Women & Medicine:Patients & Practitioners From Antiquity-Present Credits: 3
This course explores, in a selective fashion, the role of women in Western Medicine both as health care providers and patients. The subject of the history of medicine is too broad to be covered comprehensively in a semester, and so we will focus on diseases or physical conditions which were believed to be limited to women-childbirth, certain mental health conditions, reproductive health, breast cancer-as well as the increasing marginalization of women within the profession of health care providers to those branches concerned primarily with "women's problems.

HISTORY 5531 Medieval England, 1066 to 1485 Credits: 3
Cross Listings: HISTORY 431R.

HISTORY 5532 Tudor-England, 1485-1688 Credits: 3
This course covers the history of England from the accession of Henry VII in 1485 to the crowning of William and Mary in the Glorious Revolution. Its main emphasis is the Tudor dynasty 1485-1603 with special reference to the transformation of England into a modern state, Re-Reformation, the role of Parliament, etc. The course concludes with the major characteristics of the early Stuart period.

HISTORY 5533 History of Britain 1603-1832 Credits: 3
This course analyzes the rise and fall of the Stuart dynasty and the effects of civil war, rebellion, and religious turmoil on the peoples of Britain. The domination of politics and culture by the aristocracy in the eighteenth century is examined. The rise of the Navy due to constant warfare and the exploration of the Pacific are discussed. The monarchy of George III, the loss of the American colonies, and the wars with Napoleon are examined. Finally, the Agricultural and early Industrial Revolutions are considered through an analysis of the social changes they brought in Britain and the Empire.

HISTORY 5534 History of Technology Credits: 3
The course examines technology as it shapes and is shaped by human society. Students will consider technology as a product of historically-specific and sometimes overlapping contexts shaped by culture, economics, natural environments, and social processes.
HISTORY 5536 Modern German History: 1890-1990 Credits: 3
This course traces history of Central Europe from the fall of Bismarck to the reunification of Germany one century later. It will ask students to think critically about the relationship between state and society, elites and ‘ordinary’ Germans, in the various German-speaking regimes that existed over the course of this era: two empires, two interwar republics, two fascist dictatorships, and three post-fascist republics. All assigned readings will be in English; a background knowledge of European history is recommended.

HISTORY 5537 Nazi Germany Credits: 3
Nazi Germany

HISTORY 5544 Islam & the Arabs: The Formative Period Credits: 3
Cross Listings: HISTORY 444R.

HISTORY 5545 The Ottoman Empire in the Middle East to WWI Credits: 3
Cross Listings: HISTORY 445.

HISTORY 5546 The Middle East from World War I to the Present Credits: 3
Cross Listings: HISTORY 446R.

HISTORY 5548 Missouri/Kansas Border Wars Credits: 3
This course explores the history of the Civil War on the Missouri/Kansas border, where residents first shed blood over the issue slavery. An exploration of this most uncivil of wars provides insight into the ways in which societies can be fragmented by ideology and ultimately rebuilt upon different lines. Prerequisites: undergraduate degree.

HISTORY 5549 Civil War in Memory and Film Credits: 3
This course explores how the era of the Civil War and Reconstruction has been portrayed in film, literature, and art, and if the popular memory of the war accurately reflects the history. We also will discuss how the understanding of this pivotal event in American History has changed over time and how cultural artifacts often say more about the time in which they were produced than the actual history of the Civil War.

HISTORY 5552 Latin American History through the Movies Credits: 3
This course explores the national cinemas and film industries of various regions in Latin America. Students will analyze films both as artistic endeavors and as sociological documents that provide a window into the socio-historical context of the nation in question. This course will also examine the history of Latin American cinema from the beginnings of sound to present.

HISTORY 5554 Women in Modern America Credits: 3
Cross Listings: HISTORY 354R.

HISTORY 5556 Rise of the City in the U.S. Credits: 3
Cross Listings: HISTORY 356.

HISTORY 5556R Kansas City: History of a Regional Metropolis Credits: 3
Cross Listings: HISTORY 356R.

HISTORY 5557 The American West Credits: 3
Cross Listings: HISTORY 357.

HISTORY 5558 Black Civil Rights in the 20th and 21st Centuries Credits: 3
This course examines the fight for black civil rights in the United States in the 20th and 21st centuries, focusing on the Jim Crow period, the fight to end segregation, and the enduring problem of race in the United States.

HISTORY 5558R History of the American South Credits: 3
History of the American South

HISTORY 5559 World War II Film and Propaganda Credits: 3
This course examines film and propaganda, including posters, political cartoons, speeches, and other media, created in prewar or wartime conditions by both the Allies and Axis powers from 1933 to 1945 as it affected World War II.

HISTORY 5561R American Foreign Relations Credits: 3
Cross Listings: HISTORY 361.

HISTORY 5562J Japanese Civilization Credits: 3
A survey of Japanese civilization and cultural history from the prehistorical period to the present. Emphasis on the interplay between religion, the arts, politics, and social structure.

HISTORY 5563R Military History of the U.S. Credits: 3
Military History of the U.S.

HISTORY 5566R American Economic History Since 1865 Credits: 3
The course deals with the emergence of Industrial America since 1865. It will cover the rise to dominance of the large modern corporation, with the problem of economic and social instability and stability, with the rise of trade associations, cartels, and government regulation in an unstable economy, and with the evolution of American economic policy and national economic planning.
HISTORY 5566RR American Labor History Credits: 3
This course examines the history of work and the working class in the U.S. from 1750 to the present. We will focus on the transformation of the workplace, the rise of the union movement, the nature of cultural and political organizations, workers' relationships with other social groups, and the role played by gender, race, and ethnicity in uniting or dividing the working class.

HISTORY 5569 Women and Work in Early America Credits: 3
This course examines the ways in which gender, race, region, and class have shaped the historical experiences of American women. Students will trace women's lives from pre-European contact to 1877 through an examination of a wide variety of social, cultural, economic, and political forces and factors.

HISTORY 5570 Introduction to Material Culture Credits: 3
Cross Listings: HISTORY 370.

HISTORY 5570R Ancient Egypt Credits: 3
Cross Listings: HISTORY 470.

HISTORY 5571 American History Through Film Credits: 3
This course will move through the twentieth century and highlight major themes and developments that reveal the contours of American history as depicted in film. Students will examine the ways in which filmmakers have presented history, paying particular attention to the presentation of political, cultural, and social conflicts.

HISTORY 5571R Ancient Greece Credits: 3
Cross Listings: HISTORY 471.

HISTORY 5572R Ancient Rome Credits: 3
Cross Listings: HISTORY 472.

HISTORY 5574 Late Antiquity: The Transformation of the Mediterranean World (200-600 AD) Credits: 3
The decline of the Roman Empire and the barbarian invasions transformed the Mediterranean and European worlds, forming the foundation of Europe and the Islamic world. Students will investigate the multicultural society of Late Antiquity and become familiar with the primary sources for the period.

HISTORY 5575 Ancient Israel Credits: 3
Judaism has had a tremendous impact on our civilization and yet most Americans are only dimly aware of its origins and development. This course will trace the roots of the Jewish religion in its historical context from its beginning through the formation of rabbinic culture. The rise of Christianity will be examined in its original Judaic context, and recent discoveries, particularly those pertaining to the Dead Sea Scrolls, will be interpreted.

HISTORY 5575R The History of Ancient Israel Credits: 3
The History of Ancient Israel

HISTORY 5576R Medieval Jewish History Credits: 3
Cross Listings: HISTORY 476.

HISTORY 5577R Modern Jewish History Credits: 3
Cross Listings: HISTORY 477.

HISTORY 5578R The Holocaust and the State of Israel Credits: 3
The Holocaust and the State of Israel

HISTORY 5579 Public History: Theory and Method Credits: 3
This course explores the theoretical and methodological challenges that surround the public preservation and presentation of history in spaces like museums and historical societies. Students will learn the skills professionals use to communicate historical scholarship to wider audiences and will grapple with the issues around expanding history's stakeholders.

HISTORY 5580 The History Of The American South I Credits: 3
A study of the political, intellectual, cultural, economic, and social development of the American South up to and including the Civil War. Special topics discussed will be the plantation system, slavery, abolition, secession, the Confederacy and the interaction of the region with the nation.

HISTORY 5581 Research Methodologies Credits: 3
An introduction to a variety of research tools and techniques including such topics as evidence, critical method, verification, bibliography, book review, computers, statistics, and archival methods.

HISTORY 5581GR How To - History I Credits: 3
This foundational course in the doing of history will use the "great books" of historical scholarship to introduce graduate students to historical questions, methods, theories, and rhetorical strategies. The goal of the course is for the student to learn how to engage in historical criticism and formulate historical questions for themselves. This required course must be taken in the first year of graduate study in history.

HISTORY 5582 Colloquium In American History I Credits: 3
These courses are designed to acquaint the graduate student with the writings and theories of major American historians. Faculty lectures are combined with student bibliographical essays and the reading of important historical works in order to prepare the student for the final examination taken upon completion of M.A. course work. Books read in the course compose a large proportion of the departmental reading list.
HISTORY 5582GR How To - History II Credits: 3
This foundational course in the doing of history will introduce graduate students to professional obligations and research methodologies of academic historians. Pragmatic in focus, it will prepare students for all stages of research and teaching through all aspects of an historical career from graduate school to full professorship or other directions. This required course must be taken in the first year of graduate study in history and it fulfills the SGS recommendation for ethical instruction.

Prerequisites: HISTORY 5581GR.

HISTORY 5583 Colloquium In American History II Credits: 3
These courses are designed to acquaint the graduate student with the writings and theories of major American historians. Faculty lectures are combined with student bibliographical essays and the reading of important historical works in order prepare the student for the final examination taken upon completion of M.A. course work. Books read in the course compose a large proportion of the departmental reading list.

HISTORY 5583GR Medieval Methods & Paleography Credits: 3
This course examines the methodology and historiography of Medieval and Renaissance Studies. Through an introduction to paleography, the study of handwritings, it prepares students for advanced work in these fields. Using an interdisciplinary approach, this course examines the historical and cultural settings for texts, their physical form and production, as well as the tradition of textual transmission in the medieval and early modern world. In addition to gaining familiarity with many different types of primary sources, such as literary, artistic, legal, and notarial sources, students will be exposed to methods for archival work in various European nations.

HISTORY 5584R Colloquium In European History I Credits: 3
The European History Colloquium I will examine some of the crucial problems or watersheds in European history from antiquity through the Reformation. Course requirements include weekly discussions on specific topics and a research paper or project due by the end of the semester.

HISTORY 5585 Colloquium In European History II Credits: 3
The European History Colloquium II will examine some of the crucial problems or watersheds in European history from the Reformation through the 20th century. The course seeks to provide an in-depth study of specific topics and of the associated bibliography.

HISTORY 5585GR Colloquium in U.S. History Credits: 3
Students read broadly in the historiography of a particular historical problem, place, period, or specialization in U.S. History in order to master the relevant literature and hone their skills of historical criticism.

Co-requisites: HISTORY 5581GR.

HISTORY 5586GR Colloquium in World History Credits: 3
Students read broadly in the historiography of a particular historical problem, place, period, or specialization in world history in order to master the relevant literature and hone their skills of historical criticism.

Co-requisites: HISTORY 5581GR.

HISTORY 5587R Research Seminar Credits: 3
Students in this course will produce a major research paper under the direction of the instructor: a self-contained thesis chapter, an article for publication or the equivalent.

HISTORY 5587RA Research Seminar Credits: 3
HISTORY 5587RB Research Seminar Credits: 3
HISTORY 5590 History Of The American South II Credits: 3
A study of the political, intellectual, cultural, economic, and social development of the American South since the Civil War. Topics discussed will be the molding of a "New South:; twentieth century internal developments and the interaction of the region with the nation.

HISTORY 5591 Archival Methods Credits: 3
HISTORY 5592 Public History Internship Credits: 1-3
HISTORY 5593 Museum Studies Credits: 3
This course is designed to acquaint students with specific careers in museums and historical agencies; to introduce students to the wide range of operating issues facing those working in the museum profession on a day-to-day basis; and to familiarize students with the organizations, reference works and resources available to develop the skills and training required for those who choose to make this their profession.

HISTORY 5594 Public History and New Media Credits: 3
This course provides students with an understanding of how new media can advance the work of cultural heritage. While contributing to an ongoing digital project, the course will consider how historians utilize digital technology to analyze primary sources as well as how museums use social media to reach broader audiences.

HISTORY 5597 Non-Thesis Research/Reading Credits: 1-6
Individual direction of student reading or research by selected, consenting faculty. This course can be taken only when faculty supervision is unavailable in colloquia or seminars.

HISTORY 5599R Thesis Credits: 1-6
A contribution to knowledge based upon extensive research and reflective of careful analysis. Before writing a thesis, the student must clear the topic and research design with the Supervisory committee.
HISTORY 5680 Doctoral Colloquium Credits: 3
This course will examine the writings and theories of major historians in a particular field of history. The authors, works and intellectual currents which form the basis of the colloquium will vary from semester to semester, depending upon the professor's expertise and design for the course.

HISTORY 5687 Doctoral Research Seminar Credits: 3
Students in this course will produce a major research paper under the direction of the instructor. This shall consist of a self-contained chapter of the dissertation or a work of publishable quality. May be repeated for credit.

HISTORY 5687RB Doctoral Research Seminar Credits: 3
Students in this course will produce a major research paper under the direction of the instructor. This shall consist of a self-contained chapter of the dissertation or a work of publishable quality. May be repeated for credit.

HISTORY 5697 Doctoral-Level Independent Reading Credits: 1-6
Individual reading under the supervision of members of the History Doctoral Faculty in preparation for the Comprehensive Examination for the Ph.D.

HISTORY 5699R Dissertation Credits: 1-15
Course credits in dissertation.

HISTORY 5899 Required Graduate Enrollment Credit: 1

HISTORY 5990 Capstone Credits: 1-6

Horn (HORN)

Courses
HORN 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

Cross Listings: HORN 300.

HORN 5500A Graduate Horn-Secondary Credits: 2
HORN 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

HORN 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

HORN 5501 Graduate French Horn - Masters Performance Credits: 4
HORN 5601 Graduate Horn - Doctoral Performance Credits: 4

Humanities (HMNTY)

Courses
HMNTY 5510 Methods in Critical Theory Credits: 3
Course introduces students to influential modern techniques of reading and interpretation, not only of literature but also of culture or visual art. Methods will themselves be seen in historical and social context, and theoretical texts may be subject to rhetorical analysis. Undergraduates only with instructor's permission

Law (LAW)

Courses
LAW 8501 Contracts I Credits: 3
Formation and performance of simple contracts; consideration; express and constructive conditions, excuse of conditions; remedies for breach; contracts for benefit of third parties; assignment; impossibility of performance and discharge.

LAW 8502 Contracts II Credits: 3
Prerequisites: LAW 8501.

LAW 8511 Torts Credits: 3
Wrongs to the person and to property; legal remedies through which compensation or other relief may be obtained.
LAW 8513 Defamation, Privacy, Relational & Emotional Torts Credits: 2-3
A focus on word torts, emotional injuries, and torts stemming from relational duties of care. Defamation topics covered will include private and public official and public figure plaintiffs, as well as tactical aspects of defamation actions and privileges. Privacy torts explored will be false light, public disclosure of private facts, intrusion and seclusion, and appropriation of name or likeness. The majority of the course will involve coverage of special or limited duties of care arising from contractual or professional relationships (such as medical and legal malpractice), landlord liability, sexual harassment in employment, familial and governmental immunities, prenatal injuries, negligent infliction of emotional distress, as well as theories of vicarious liability for the torts of others.

LAW 8521 Civil Procedure I Credits: 3
Pleading; joinder of parties and claims; pre-trial motions; discovery; summary judgment; pre-trial and trial procedure; post trial motions.

LAW 8522 Civil Procedure II Credits: 2-3
Court systems; personal jurisdiction and venue; federal jurisdiction; choice of law; preclusion; appellate procedure

LAW 8522D Discovery Practice in Civil Litigation Credits: 1-3
This course focuses on the various discovery techniques which are commonly used in federal civil practice, and also compares state procedures. General topics include the uses of discovery, informal discovery, building the discovery plan, ethical issues, privileges and protections, the discovery tools, electronic discovery, experts, motions to compel discovery, and sanctions.

LAW 8522E Electronic Discovery Credits: 1-2
Discovery practice and laws related to electronically stored information in litigation.

Prerequisites: Civil Procedure I. II.

LAW 8522L Civil Procedure Skills Lab Credits: 1-3
Students are trained in practical skills necessary for pre-trial litigation, including client interviewing and drafting pre-trial documents such as pleadings.

Prerequisites: LAW 8521 (or co-requisite).

LAW 8531 Lawyering Skills I Credits: 3
Introduction to legal reasoning; case analysis and synthesis; case research; structure and style in legal writing with emphasis on expository writing, including office memoranda.

LAW 8531I Common Law, Legal Analysis & Writing Credits: 3
Introduction to legal reasoning; case analysis and synthesis; case research; structure and style in legal writing with emphasis on expository writing, including office memoranda.

LAW 8532 Lawyering Skills II Credits: 2-3
Introduction to advocacy; introduction to interviewing, counseling and negotiation; statutory and computerized research; writing to and on behalf of a client, including a trial or appellate brief; oral advocacy.

LAW 8532I Introduction to American Legal Skills Credits: 2-3
Introduction to oral and written advocacy; interviewing, counseling and negotiation; and alternative dispute resolution.

Prerequisites: LL.M. students.

LAW 8532R American Legal Research Credit: 1
Introduction to research resources in the U.S. and techniques to systematically process and solve basic research problems found in law practice.

LAW 8541 Property I Credits: 3
Introduction to the nature of property; basic personal property law; adverse possession; possessory estates; basic future interests; marital and concurrent interests; landlord-tenant relationships.

LAW 8542 Property II Credits: 3
Licenses, easements, real covenants, equitable servitudes; nuisances; basic water law; brokerage; financing, mortgages, deeds of trust; contract of sale, deeds, closing; title insurance, warranties; recording; eminent domain; zoning.

LAW 8552 Federal Taxation Credits: 3
Theory, history, and principles of federal income taxation; basic concepts of income, classification of income and deductions.

LAW 8590 Special Topics Credits: 1-6
The study of a contemporary topic of interest. This course is designed to facilitate one of two purposes: an initial offering of a new course (prior to formal approval) or an initial and possible only offering of new topics.

LAW 8601 Business Organizations Credits: 3
Partnership, limited liability company and corporation law; choice of business forms, formation of partnerships, limited liability companies and corporations; rights, duties, and powers of partners, members, shareholders, directors, and officers; closely held corporations; proxy regulation; derivative suits; dividends and stock redemptions; introduction to the Securities Act of 1933 and Securities Exchange Act of 1934.
LAW 8601C International Criminal Tribunals Credit: 1
This course will examine the types of international criminal tribunals available for the prosecution of individuals accused of war crimes, the crime of aggression, crimes against humanity, and genocide. The course will begin with an introduction to the history of international criminal law and a comparative examination of various international criminal tribunals, including the Nuremberg trials, ad hoc criminal tribunals (ICTY and ICTR), the permanent International Criminal Court in The Hague, and hybrid criminal tribunals (Cambodia, Lebanon, and Sierra Leone). The course will then focus more specifically on the International Criminal Court (ICC), including the ICC’s formation and jurisdiction and examples of individuals and situations investigated and prosecuted thus far by the court.
Prerequisites: Part of the Ireland Law Program.

LAW 8601L Transactional Lawyering Skills Lab Credits: 1-2
Students are trained in counseling clients and negotiating business formation, dissolution, and liability issues as well as drafting appropriate documents.
Co-requisites: LAW 8601.

LAW 8601R Doing Business In Ireland, Part I Credit: 1
A survey of International Trade Law and European and American Competition Law that impact on American multinational companies operating in the Republic of Ireland.

LAW 8601S Doing Business In Ireland, Part II Credits: 0.5
A survey of the Ireland Company Law and comparative United States Corporate Law and a survey of United States corporate taxation of multinational companies operating in Ireland.

LAW 8602 International Field Experience Credits: 1-2
In connection with relevant coursework, this limited international field experience will permit students to visit a foreign country to see the application of their coursework in a comparative perspective, including tours of legal facilities, visits with experts from the host country, and service learning opportunities.
Prerequisites: Permission of instructor and designated accompanying coursework.

LAW 8603 Taxation Of Business Organization Credits: 2-3
Survey course of the taxation of business enterprises, particularly partnerships, corporations and subchapter S corporations.
Prerequisites: LAW 8552, LAW 8601.

LAW 8605 Antitrust And Fair Competition Law Credits: 2-3
This course examines fair competition law as a body of law designed to protect consumers. Understanding fair competition law requires looking at Supreme Court case law but also lower court decisions, economic analysis, and government enforcement guidelines and policy statements.

LAW 8609 Ethical Issues In Family Law Representation Credits: 1-2
Advanced study of the ethical obligations of public and private attorneys in estate, family, and juvenile law representation. Topics may include identification of the client, ethical and legal obligations of confidentiality and disclosure, competence and client communication, respect for third persons (particularly obligations toward children of clients) and other related subjects. Paper and presentation required. When offered for 2 credit hours, the course fulfills the Schools Professional Responsibility graduation requirement.
Prerequisites: (or concurrent) LAW 8611, LAW 8751.

LAW 8611 Estates And Trusts Credits: 3-4
Intestate succession; testamentary dispositions; execution, modification, and revocation of wills; will contests; advancements, ademption, and exoneration; family allowances; rights of estate creditors; express, implied, resulting, and constructive trusts; basic tax aspects of estates and trusts; rule against perpetuities; will substitutes.

LAW 8611L Estates and Trusts Lab Credits: 1-3
This experiential course applies the knowledge acquired in the basic Estates and Trusts course to the process of gathering, evaluating, planning, drafting, and executing an estate plan in a non-tax environment.
Prerequisites: LAW 8611 Estates and Trusts; Law 8541 Property I; Law 8542 Property II.

LAW 8613I Estate Planning Internship Credits: 1-4
Students are assigned to attorneys at law firms or trust departments and will work on estate planning projects assigned by the supervising attorney. Exams may include drafting will and trust instruments, researching legal issues, and drafting memos.
Prerequisites: LAW 8611, LAW 8552.

LAW 8614 Estate Planning and Drafting Credits: 1-4
Continuation of Estates and Trusts I using problems and cases as a basis for class discussion. Working in teams, students engage in the planning of estates for actual clients, proceeding through the entire process and culminating in the execution of wills, trusts or other appropriate instruments. Course is not open to students who have taken Estate Planning.
Prerequisites: LAW 8611.
LAW 8614R Estate Planning For Retirement Plan Benefits Credit: 1
The income, gift, estate and generation-skipping transfer tax consequences and rules related to the ownership, distribution and withdrawal of retirement plan benefits, including minimum required distributions, designating beneficiaries, spousal rights and rollover options.

LAW 8615 Estate Planning and Practice Credits: 3-4
Tax-oriented examination of contemporary estate planning problems for the larger estates, with emphasis on issues of direct concern to practitioners. This course is designed for LL.M. students.

LAW 8615R Estate Planning For Charitable Giving Credit: 1
Survey of federal income tax and transfer tax laws governing gifts to charitable organizations, charitable remainder trusts and charitable lead trusts; procedural requirements to assure deductibility; and planning and drafting considerations.

LAW 8617R Elder Law For Estate Planners Credit: 1
An examination of the legal tools available for the elderly client for decision-making, both health care and financial, in the event of incapacity, and asset preservation, including Medicare and Medicaid qualification. The course will cover the use of trust; durable powers of attorney, and advance directives for health care and living wills and the relationship to court guardianship.

LAW 8621 Evidence Credits: 3
General principles relating to proof of facts in civil and criminal trials; presumptions; order of proof; relevancy; judicial notice; real and demonstrative evidence; authentication; best evidence rule; hearsay; competency; impeachment; rehabilitation.

LAW 8631 Constitutional Law Credits: 4
Core issues relating to the U.S. Constitution, including the doctrine of judicial review, the powers of Congress and the President, limitations on state power, and judicial protection of individual rights.

LAW 8633 First Amendment Law Credits: 2-3
Basic themes and advanced problems relating to the law of the First Amendment to the United States Constitution, including exploration of the values behind the protection, subversive advocacy, regulation of speech in the public forum, access to the media, regulation of the press, symbolic expression, libel, obscenity, commercial speech, picketing, right of association, loyalty oaths, legislative investigations and government demands for information, separation of church and state, free exercise of religion, state aid to the religious schools, regulation of religion-based conduct.

LAW 8633R Law and Religion Credits: 1-2
Explores the interaction of the legal system with religious beliefs and institutions. The course examines issues such as the establishment and free exercise clauses of the United States Constitution, the influence of religion in law making, and religion issues presented in famous trials.

LAW 8634 Criminal Law Credits: 3
Introduction to substantive criminal law, its role and purpose in our society; principles of liability, common law and statutory offenses; defenses; punishment.

LAW 8634I International Criminal Law Credits: 1-2
An introductory course in International Criminal Law focusing on the criminal prosecution of individuals under international law, primarily by international tribunals (or "hybrid" international/national tribunals) and secondarily by national tribunals applying international law. The course will include a consideration of aspects of criminal law that are common to most criminal legal systems, with a particular focus on those crimes that are "international," will revisit the concept of criminal jurisdiction, how it is acquired, and its limitations, such as immunity for heads of state and diplomats; and will examine the elements of war crimes, crimes against humanity, and genocide, as well as a few other crimes of international concern; and excuses or justifications under international law, such as self-defense and insanity.

LAW 8634K International Contract Law under the CISG Credit: 1
A study of the United Nations Convention on Contracts for the International Sale of Goods (the CISG), which provides a uniform system of contract principles for international sales transactions among the approximately 70 countries that have ratified the treaty. The class focuses on the applicability of the CISG, identifying for students how to avoid applicability by default; it also examines the basic contracting principles of formation, interpretation, and enforcement of contracts as governed by the CISG, utilizing both the treaty language as well as important recent decisions applying the CISG provisions.

LAW 8635 Criminal Procedure I Credits: 3
Introduction to the administration of criminal justice; constitutional rights of the accused; due process; privilege against self-incrimination; right to counsel; arrest, search, and seizure; wire-tapping; police interrogation and confessions; pre-trial identification procedures.

LAW 8635S Wrongful Convictions Credits: 2-3
An examination of the causes of wrongful convictions, a consideration of systemic reforms that might minimize convicting the innocent and a focus on recurring ethical issues that confront prosecutors and criminal defense lawyers. Students also will work with The Midwestern Innocence Project on cases of possible actual innocence. This course provides an insider's look into the operation of the criminal justice system and is designed to help students gain insight into features of the criminal justice system that have a tendency to produce wrongful convictions. It should be of particular interest to any student interested in working in a prosecutor's office, public defender's office or for a firm doing defense work. It is a prerequisite for any student wishing to enroll in the Innocence Project clinic. Limited enrollment (normally, up to 16 students).
LAW 8635T Wrongful Convictions II Credits: 2-3
A follow-up class to Wrongful Convictions I, open only to students who have completed Wrongful Convictions I. The course will involve "hands on" work with cases that have passed through the first level of screening in Wrongful Convictions I with students receiving the transcripts and case documents in addition to the briefs and opinion in the case. Students will receive these documents and report on the likelihood that an inmate is innocent and the strategies available for pursuing the claim of innocence.

LAW 8636 Criminal Procedure II Credits: 2-3
Continuation of the study of the administration of criminal justice; exclusionary rules; bail; prosecutor’s discretion; grand jury; preliminary hearing; jurisdiction, venue; joinder and severance of offenses and defendants; right to speedy trial; pleas of guilty; discovery; trial by jury; publicity; double jeopardy.

LAW 8636A Federal Trial Practice Credits: 2-3
A practical skills course involving consideration and application of the rules of procedure and evidence to civil and criminal cases brought in federal court, including, but not limited to the legal requirements of federal jury instructions, motions in limine, pretrial preparation, pretrial conferences, notice requirements, voir dire, opening statements, direct and cross, evidentiary foundations for exhibits, computerized and computer-related evidence, character and related evidence, witnesses (lay, lay opinion, summary, character, experts), and closing arguments.

LAW 8637R U.S. Attorney’s Office Law Internship Credits: 1-6
Up to four students, under supervision of an Assistant United States Attorney, are selected as interns to work in the United States Attorney’s Office for the Western District of Missouri with members of the Strike Force, Narcotic Unit, General Crimes Unit or Civil Division. Activities include, legal research and writing, consisting of memoranda, motions and briefs; observations and participation in trials, pre-trial hearings and motions, as appropriate; and assistance with litigation. Students are expected to work a pre-approved schedule of six hours a week for fourteen weeks with a minimum of eighty hours a semester and to attend regular conferences with their supervising attorney and faculty supervisor.

LAW 8638R Entrepreneurial Lawyering: Solo And Small Firm Practice Credits: 3
Course will focus on law practice management for solo and small firms. Topics include organizational structure, firm management, fee setting and allocation, and effective and ethical marketing. Course includes attendance at the Missouri Bar Solo and Small Firm Conference.

LAW 8639 Legal Practice Technology Skills Credits: 1-3
This course will facilitate technology competencies for students for use in practice settings, regardless of the size or setting of the law firm, business, or agency. The course will familiarize students with the basic legal technologies necessary for the twenty-first century lawyer, but will also include word-processing, spreadsheet and database skills appropriate for the legal setting. More advanced portions of the course include computer-assisted drafting, file architecture design, security protocols, and client communications.

LAW 8639D Legal Document Assembly Credits: 1-3
Document automation and assembly can help attorneys more efficiently and accurately deliver legal services to the public and their employer—thus helping attorneys be more competitive in the legal services market place. This two-credit hour course will teach students the skills necessary for document automation and familiarize them with HotDocs, the predominant provider of document assembly applications. Students will produce programmed documents, interviews, and systems for estate planning, businesses planning, or such other projects as are suitable for document assembly. The course may be taught over an eight week period or a summer term. No computer programming experience is required.

LAW 8639L Practice Management Technology Lab Credits: 2-3
Building on theory of the role technology in law practices, students will learn how to use document assembly software and learn to be proficient with other software with hands on exercises and work.

LAW 8641R Legislation Credits: 2-3
This course explores a variety of topics under the broad heading of "Legislation." Included among them are: electoral and representational structures, legislative drafting, canons of statutory interpretation, identifying and utilizing legislative history, the role of referendums and initiatives as a supplement to representative institutions, public choice theory, and other theories of legislation. The course also includes an opportunity for students to participate in the drafting of legislation for the Kansas for Missouri State legislatures. Paper optional.

LAW 8643F Advanced Legal Research: Foreign, Comparative and International Law Credit: 1
The course is designed to familiarize students with the basic resources of international law by taking an in-depth look at foreign and comparative law resources, teaching students how to utilize and think systematically about those resources and instructing students in the strategies and processes necessary to conduct scholarly research and practice international law. Students taking the course will improve their research competency in authorizing scholarly papers with a comparative or international perspective.

LAW 8643L Advanced Legal Research-Litigation Credit: 1
Prepares students who wish to focus on advocacy and litigation (including students in litigation with respect to Family Law and Urban, Land Use and Environmental law). The course is also intended to facilitate research for the student’s legal research and writing requirement. The course will refresh and refine research skills, help students to think systematically about legal research, and familiarize students with applicable resources. As the final project, students will have the opportunity to develop an in-depth research "path finder" or guide for an approved topic of their own choosing.
LAW 8643T Advanced Legal Research: Transactional Law Credits: 1-2
Prepares students who wish to focus on transactional law. The course is also intended to facilitate research for the student's legal research and writing requirement, although it does not satisfy the writing requirement. The course will refresh and refine research skills, help students to think systematically about legal research, and familiarize students with applicable resources relevant to transactional law including business organizations, tax, pension, labor and employment, competitive business intelligence, real estate, securities, sale of businesses, etc. As the final project, students will have the opportunity to develop an in-depth research "path finder" or guide for an approved topic of their own choosing.

LAW 8650 Race and the Law Seminar Credits: 1-3
In-depth examination of the role that race plays in American society as a whole and in judicial decision-making in particular. Course will examine the effect of race on representative democracy, employment, education, housing, hate crimes, the legal profession, sex, popular culture, and other aspects of the law. Research paper.

LAW 8656 Public Defender Trials Internship Credits: 1-6
As permitted by Missouri Supreme Court Rule 13, senior law students, under supervision, handle cases referred from the Public Defender. Students enroll for two semesters and apply lawyering skills to represent client, conduct weekly conferences, and attend lectures on criminal defense law and practice.
Prerequisites: LAW 8634.
Co-requisites: LAW 8635, LAW 8621, LAW 8731.

LAW 8656A Missouri Attorney General's Office Internship Credits: 1-3
As permitted by Missouri Supreme Court Rule 13, second and third year law students, under supervision, work at the Attorney General's Office in Kansas City assisting with the duties and functions of the office provides the community. The internship provides formalized instruction, and individual mentoring and supervision from assistant attorney generals. Limited enrollment.
Prerequisites: Rule 13 certification.

LAW 8656C Jackson County Prosecutor Internship-Family Law Prosecution Credits: 1-3
As permitted by Missouri Supreme Court Rule 13, senior law students, under supervision, appear in court and assist the Jackson County Prosecutors Office, Child Support Division, in prosecuting cases involving paternity establishment and child support. Support services are provided without charge to custodial parents living in Jackson County. The internship provides formalized instruction, and individual mentoring and supervision from assistant prosecutors. Limited enrollment.
Prerequisites: LAW 8621, LAW 8635, LAW 8731, LAW 8751, Rule 13 certification.

LAW 8656F Jackson County Prosecutor Internship-Family Law Prosecution Credits: 1-6
Students work in the Federal Public Defender's Office, under the supervision of the Federal Public Defender. Students prepare pleadings and represent federal indigent criminal defendants. Students will be expected to perform legal research, to write memoranda, motions and briefs, to observe and to appropriately participate in trials, pre-trial hearings, motion hearings and, in general, to assist in litigation. Students must meet eligibility requirements and be certified in compliance with the Local Federal Rules of Court. Students must have completed three semesters of law school and must be in the upper half of their class. Ungraded. Pass/Fail.

LAW 8656P Jackson County Prosecutor Internship Credits: 1-6
As permitted by Missouri Supreme Court Rule 13, senior law students, under supervision, appear in court and assist the Jackson County Prosecutor's Office with the duties and functions the office provides the community. Internship includes formalized instruction, and individual mentoring and supervision from assistant prosecutors. Limited enrollment.
Prerequisites: Rule 13 certification.

LAW 8662 Federal Court Internship Credits: 1-6
Second or third-year students serve in a clerkship with a judge or magistrate of the U.S. District Court for the Western District of Missouri, or the U.S. Court of Appeals for the Eighth Circuit. Students work at least 70 hours at the court, and attend review conferences over the course of the semester.
LAW 8662F Family Court Internship Credits: 1-6
Second or third-year students will serve as law clerks to judges and commissioners in the family court of Jackson County. Internship involves required observational experiences, research and writing, and participation in the regular functioning of the court's processes.
LAW 8662M Missouri Court of Appeals Internship Credits: 1-6
Second or third-year students with a GPA of at least 3.0 serve in a clerkship with a judge of the Missouri Court of Appeals. Students work at least 70 hours at the court, and attend review conferences over the course of the semester. Ungraded. Pass/Fail.
LAW 8665A Animal Law Credits: 2
This course will begin with a brief overview of the philosophical and cultural issues underlying human/animal relationships, including basic theories of the legal system's responses to social change. Legal issues relating to food animals, companion animals, laboratory animals, wild animals, and performing animals will be examined with reference to: (1) federal statues (Animal Welfare Act, Endangered Species Act, Marine Mammal Protection Act, Wild Horses and Burros Act, Animal Damage Control Act, National Wildlife Refuge System Administration Act, Refuge Recreation Act, National Environment Police Act, and Humane Slaughter Act); (2) state statues (anti-cruelty, wills and trusts, hunting, racing and fighting statues); (3) local animal control regulations; and (4) extensive common law (standing, rights, free exercise of religion, property, landlord-tenant disputes, torts, marital dissolution and custody, and bailment).
LAW 8700 Trial Advocacy I Credits: 2
A practical skills course in advocacy which introduces students to the fundamental components of a typical civil and criminal trial and requires students to perform exercises involving each component and try a mock civil or criminal case from provided problem materials.

Co-requisites: LAW 8621.

LAW 8701 International Study Exchange Credits: 1-15
Semester study at foreign law school.
Prerequisites: by permission.

LAW 8702 Conflict of Laws Credits: 1-3
Domicile; jurisdiction and limitations on the exercise of jurisdiction; judgments; full faith and credit; choice of law; conflicts problems in federal and international settings; conflicts problems in selected areas.
Prerequisites: LAW 8521.

LAW 8703 Trial Advocacy II Credits: 2-3
A practical skills course in the art of trial advocacy with an emphasis on technique, style, and methods of persuasion. During class sessions, students perform exercises involving the various stages of a lawsuit, and are critiqued on their performances. Following performance of the exercises, students are divided into teams and try a mock case in a trial competition, from which the Law School's National Trial Competition Teams are selected. The trials are evaluated by trial lawyers and federal or state judges. Limited enrollment.
Prerequisites: LAW 8700.

LAW 8704A Lawyering Skills Competition-Appellate Credits: 1-4
This course is limited to students who represent the law school in faculty supervised regional, national or international lawyering skills competitions. These competitions require application of lawyering skills in a range of substantive law areas and intensive practice of lawyering skills, judged by faculty and practitioners in the field. Students enrolled in this course will be representing the school in various moot court appellate advocacy competitions. Students will research and draft briefs or equivalent advocacy documents, develop oral arguments, conduct practice oral arguments before a range of student, faculty, and practitioner judges, and represent the law school in regional national or international competitions.

LAW 8704C Lawyering Skills Competition-Client Counseling Team Credits: 1-2
The course is limited to students who represent the law school in faculty supervised regional, national or international lawyering skills competitions. Students enrolled in this course will be representing the school in the client counseling competitions. Students will research a problem from a range of areas of law and develop problem solving and client counseling strategies and documents and conduct mock client interviews.

LAW 8704I Lawyering Skills Competition Credits: 1-2
This course provides an overview of international commercial arbitration and focuses with more specifically on international investment protection law and bilateral investment treaty provisions. The course will provide preparation for the International LL.M. Commercial Arbitration Competition, but it is open to J.D. students.

LAW 8704N Lawyer Skills Competition-Negotiation Team Credits: 1-2
The course is limited to students who represent the law school in faculty supervised regional, national and international lawyering skills competitions. Students enrolled in this course will be representing the school in various negotiation competitions. Students will research a problem from a range of law and develop negotiation strategies and documents and conduct mock negotiations.

LAW 8704T Lawyer Skills Competition-Transactional Practice Teams Credits: 1-2
The course is limited to students who represent the law school in faculty supervised regional, national or international lawyering skills competition. Students enrolled in this course will be representing the school in various negotiation competitions and meets, Students will research a problem involving business transactions or tax and prepare analysis and problem solving strategies.

LAW 8705 Trial Advocacy III Credits: 2
Students, under the supervision of trial advocacy faculty, participate in trial competitions. Enrollment by invitation only.
Prerequisites: LAW 8700, LAW 8703.

LAW 8705I Comparative Advocacy in Ireland Credit: 1
This course will look into the comparative role of Advocacy both in the courtroom and the boardroom for European and U.S. systems. The course will introduce students to a comparative look at the basic structure and legal systems in Ireland and the US. The field of Advocacy is rapidly expanding as evidenced by the adoption of affirmative advocacy programs in Ireland as well as the U.S. An example of the topics covered include: A comparative overview of the Barrister/Solicitor and U.S. systems of justice. The students will be introduced to “access to justice” which is a comparative look at European and US approaches. The course will also focus on the prosecutions under both the European and US systems as well as a discussion of the influence of crimes on international trade, business and a comparative look at the role of advocacy in those systems. Students will be exposed to advocacy for persons with disabilities that include a comparative look at the Ireland and US systems with resulting effects on business and trade. Finally the course will involve review and discussion of the global considerations for Advocacy.
Prerequisites: Part of the Ireland Law Program.
LAW 8706 Complex Litigation
Credits: 2-3
As related to litigation of complex cases, study of special issues of party joinder and intervention, class action requirements and limitations, discovery, case management, and estoppel by verdict or judgment.

Prerequisites: LAW 8521, LAW 8522.

LAW 8707A Advanced Legal Writing: Practical Skills Development
Credits: 2-3
Preparation of students for writing problems commonly encountered in the first two years of law practice: jury instructions, general correspondence, opinion letters, simple contracts, litigation motions and pleadings including a complaint, answer and some discovery documents. Individual feedback provided.

LAW 8707B Advanced Legal Writing: Business Contract Drafting
Credits: 2-3
Preparation of transactional documents including, for example, confidentiality agreements, consulting agreements, employment agreements, technology licensing agreements.

Prerequisites: LAW 8501, LAW 8502, LAW 8601.

LAW 8707C Advanced Legal Writing: Litigation Drafting
Credits: 2-3
Preparation of litigation documents and pleadings, including complaint or petition; cross-claim, counterclaim or third-party petition; answer; discovery documents such as a set of interrogatories or requests to admit; dispositive motions; and settlement agreements.

Prerequisites: LAW 8521, LAW 8522.

LAW 8707E Advanced Legal Writing: Scholarly Writing
Credit: 1
Preparation of students for scholarly writing including independent study, law review, and seminar papers. Focus will be on topic identification and refinement; developing a thesis; research strategies including reiterative and mediated searching, systemic evaluation of resources, problem typng and solving, and resources for specific topics in the law; proper attribution and use of authority; developing a working draft; and creating a balanced, thorough, and carefully reasoned and supported analysis.

LAW 8707F Advanced Legal Writing: Appellate Brief Writing
Credit: 1
Preparation of federal and state court appellate briefs, including the jurisdictional statement; statement of the case; statement of facts; points relied on; statement of the issues presented; summary of the argument; argument; and responses and replies to arguments. Prepares students to outline and organize arguments; edit and revise written work; and finalize an appellate brief.

LAW 8707R Advanced Legal Research Administrative Regulations/Legislative History
Credit: 1

LAW 8708 Master Clinical Advocacy Course
Credits: 3-4
This semester-long intensive course will introduce students to the law, advocacy and execution of trial strategy in active litigation. The course will function as a unique clinical course, with a law school professor and local counsel serving as the supervising attorneys. The professor will select an active case in local litigation, preferably in its early stages. The students will be responsible, with supervision, for all areas of the litigation process from drafting pleadings, motions, discovery and taking and attending depositions and trial.

LAW 8710 Lawyerin Skills Teaching Assistant Methods
Credits: 1-3
Legal analysis, research and writing; instruction and discussion of the research and writing process and related topics in legal method and legal education; supervised production of an expository writing, advocacy writing and scholarly writing; development of research and writing exercises for use in the first-year Legal Writing Program and service as Teaching Assistants in the Program; limited enrollment.

LAW 8710B Legal Analysis & Methods
Credits: 2
Preparation of students for the bar review and exam process with a focus on improving analytical skills to approach and do well on practice bar exam questions, including essay, multiple-choice, and performance questions. The course will cover specific topics tested on the bar exam with additional emphasis on refining memorization skills and learning how to self-assess understanding of concepts.

LAW 8711 Remedies
Credits: 2-3
Remedies for violation of legally protected interests; history and development of equity jurisdiction and modern equity practice; injunctions; declaratory judgments; rescission; reformation; restitution; contempt; damages.

Prerequisites: LAW 8521.

LAW 8712 Problems And Issues In The Death Penalty
Credits: 1-2
Issues and problems in the administration of the death penalty; the Missouri capital sentencing scheme; constitutional limitations, statutory schemes, state review systems, procedural matters and collateral review of death sentences.

LAW 8713 Death Penalty Clinic Credits: 1-2
The post-conviction process of collateral review in death penalty cases; training in legal representation of the postconviction petitioner.

Co-requisites: LAW 8712.

LAW 8713C Capital Punishment in the Modern World: Constitutional & Human Rights Perspectives
Credit: 1
A consideration of problems and issues in the death penalty, including the following topics: the historical and constitutional perspectives on the death penalty; the practical application of the death penalty in the United States; capital punishment and human dignity; and the future of capital punishment.
LAW 8713P Wrongful Convictions Clinic Credits: 1-6
Students, under supervision, provide investigate and legal assistance to prisoners with persuasive actual innocence claims. Students meet weekly with the director of the program for training and evaluation. Assigned tasks depend on the needs of the Innocence Project, and may include interviewing potential clients, gathering records, investigating actual innocence claims, consulting with experts, drafting post-conviction and/or clemency pleadings, and appearing at court hearings. Clinical students work in conjunction with law and journalism students enrolled at the University of Missouri-Columbia. Limited enrollment (normally, 8 students).
Prerequisites: LAW 8634, LAW 8635, LAW 8635S.

LAW 8714 Gender and Justice Credits: 2-3
Students will examine and discuss legal issues of special importance to women. Topics will include (among others) sexual discrimination, sexual harassment, domestic violence, reproductive autonomy, and pornography. The course seeks to present each topic in its social context by supplementing legal readings with materials drawn from the social sciences, literature, and film. Paper required. Enrollment limited to fifteen students.

LAW 8714C Gender and Justice: Selected Topics Credit: 1
Students examine and discuss, from a comparative perspective, legal issues that have a substantial impact on the construction of gender, paying particular attention to the laws of Ireland and the United States. Topics will include selected portions of some of the following issues: sex discrimination from an historical perspective in each country the constitutional standards for evaluation of sex discrimination; sexual harassment; domestic violence; reproductive rights; familial rights (same-sex marriage, divorce, and custody); feminist theory (equal treatment theory, cultural feminism, radical feminism, lesbian theory, racial essentialism, and theories of global gender equality); and depictions of gender in popular culture. The course seeks to present each topic in its social context by supplementing legal readings with materials drawn from the social sciences and literature.

LAW 8716C Cyberlaw and Information Policy Credits: 2-3
Survey of the areas of the law with existing or potential application to computers (such as contract law, intellectual property law, criminal law, tort law and constitutional law) highlighting the legal issues involved in the areas studied.

LAW 8716 Cybercrime Credits: 1-4
Cyber threats are a global problem challenging all areas of business, and attorneys must be able to advise and defend clients from these threats. Criminal lawyers must be fluent in how new technologies work and how they impact investigations. In this course, students will learn how these new cyber threats and emerging technologies are challenging attorneys across the country. The course will prepare students to think as lawyers when confronting these threats. Course topics will include computer hacking, spamming, spear phishing, Internet fraud and social engineering, cyberstalking, and the rising use of computers and social media in violent crimes.

LAW 8720 Secured Transactions Credits: 3
Secured Transactions in personal property under Article 9 of the Uniform Commercial Code, function and form of a security agreement, process of perfecting a security interest, priority among unsecured parties; secured sales of goods under Article 2 of the Uniform Commercial Code.

LAW 8721 Commercial Transactions Credits: 3
Law of negotiable instruments; bank collections; Articles 3 and 4 of the Uniform Commercial Code; electronic funds transfers.

LAW 8723 Banking Law Seminar Credits: 2
Federal and state law governing banking activities; regulation of bank holding companies; formation of banks; the FDIC and FSLIC; interstate banking; deregulation of banking transactions; banking activities by non-banks; regulation of securities activities of banks. Paper required.
Prerequisites: LAW 8721.

LAW 8725 Water Law Credits: 2-3
Private acquisition of water rights through riparian ownership and prior appropriation; public rights to water existent in bed ownership easements and trusts; ground water management; water distribution organizations; federal allocation and control of water resources; interstate allocation.

LAW 8725E Energy Law Credits: 3
The course will deal with the legal, economic and environmental issues of energy production on federal lands and/or under federal jurisdiction. It will focus on a number of energy sources including: oil, coal, natural gas, oil shale, coal bed methane, geothermal, water, wind, and solar. It will also cover the special problems of hydraulic fracturing, air and water pollution, climate change spills, collapses, meltdowns and other disasters as well as liability for cleanup and reclamation.
LAW 8728 Law And The American Indian Credits: 2-3
An anthropological, historical and legal study of the American Indian, including a focus on American Indian traditional law and values, federal policy and current legal issues.

LAW 8729 Preservation Law Credits: 2-3
An exploration of the legal and economic issues impacting preservation of land, wilderness, buildings and archaeological and historical sites, including a study of various federal and state preservation legislation, and private land use preservation measures.

LAW 8729C Cultural Preservation Law Credits: 3
This course will focus on Federal, State, and Local Law, directed at the preservation of Prehistoric, Historic, and Modern Culture. It will include sections on: The Values and Philosophy of Preservation, Archaeological Protection Law, the Native American Grave Protection and Reparation Law, Sacred Site Protection, Historic Protection in State and Local Government, the Takings Clause, Land trusts and Conservation Easements, Public-Private Partnerships and Modern Ethnic and Socio-economic Communities.

LAW 8730I Introduction to American Law & Culture Credits: 2-3
Introduction to the American legal system, including government structure, sources of law, common law development, and core substantive areas. Available to LL.M. International students only.

LAW 8731 Professional Responsibility Credits: 2
Code of Professional Responsibility and the Model Rules of Conduct; role of the lawyer as a professional; confidentiality; conflict of interest; zeal within the bounds of the law; competency; providing legal services.

LAW 8732C Cross-Cultural Dispute Resolution Credits: 2-3
This course examines the impact of culture on the dispute resolution process. Cultural differences are most pronounced in the international arena, but are also seen in the domestic setting, especially in the US jurisdiction. Students will begin to develop a "cultural fluency" in their law and dispute resolution practice. The subject is timely, and discussion thereof will benefit especially international LLM students, and J.D. students with interests in alternative dispute resolution or international practice. Cross-cultural Dispute Resolution is a blend of both a "course" and a "seminar," as it includes lecture, skills discussion, small-group exercises, independent research and intensive writing. Successful completion of the required research paper will satisfy the research and writing requirement.

LAW 8732I Cross-cultural Business Negotiation Credits: 1-3
This course will introduce students to the foundations of negotiation with several opportunities to participate in negotiation simulations. Negotiation exercises will focus on international business transactions. To create opportunities for cross-cultural interaction and work experience, negotiation teams will, to the extent possible, pair American J.D. students with an international LL.M. students.

LAW 8732R Intro to the Resolution of International Commercial Disputes Credit: 1
This course will introduce students to international commercial dispute resolution. While all forms of dispute resolution will be considered, the course will focus on introducing the fundamentals of arbitration, the use of arbitration between European Union members to resolve commercial disputes, and the use of arbitration between EU members and non-member states to resolve commercial disputes.

LAW 8733 Children In The Law Credits: 2-3
The ways in which the legal system treats children differently from adults and the justifications for such treatment, who should make decisions for the child, decisional authority that should be granted to parents, children and the state in various contexts (e.g., abuse and neglect, health care for the child, foster care, adoption and education).

LAW 8733E Elder Law Credits: 2-3
A course providing a basic foundation for legal practice with older persons, including the following substantive topics: The Older Americans Act, the delivery of legal services to the elderly, ethical considerations, consumer protection, discrimination, Social Security and Supplementary Security Income, Medicare, Medicaid, capacity issues, guardianship and alternatives to guardianship, elder abuse and neglect, adult protective services, nursing homes, long term care, housing, healthcare decisions, end-of-life decisions, estate planning and grandparents' rights.

LAW 8733R Juvenile Offenders & The Law Credits: 2-3
An examination of our justice system's historical treatment of juvenile delinquent and status offenders, and how the goals and objectives of the past have evolved into today's juvenile offender laws, the rights of juvenile offenders in contrast to those of adult criminals; pre-trial and trial procedural issues under the juvenile code; certification of the juvenile offender as an adult; dispositional/treatment alternatives for juvenile offenders; schools and the juvenile offender.

LAW 8734 Mediation Credits: 2
The process in which a neutral third party assists others in resolving a dispute or planning a transaction; introduction to the nature of the process, its possibilities and limitations, its current and future uses, and how lawyers can and should be involved in it; public policy and political issues surrounding the mediation movement; professional responsibility and malpractice.

LAW 8735 Seminar In Famous Trials Credits: 2-3
Historical and jurisprudential issues involved in a number of "political trials."
LAW 8735P Seminar in Pre-Twentieth Century Famous Trials Credit: 1
This seminar will explore six or seven of the most famous trials from ancient times to the end of the nineteenth century. The trials covered will vary from year to year, but will be taken from a list that includes the trials of Socrates, Jesus, Joan of Arc, Sir Thomas More, Galileo, the Salem witches, John Peter Zenger, the British soldiers charged in connection with the Boston Massacre, Aaron Burr, the slaves of Amistad, John Brown, the Lincoln Assassination conspirators, Susan B. Anthony, the Haymarket rioters, Lizzie Borden, and Oscar Wilde. Each trial will be examined from many perspectives, both with an eye to deepening students’ appreciation for history and their understanding of the tactical and ethical questions faced by attorneys involved in these famous cases. Materials for the seminar can be found on the Famous Trials website. Grades for the seminar will be based both on an in-class objective examination and a short paper addressing an issue raised in a famous pre-twentieth century trial.

LAW 8735R Law Of The European Union (Part I) Credit: 1
An in-depth study of the legal and political framework and institutions of the European Union; the Commission, Council of Ministers, Court of Justice, Court of Auditors, and the European Parliament. Course will examine the interlocking web of European treaties, the expansion of the European Union, the European Union as a trade block and Ireland as a gateway to the European Union for non-bloc nations.

LAW 8736 Debtor-Creditor Rights Credits: 2-3
Creditors’ remedies and debtors’ rights; provisional remedies; secured transactions (Article 9 of the Uniform Commercial Code); liens and exemptions; overview of bankruptcy law.

LAW 8737B Bioethics and Assisted Reproduction Credit: 1
This course will examine the regulation of assisted reproduction, focusing, in particular, on the determination of legal parenthood. The course will consider the legal determination of the status and disposition of embryos, the possibilities of transfer or donation, use of donor gametes, surrogacy, nuclear transfer, and interjurisdictional conflicts. In addressing these topics, the course will compare Ireland, a relatively conservative country on reproductive issues, with the UK with a mix of liberal and conservative approaches in the United States.

LAW 8737R Law Of The European Union (Part II) Credits: 2
An examination of the substantive and procedural law governing the member states of the European Community including such topics as the nature and application of European Union Law, the relationship between European Union and national laws, remedies in national courts, enforcement actions, damages and money claims, free movement of goods and workers competition laws, intellectual property, equal treatment of women and men, and non-discrimination.

LAW 8738 Immigration Law And Process Credits: 2-3
Admission, exclusion, deportation, and naturalization of aliens; structure and powers of relevant federal agencies; categories of immigrant and non-immigrant visas and visa application procedures; asylum, extradition, and refugee status; rights of aliens; public policy issues and proposals for reform; practical problems in immigration.

LAW 8738C Employer Immigration Compliance Plans, Policies & Procedures Credits: 1-2
A practical lawyering skills course in which students learn how to help employers comply with employer immigration compliance requirements in order to avoid possible non-compliance fines, forfeiture of business and personal assets, and jail terms. This course includes an overview of the applicable immigration law and instructs in such matters as corporate client interviewing; Form I-9 Employment Eligibility Form; E-Verify and FAR E-Verify for federal contractors; ICE Best Employment Practices, drafting employer immigration compliance plan, policies and procedures; I-9 Self-Audits, and defending a corporate client in I-9 inspections/investigations by ICE/DHS.

LAW 8738R Chinese Law Credits: 4.5

LAW 8738V Immigration Law & The Violence Against Women Act Credit: 1
A practical lawyering skills course in which students learn how to help abused immigrant women and children to apply for permanent residence in the United States, and how to help victims of violent crimes to apply for legal status. The course includes a short overview of the applicable immigration law and instructs in such matters as client interviewing; analysis of cases; working with victim advocates and experts; drafting affidavits, evidence indexes, petitions, motions and supporting documents; preparation of checklists for clients, case flowcharts, and case timelines; the review and development of evidence; and the drafting of letters to clients and the government.

LAW 8740A Missouri Appellate Procedure Credits: 1-2
Practical application of Missouri appellate procedure rules: appellate jurisdiction, what is appealable and when, appellate case process and the interplay between statutes, Missouri Court Rules and Missouri case law with regard to appellate issues. Prerequisites: Law 8522 Civil Procedure II.

LAW 8740M Missouri Civil Procedure Credits: 2-3
Selected problems in Missouri civil procedure under Missouri statute and rules. Topics may include venue and personal jurisdiction, pleading and motion practice rules on joinder of parties and claims, statutes of limitation, trial procedure, post-trial motions appellate procedure, discovery, and preclusion.
LAW 8742 International Law Study Trip Credits: 0.5-2
Study field trip series which provides supplementary field experience supporting classroom international and comparative law coursework. Nature of field experience will vary depending on the companion course.
Prerequisites: by permission.

LAW 8743 Global Legal Systems Credits: 1-3
A study of different legal traditions and systems, mainly within the Civil and the Common Law traditions, focusing on each tradition's history, legal structures, legal actors, procedures, and sources of law. Non-Western Legal traditions such as Islamic, Jewish, Hindu and Indigenous Law may also be considered, time permitting.

LAW 8743C Comparative Criminal Law Credit: 1
A comparative analysis of criminal law jurisprudence in the United States and Europe (especially Ireland and the United Kingdom) with respect to the exclusionary rule, the death penalty, the jury system and the reintegration of ex-offenders into society.

LAW 8743I Ireland Program: Selected Topics in Comparative Law Credits: 1-2
This course addresses a focused area of law from a comparative perspective of United States, Ireland, and/or EU legal systems.
Prerequisites: part of Ireland Study Abroad Program

LAW 8743L Comparative Health Law Credit: 1
An examination of how the legal systems of several other nations address particular aspects of health law. Specifically, the focus of this course is on patent rights with respect to the health care they receive. This will include, for example, consideration of patient rights when the care received has caused injury due to professional negligence. If time permits, it will also look at how other legal systems address the controversial issues surrounding the "right to die" as well as assisted suicide and euthanasia.

LAW 8745 Law Review Credits: 1-4
Editorial work in connection with the "UMKC Law Review." Open to students selected on basis of scholarship. Ungraded.

LAW 8745R Law Review Board Credits: 1-5
The members of the Law Review Editorial Board edit articles and student notes and comments for publication in the University of Missouri Kansas City Law Review; and shepherd the articles and student pieces through the production process.

LAW 8745S UMKC All Journal Staff Credits: 1-4
Staff members of all UMKC School of Law journals (The Urban Lawyer, Law Review, Journal of the Academy of Matrimonial Lawyers, etc.) received credit for writing case notes, annotations, and statutory developments, for editing articles, for editing comments and book reviews, and for participation. Ungraded.

LAW 8746 Research & Writing Requirement Credits: 2
Completion of a paper of publishable quality, demonstrating intensive research and analysis under faculty supervision.

LAW 8746C Court Internship Credits: 1-6
Second or third-year students serve in a clerkship with a judge, magistrate, commissioner, or other judicial officer in individually arranged internships.

LAW 8746I Internship Credits: 1-6
Second or third-year students serve in an unpaid internship with a supervising attorney in a government or non-profit practice in individually arranged internships. Students reflect on their experience and provide samples of work product for review by supervising faculty.
Prerequisites: 28 J.D. credit hours completed

LAW 8746R Independent Study Credits: 0.5-3
Independent study, including research and writing projects, under faculty supervision.

LAW 8746W Introduction to Workers’ Compensation Law and Practice Credits: 1-2
An introduction to the general history and purpose of the workers’ compensation laws with a particular emphasis on Missouri law. Students will be presented with and guided through actual workers’ compensation problems which will introduce them to the practical aspects of the practice in this specialized area. With permission from Jefferson City and the Department of Labor and Industrial Relations, the students will be exposed to actual workers’ compensation hearings, mediations and other courtroom practices held at the law school and presided over by an Administrative Law Judge.

LAW 8747 Introduction to Appellate Advocacy Credit: 1
Preparation of memorandum (points relied on and summary of argument); presentation of two arguments before practicing attorneys.

LAW 8748 Appellate Advocacy - Ellison Moot Court Competition Credits: 2
Ellison Moot Court Competition; preparation of an appellate brief and presentation of two oral arguments before federal and state judges. Open to the 16 finalists from Appellate Advocacy II. Ungraded.
Prerequisites: 8747 Intro to Appellate Advocacy.
LAW 8749 Field Placement Seminar: Learning from Practice Credits: 1-2
Learning from Practice is a seminar (tied to a field placement) devoted to the development of lawyering skills and professional judgment. Seminar activities are designed to build professional and lawyering skills that will assist students as they perform fieldwork and observe a live practice environment. The seminar will explore dimensions of professional development of an effective lawyer, including the capacity for reflection, deliberate skill acquisition, and ability to form meaningful professional relationships.
Prerequisites: 30 credit hours toward JD.
Co-requisites: Concurrent enrollment in a field placement course or instructor permission.

LAW 8750B Urban Lawyer Board Credits: 1-5
Members of the Urban lawyer Editorial Board, articles that are submitted and coordinates student written case digests and comments for publication in The Urban lawyer. The members of the board ensure the articles and student pieces conform to publication standards and work the articles through the production process. Board members must take at least one credit in the fall semester and can carry over the remaining allocated credits to the winter semester. Ungraded.

LAW 8750C Municipal Internship Credits: 1-6
Second or third-year students serve in internship in a department of city government providing legal or regulatory functions. Students reflect on their experience and produce written work product for review by supervising faculty.
Prerequisites: by selection

LAW 8751 Family Law Credits: 2-3
Pre-marital contracts; marriage; annulment; paternity; parent and child; divorce; alimony; division of property; separation agreements; adoption.

LAW 8751D Divorce Procedure and Practice Credits: 1-3
This course will focus on basic doctrine and procedure of divorce, child custody and related financial issues using Missouri law as the template. Students will perform a simulation of a divorce from initial client interview to judgement, including trial and mediation of the issues. Course includes attendance at the Missouri Bar Family Law Conference.

LAW 8751F Family Law & Film Credit: 1
An exploration of the function of family law and lawyers in society by examining legal decisions, statutes and legal commentaries in the context of films, including classic, contemporary mainstream, foreign, documentary and independent films. The seminar entails participants viewing a film followed by discussion. During the discussion session students will critique the film in light of assigned reading materials. Using films as analytical tools, the seminar examines the ways in which pop culture products (such as film and television) both reflect and change the social views about family law and lawyers. A pass/fail course.

LAW 8751S Family Violence Credits: 2-3
An in-depth examination of family violence from a legal perspective. Course topics will include interdisciplinary study of the dynamics and psychology of family violence, of historical and social policies, specialized problems of family violence (including intimate partner violence, child abuse and neglect, gay and lesbian battering, and elder abuse) and legal responses. Students will receive practical training in safety planning, intake, review of community resources, case logistics, and advocacy for temporary orders.

LAW 8752G Guardian Ad Litem Workshop Credits: 1-2
Advanced study of guardian ad litem practice. (GAL). Topics may include adult and child orders of protection, requirements for guardian ad litem appointments, role of the GAL, ethical considerations, working with social workers and other professionals, and best practices in investigation, recommendation, and representation. Students will partner with volunteer attorneys to act as guardians ad litem in order of protection cases.
Prerequisites: Rule 13 certification.

LAW 8752R Family Law Practice Credits: 2
A practical skills course in family law in which students participate in all phases of family law practice, including the initial client interview; the drafting of questionnaires, pleadings, motions custody and discovery plans, support and maintenance proposals, orders and other documents; negotiation, and preparation for litigation. Students work in teams and perform exercises which simulate "real world" situations.
Prerequisites: LAW 8751.

LAW 8752S Child & Family Services Clinic Credits: 1-6
Students represent the clients in obtaining legal rights to custody of children who are currently in foster care or otherwise under the authority of the Department. Students work under the supervision and direction of clinic faculty and faculty directors, receiving classroom instruction in the substantive law and procedure governing juvenile court actions.
Prerequisites: Rule 13 certification.

LAW 8753 International Law Credits: 2-3
Survey of international legal studies; nature and role of international law, its effectiveness in dealing with international problems and its application in domestic jurisdictions.

LAW 8754 International Business Transactions Credits: 2-3
Legal problems encountered in international business; jurisdiction and choice of law; enforcement of judgments; methods of protecting foreign investments; extra-territorial application of United States regulations, e.g. anti-trust law.
LAW 8757 Business Planning Credits: 2-3
Problem-method study of choice of entity and various other legal issues and planning challenges in forming a closely held business entity and in private and public financing of an existing enterprise. The course includes practical training from drafting organizational documents to conducting simulated client interviews and providing written advice concerning hypothetical transaction. Limited enrollment.

LAW 8757L Special Topics In Entrepreneurial Lawyering Credits: 2
Examination of issues related to ethical and effective management and marketing of law practice, emphasizing solo and small firm practice. Topics will vary from year to year, but will generally address issues such as forms of practice, dissolution of practice, practice management systems (including technology assistance), human resources management, advertisement and solicitation, insurance and malpractice.

LAW 8757N Entrepreneurship & New Venture Creation Credits: 3
Jointly-taught by Law School and Bloch (Business) School faculty, this interdisciplinary course provides education in entrepreneurship to a combined class of students from law, business, engineering and perhaps other graduate-level disciplines. Using a combination of readings lectures, electronic blackboard discussions, team business planning projects and presentations, and individual presentations on selected topics, the Course is designed, from a law student's perspective, to both (1) familiarize the student with substantive knowledge of issues from multiple disciplines involved in creating a new venture to commercialize technology and (2) train law students in techniques designed to effectively communicate and resolve legal issues inherent in such projects in a collaborative manner with clients and their advisors from other disciplines.

LAW 8757R Entrepreneurial Law & Practice Clinic Credits: 2-3
Under faculty supervision, students will counsel start-up companies and their owners and implement business planning advice by drafting articles of incorporation and organization, by-laws, partnership agreements and other business contracts. Other business-related matters ranging from regulatory, consumer, licensing, and taxation requirements; copyrights, trademark, and patent creation; and 501(C)(3) applications for non-profits may also be covered in this course. Clinic students will also receive classroom instruction in the areas of client counseling and business planning and drafting of business documents.

Prerequisites: LAW 8721, Rule 13 certification.

Co-requisites: LAW 8731.

LAW 8757V Social Entrepreneurship Ventures Credit: 1

LAW 8758S Securities Regulation Credits: 2-3
Problem and policy method study of the Securities Act of 1933 and selected aspects of the Securities Exchange Act of 1934; financing of an enterprise; reorganizations; tender offers; proxy regulation; and securities fraud claims.

LAW 8760 Insurance Credits: 2
Life, fire, accident, and liability insurance; nature of insurance; nature of insurance contract; special rules of construction; standard policy provisions; regulation of insurance industry.

LAW 8762 Personal Injury Tort Practice And Procedure Credits: 1-3
Advanced treatment of law of negligence; right of recovery and defenses; practice and procedure in negligence cases, including case intake, pre-discovery investigation, settlement demand packages and other communications with opposing counsel, injury petitions, initial discovery, depositions, retention of experts, pre-trial motions, and mediation.

Prerequisites: LAW 8521 Civil Procedure I, Law 8522 Civil Procedure II, Law 8511 Torts, Law 8531 8532 Lawyering Skills I II.
LAW 8768 National Labor Relations Board Internship Credits: 1-3
One-semester clinic in which students will be assigned to the Kansas City Office of the National Labor Relations Board. Under the direction and supervision of the Regional Director, the students will participate in the investigation and prosecution of unfair labor practice charges filed by employers, unions and employees. The students may participate in conducting elections to determine whether employees shall be represented by a union. The students will also assist in Federal District Court litigation to obtain injunctions against NLRA violations. Tasks will include document review, witness interviewing, research and case preparation. Bi-weekly conferences with faculty supervisor and log of clinic activities also required. Prerequisites: LAW 8763.

LAW 8768R Department Of Labor Internship Credits: 1-6
Students work with the solicitor’s Office of the United States Department of Labor assisting attorneys enforcing federal labor statues, including the Fair Labor Standards Act, OSHA, ERISA, and the Davis-Bacon Act. Under the supervision of the Deputy Regional Solicitor, students perform legal research relating to enforcement actions, draft discovery requests review documents, participate in client and staff conferences, and assist in the investigation of violations. Clinic participants maintain a log of their activities and have bi-weekly conferences with the faculty supervisor to review and evaluate their clinic experiences and research work product.

LAW 8769 Law & Poverty Credits: 1-3
Selected problems arising out of the relation of the law to the poor and its effect upon the individual and the family structure; income maintenance (e.g., welfare, social security); discrimination in employment and housing; delivery of professional services (legal, health); administrative and judicial remedies.

LAW 8770 State And Local Government Law Credits: 2-3
Structure, powers, and divisions of local governments in metropolitan areas; role and powers of cities, counties, towns, school and special districts; decentralized and neighborhood governmental units and other local governmental units; legislative, home-rule, and constitutional sources of power; sovereign immunity; boundary adjustments; public employee relations; citizen participation; reapportionment; licensing and permits; ethics and public access to records; regional governance; intergovernmental cooperation; interstate compacts and authorities; function of local government with reference to solution of problems created by urban growth; role of judicial, administrative, and political processes.

LAW 8771 Public Finance Credits: 2-3
Fiscal, economic, and taxation problems and powers of local government in metropolitan areas; constitutional limitations; spending and public finance; property taxes; special assessments and exactions; interstate tax acts; local income taxes; debt financing; debt adjustment; public expenditures and contracts; financing education.

LAW 8773 Environmental Law Credits: 2-3
This course covers law developed to control pollution and to protect our country's physical environment. The course provides introductions to ecological theories and to early common law efforts to protect the environment. But the course mainly focuses on current environmental statues (for instance, the Superfund Act, the Resource Conservation and Recovery Act, the Clean Air Act, and the Clean Water Act) and on current federal constitutional issues involving the environment. (Priorities in this mix may vary from year to year, depending on current events and related course offerings). Enforcement policies, citizen activism the needs of private industry, and the administrative process are also considered.

LAW 8773C Environmental Compliance Auditing and Permitting Credits: 3
This course provides students with an overview of the key federal environmental statues and their inter-relationships, including consideration of the Clean Water Ace, the Clean Air Act, the Emergency Planning and Community Right to Know Ace and the Resource Conservation and Recovery Act. Students will learn about inspections, enforcement and liability; environmental management systems and auditing; and generally, how Congress and the EPA formulates environmental laws and regulations and about the roles in the process of the legislature, the regulators, the regulated communities, citizens and public interest groups.

LAW 8773N Negotiating SuperFund Settlements Credits: 1-2
This course will engage students in the simulated resolution of one or more Superfund cases, with a particular focus on the skills required for negotiated resolution of these matters.

LAW 8773R Environmental Law Internship Credits: 1-6
Students perform clinic activities at the United States Army Environmental Office, including performing legal research, writing position papers, attending state and federal regulatory hearings, participating in planning conferences and assisting with litigation. Students are supervised by the Central Regional Environmental Chief Coordinating Attorney and attend regular conferences with a faculty supervisor who reviews copies of all clinic written work that may be so reviewed under the United States Army Environmental Office rules. Prerequisites: LAW 8773 (or LAW 8764).

LAW 8774 Citizen Suits under the Endangered Species Act Credit: 1
This course will cover the citizen suit provision of the federal Endangered Species Act, walk-through an example case from initiation to settlement, and consider possible reform to meet the goals of the statute. Prerequisites: Civil Procedure I II.

LAW 8775 Appellate Advocacy National Moot Court Competition Credits: 1-2
Participation on National Moot Court competition team. Ungraded. Prerequisites: LAW 8748, Ellison Moot Court Competition.
LAW 8778 American Academy Matrimonial Lawyers Board Credits: 2
Under direction of professor, students provide editorial assistance in publishing Journal of the American Academy of Matrimonial Lawyers, write a paper on selected topics and prepare summaries and bibliography of current works. Limited enrollment.

LAW 8782R U.S. Environment Protection Agency Law Internship: National Agricultural Compliance Assistance Center Credits: 1-3
Students will be assigned to work with EPA’s National Agriculture Compliance Assistance Center (AG Center). Under the supervision of an attorney with the AG Center, a student will be expected to perform legal research, write memoranda, develop compliance assistance materials, respond to inquiries from the regulated community, and participate as appropriate in meetings, conferences, and training sessions with EPA, other federal agencies, trade associations, etc., and, in general, assist in the activities of the AG Center. Students must have completed three semesters of law school. Preference will be given to students who have completed Environmental Law or administrative law. Eligible interested students will then be screened and selected.

LAW 8782S U.S. Environmental Protection Agency Internship, Region VII Credits: 1-3
Students will be assigned to work at the EPS's Region VII Headquarters in Kansas City, Ks. Under the supervision of an EPA attorney, students will be expected to perform legal research, write memoranda, develop compliance assistance materials, respond to inquiries from the regulated community, and participate as appropriate in meetings, conferences, and training sessions with the EPA. Students will attend regular conferences with their Supervising Attorney and Faculty Supervisor, and will produce a final written project based on their experience. Students must have completed two semesters of law school. Preference will be given to students who have completed an environmental course at the Law School. Eligible students will be screened and selected. Positions limited. Ungraded, pass/fail.

LAW 8783 Federal Public Land & Resource Law Credits: 2-3
Exploitation and conservation of natural resources; management of federal lands; water law; energy law; federal wildlife preservation; resolution of disputes involving use of natural resources.

LAW 8783B Buffalo National River: Issues in National Park Law & Management Credit: 1
Specialized study of topics in natural resources law as it relates to the Buffalo National River in northern Arkansas. Students will explore the history of the Buffalo River; the state and federal laws in operation governing the park (e.g., the wild and scenic rivers act, the endangered species act, national historic preservation, etc.); and planning and management issues presented by the multiple uses of the area and its surroundings.

LAW 8783P Preservation of Land & Natural Resources Credits: 2-3
This course will provide a survey of the law and policy of land and natural resource management, with an emphasis on preservation, conservation and sustainability.

LAW 8790 Legal Aid Internship Credits: 1-6
Internship at offices of Legal Aid of Western Missouri. Students receive instruction in basic poverty law representation and techniques for experiential learning and, depending on placement, are given supervised instruction and practice opportunities in client counseling, fact investigation and discovery, case preparation and pleadings, community advocacy and trial techniques. Faculty and Legal Aid attorney supervision. Limited enrollment.

LAW 8791 Civil Rights Credits: 2-3
Elements of a Section 1983 case, enforceable rights and available defenses; procedural aspects of civil rights cases; suits against federal and state governments.
Prerequisites: LAW 8631.

LAW 8792S Seminar on Gun Law & Policy Credits: 1-3
This course examines legal and public policy issues relating to firearms and the role they play in the United States, with a particular emphasis on debates about the meaning of the Second Amendment and attempts to hold gun manufacturers and sellers liable under tort law. Research paper required.

LAW 8793A Health Law 1: Liability and Quality Issues in Health Care Credits: 2-3
Health Law 1: Liability and Quality Issues in Health Care

LAW 8793B Health Law II: Regulation, Organization and Finance Credits: 2-3
Health Law II: Regulation, Organization and Finance

LAW 8796 Economics And The Law Credits: 2-3
Tools of economic analysis which have particular application in the law; equity and efficiency are weighed in regulation, pollution, discrimination, monopoly, financial markets, human resources and government expenditure and taxation policy. Principles will be introduced and expanded upon using both lecture and case study techniques.

LAW 8797 Business Torts and Unfair Competition Credits: 2-3
The common law applicable to relations between businesses that compete against each other or that cooperate with each other in the production and distribution of the same product. Tort, contract and property law principles as remedies not available in parallel statutory schemes, such as the antitrust or patent laws. Statutes that codify the common law or create statutory procedures or remedies for common law rights.

LAW 8798 Copyright Law Credits: 2-3
Protection extended to works of authorship including literacy works, computer programs, works of applied art, sound recordings, photographs, etc. under U.S. copyright law. How protection for works is achieved, the nature of rights protected, transfer of rights, and infringement actions. Related common law rights that may exist under doctrines such as implied contract, unfair competition, right of privacy, and right of publicity.
LAW 8798A Art Law Credits: 2-3
This course examines several key topics related to the protection of visual arts, including copyright and moral rights and their intersection with First Amendment protection.

LAW 8800 Legal Research Thesis Credits: 1-8
Research for LL.M. thesis.

LAW 8808 Intellectual Property Law Credits: 2-3
Substantive and procedural law of intellectual property. Coverage includes copyrights and patents and other areas at the option of the instructor.

LAW 8808I International Intellectual Property Credit: 1
This course focuses on the main principles of protection and obligations of the signatories to the World Trade Organization Trade Related Intellectual Property Agreement (GATT/TRIP’s) - in particular focusing on the main intellectual property and Industrial property rights, including (1) Copyright, (2) Performers Rights, (3) Patents, (4) Trade Marks, and (5) Related rights such as unfair competition and the protection of geographical indications; and addresses what the obligations are that are imposed on signatories in respect of protection and enforcement of these rights.

LAW 8808L Intellectual Property Licensing Credits: 2-3
This course provides for advanced engagement with intellectual property concepts while also providing training in practical skills. The course will first entail reminding students of the differences among the three essential areas of intellectual property law (copyright, patent, and trademark) and indentifying how these differences translate into different standard license agreements. Additionally, students will consider the challenges in drafting a consolidated license agreement that transfers interests in multiple types of intellectual property. Second, the course will include considerable practice for students in drafting contract language.

LAW 8808S Intellectual Property Remedies Credits: 2-3
This course will explore the remedies available to intellectual property owners and the protections available to those accused of infringing copyrights, trademarks, trade secrets and patents. The course will delve into issues of how rapidly advancing technology has made it more difficult to apply the current remedies and explore whether they go too far or not far enough in protecting owners of intellectual property. It will also help students recognize that case evaluation does not end after analyzing whether liability exists.

LAW 8813 Employment Discrimination Law Credits: 2

LAW 8813E Equal Employment Opportunity Commission Internship Credits: 1-4
Under the supervision of EEOC Regional Attorneys, students will work in the Legal Department at the Equal Employment Opportunity Commission’s Kansas City, Kansas office. Students will conduct research and draft legal documents and observe and participate in the commission’s dispute resolution processes.

Prerequisites: 45 credit hours 2.8 GPA

LAW 8814E Unemployment Compensation Clinic - Appellate Practice Credits: 2
Students represent applicants before the western district court of appeals in their appeals from denial of unemployment compensation. Students attend training sessions to learn relevant substantive and procedural law of unemployment compensation, and then assist in reviewing files to select cases for appeal and contacting potential clients, review records and transcripts of the selected cases, meet with the clients, research and write the brief and reply briefs, and argue the cases on appeal.

Prerequisites: LAW 8747, Rule 13 certification.

LAW 8814R Employment Law Credits: 2-3
Survey of legal doctrines regulating the employment relationship, including the regulation of wages, hours and benefits; privacy in the workplace; workers' compensation; suits for unjust dismissal; drug and polygraph testing; and sexual harassment. May be offered as a seminar.

LAW 8814U Unemployment Compensation Clinic - Hearings Practice Credits: 1-3
Students represent claimants in administrative hearings appealing denials of their unemployment compensation claims. Students interview and counsel clients, investigate their cases, prepare evidence, and advocate for the clients in these hearings.

LAW 8815 Products Liability Credits: 2-3
Theory and practice in products liability cases; negligence; misrepresentation; strict liability; theories of product defect; applicability of the Uniform Commercial Code including warranties and disclaimers; actions among members of the distribution chain.

LAW 8815R Disabilities And The Law Credits: 2-3
An interdisciplinary study of the law relating to disabled persons in the areas of employment, education, and access to transportation, health, welfare and social services to provide an understanding of how the law affects individuals with disabilities and public and private entities. Legislation considered include the American with Disabilities Act, Section 504 of the Rehabilitation Act of 1973, the individuals with Disabilities Education Act, the Family and Medical leave Act, the Fair Housing Act, the Voting Accessibility for the Elderly and Handicapped Act, and the Title VII of the Civil Rights Act of 1964. The enrollment of graduate students from other disciplines, such as education, business, and health sciences is encouraged to allow for interdisciplinary discussion of the topics involved.
LAW 8815S Leadership In Disability Studies: A Multidisciplinary Approach Credits: 3-4
An overview of the history of disability issues, some individualized perspectives of persons with disabilities, the rationale for interdisciplinary approaches regarding disability studies, and opportunities for leadership development with regard to disability issues. The students will participate in a forum that encourages reflection, exchange of ideas, interaction with persons with disabilities and persons from various fields of study, and case analysis. After an orientation to the study of disabilities, various aspects of community membership for persons with disabilities will be addressed, particularly with regard to the workplace, the neighborhood, and the home. Emphasis with placed on vital leadership roles that facilitate community membership and contribution of persons with disabilities to society.

LAW 8820 Criminal Trial Techniques Credits: 2
Strategy and tactics in handling a criminal case; effective representation of the accused at various stages of the criminal process; securing pre-trial release; plea bargaining; motion practice; discovery; voir dire; opening and closing statements; examination of witnesses; use of the expert; sentencing; appeal; collateral attack.

LAW 8821 Sentencing Mitigation Clinic Credits: 1-6
Students will work in conjunction with practicing attorneys, paralegals, social workers, and investigators serving clients of the Federal Public Defender Offices in the District of Kansas and the Western District of Missouri. The focus of the client representation will be geared towards investigation, development and presentation of mitigating evidence to impact sentencing outcomes.

Prerequisites: Mental Health Investigations.

LAW 8822 Post Conviction Remedies Credits: 2-3
Federal and state remedies for collateral attacks on criminal convictions; vacation of sentences and convictions; federal habeas corpus and similar devices. Paper required when course is offered as a seminar.

Prerequisites: LAW 8635.

LAW 8826 Seminar in Constitutional Interpretation Credits: 2-3
Current issues in constitutional law. Paper required.

Prerequisites: LAW 8631.

LAW 8831R International Human Rights Law Credits: 1-3
Study of the law protecting individuals and groups against governmental violations of internationally guaranteed rights; historical antecedents and theoretical underpinnings; human rights in national law (the United States); post World War II developments; principal international human rights instruments; regional human rights arrangements; human rights of women, refugees, ethnic minorities; implementation of rights; international obligations of the United States; selected civil, political, economic and social rights.

LAW 8832 Law Of International Trade And Finance Credits: 3
Study of the World Trading System, focusing on policy and application, including the WTO, the NAFTA, U.S. trade remedies, foreign direct investments controls, and export controls.

LAW 8832I Introduction to International Trade Credits: 1-3
An examination of the structure and workings of the major global trade regimes, including the World Trade Organization ("WTO") and the North American Free Trade Agreement (the "NAFTA"). The role of international trade in such areas as the environment, labor rights, national security, the developing world, and non-market economies will also be considered. The course will also focus in depth on United States domestic trade remedies, including antidumping, countervailing duties, section 301 and 337 actions as well as on other international trade restricting practices.

LAW 8834 Tax Procedure Credits: 2
Problem-method study of procedures and taxpayers' rights when deficiencies are assessed by the Internal Revenue Service; tax liens; commencement of litigation in Tax Court, Federal District Court, and Court of Claims.

LAW 8834R Tax Clinic Credits: 1-4
Students in the Kansas City Tax Clinic represent low-income clients before the IRS and in United Stated Tax Court under the supervision of the Clinic Directors. Cases may include delinquent filers, examinations, administrative appeals, Tax Court litigation, innocent spouse, and collection cases including due process, installment agreements, and offers-in-compromise. Students also receive classroom instruction in tax procedure subjects and in client counseling. There is a ten hour orientation prior to the beginning of classes. There is also an additional five hour lecture held during the course of the semester.

LAW 8837 Negotiating Mergers And Acquisitions Credits: 2-3
Problem-method study of corporate, tax, securities, and business problems entailed in buying and selling a corporation, fundamental corporate changes: recapitalizations, mergers, sale of assets, sale of stock, and tender offers; corporate finance and rehabilitation of financially distressed corporations.

LAW 8838L Legal Accounting Credit: 1
Accounting as it relates to the work of a lawyer. Understanding financial statements (balance sheet, income statement, cash flow, shareholder's equity), analysis of financial statements; deferral concepts (inventory, depreciation, prepaid expenses), understanding accounting principles, valuation (present value, future value.).

LAW 8838R Tax Practicum I Credits: 1-3
Practical skills training in the sources and methods of tax research (including electronic database sources) using problem method approaches; analytical and planning skills are developed through in-depth case study research.
LAW 8843 Federal Income Taxation Of Estates And Trusts Credits: 2
Income tax problems of the fiduciary; grantor's trusts; income, estate, and gift tax problems relating to optional or discretionary acts of the fiduciary in retention and/or distribution of income or corpus.

LAW 8845 Deferred Compensation Credits: 2-3
Problem-method study of deferred compensation arrangements; qualified pension and profit sharing plans; individual retirement accounts; qualified stock option plans; other methods of deferred compensation.

LAW 8847 Personal Injury Tort Litigation Credits: 1-2
Introduction to the fundamentals of personal injury litigation, including case intake, pre-discovery investigation, settlement demand packages and other communications with opposing counsel, injury petitions, initial discovery, depositions, retention of experts, pre-trial motions, and mediation.

LAW 8848R State And Local Taxation Credits: 2-3
State and local taxation of income, sales and property, including the apportionment of tax obligations to multiple states. Restrictions imposed by constitutional doctrines such as the uniformity and equality requirement and the prohibition on interfering with interstate commerce.

LAW 8850 Applied Evidence Credits: 1-3
Problems and simulations in evidence; application of the rules of evidence in many of the following topic areas: objections to the form of the question; hearsay; lay and expert opinion; authentication, the introduction of real and demonstrative evidence, rules of relevance, cross-examination and impeachment.

LAW 8858 Consumer Protection Credits: 2-3
Protection of consumers from false advertising, unfair sales practices, and consumer credit and debt collection abuse. Topics which may be covered are Truth-in-Lending Act, Uniform Consumer Credit Code, Fair Debt Collection Practices Act; Interstate Land Sales Disclosure Act, Federal Trade Commission and Missouri Attorney General activity, Missouri consumer credit legislation, consumer warranties, consumer class actions, abusive collection practices.

LAW 8858L Consumer Protection Lab Credit: 1
This course provides students with skills needed for reviewing and investigating consumer complaints; developing problem solving strategies and drafting Attorney General letters, pleadings, and other documents necessary for the enforcement of the complaint. Students work with the Missouri Attorney General's office to screen consumer complaints and recommend actions. 
Prerequisites: LAW 8858.

LAW 8861 Real Estate Finance Credits: 2-4
Real estate investment and development; basic financing instruments (e.g., mortgages, deeds of trust, contracts for deed); foreclosure remedies; home finance, national housing market; financing of commercial and industrial properties; construction financing; mechanic's liens; priority disputes; bankruptcy issues affecting real estate security interests.

LAW 8863 Fair and Affordable Housing Seminar Credits: 1-3
This seminar course will explore issues of fair and affordable domestic housing law through a real property lens. It will be unique in its approach to housing law from an advanced property perspective. Through a mixture of classroom lectures and discussions, experiential exercises and scholarly writing, housing issues will be examined from many perspectives including that of residential and commercial owners, developers, homeowner associations, landlords, tenants, and government regulators.
Prerequisites: LAW 8541 Property I; LAW 8542 Property II.

LAW 8867R Social Security Administration Court Internship Credits: 1-3
Students assist an Administrative Law Judge in performing duties handled by the Social Security Administration, including reviewing files of pending cases; conducting legal research; attending hearings and participating in conferences, as assigned; preparing recommendations for the disposition of motions and for on the record decisions; and preparing draft decisions. Students are supervised by an attorney advisor and attend regular conferences with a supervising faculty member who reviews copies of all clinic written work that may be so reviewed under Social Security Administration rules. 
Prerequisites: LAW 8764.

LAW 8868 Trusts: Planning, Drafting, Administering & Litigating Credits: 2-3
Focus on advanced planning and drafting of inter vivos private express trusts for individuals, including proper use of readily available forms (tax-related drafting limited to marital and charitable deduction forms), consideration of trustee's duties, powers and liabilities pursuant to the Missouri Trust Code and related cases, and special emphasis on the recently-adopted Uniform Investor Act and the significant changes it has introduced to Missouri trust investment law.
Prerequisites: LAW 8611.

LAW 8870 Seminar in Educational Equality and the Law Credits: 1-3
This seminar will explore the legal aspects of providing educational equality in a nation of diverse ethnicities, cultures, religions, sexual identities, and socio-economic conditions. Through the lenses of legal scholarship and primary legal authorities, students will examine past and current attempts to address the inequities that have long plagued U.S. public education in the K-12 setting. In addition, the course will include extensive instruction in scholarly research, writing, and publication skills.
LAW 8870R Education Law: Government & Legal Aspects Of Education Credits: 2-3
This course is designed to give students an introduction to the major legal doctrines that affect K-12 schools, as well as the policies that underlie or are changing those doctrines. Students should gain a working understanding of the impact of federal and state law on the operation of schools, the rights and responsibilities of teachers and administrators, and the rights of the students who attend those schools.

LAW 8874 Tax-Exempt Organizations Credits: 2
An in-depth examination of the state and federal laws that govern the formation and operation of tax-exempt organizations, with emphasis on Sec. 501 (c) (3) charities; criteria for tax-exempt status; IRS application and reporting procedures; unrelated business income tax issues.

LAW 8875 Real Estate Transactions Credits: 2-3
Practice-oriented course, including the development of drafting skills, in which questions involving basic residential and commercial real estate sales and civil and leasing transactions are considered, such as title, title insurance, contract conditions, contract remedies, commercial leasing (office and shopping center issues) and issues concerning and confronting brokers; special emphasis on Missouri and Kansas law.

LAW 8875L Legal Context of Real Estate Decision Making Credits: 1-3
A study of fundamental matters involved in real estate decision making, including an understanding of basic real estate terms of art; the unique attributes of commercial real estate the distinction between office, retail and industrial property leases; the significant business and legal issues that arise in lease negotiations; financing issues, including the negotiation of construction and permanent loan documents; loan application/brokerage agreements; the impact of bankruptcy on real estate transactions; an explanation of different types of insurance coverage applicable to commercial real estate; and construction issues, including how buildings are constructed and the "green" movement impact on current construction practices.

LAW 8876 Sales and Leasing Credits: 1-3
This course is a survey course on the law of sales leasing. The course will examine the sale of goods under Article 2 of the Uniform Commercial Code (UCC), studying the rights, duties, and liabilities of parties to modern sales transactions. The course will also analyze Article 2A (leasing) of the UCC and explore the rights, duties, and liabilities of parties to modern lease transactions. The course will also consider the United Nations Convention on Contracts for the International Sale of Goods (CISG). Topics encompassed will include sale and lease contract formation, establishment of express and implied contract terms,

LAW 8877 Bankruptcy Court Internship Credits: 1-3
The United States Bankruptcy Courts have jurisdiction over claims arising under federal bankruptcy law. Cases in these courts present issues arising not only under the Bankruptcy Code, but also in many other areas, such as secured transactions, contract law, labor law, and tax law. Students will, among other duties, observe court proceedings, assist in writing legal memoranda, and draft opinions. Enrollment in the Bankruptcy Court Clerkship Program is limited to students who have completed both Secured Transactions and Debtors Creditor’s Rights. Students work at least 70 hours at the court; and attend monthly conferences with the professor in charge of the program’s over site.

LAW 8881 Seminar on the Supreme Court Credits: 2-3
Students simulate the work of the Supreme Court on nine cases presently pending before that court. The student justices study the briefs and related material filed in each case, discuss and vote on the cases, and write majority and dissenting opinions. Enrollment in the seminar is limited, fittingly, to nine justices.

LAW 8881P Seminar in Presidential Power Credits: 2
In this course students will examine unsettled and often controversial questions regarding the extent of presidential power in sensitive contexts. Emphasis is placed on how these issues are implicated in current national life. Students will examine and be expected to actively discuss during class sessions issues such as the president’s authority to declare enforcing federal law, the extent of the president’s authority to engage in overseas military action without congressional approval (and, assuming approval is required, what form that “approval” must constitutionally take), presidential authority to indefinitely detain “enemy combatants” at Guantanamo Bay, Cuba (or similar locations), the legal effect of presidential signing statements, the extent of presidential oversight authority over administrative agencies, and the propriety of the Court’s invocation of the “political question doctrine” when confronted with sensitive questions regarding presidential power.

LAW 8882 Patent Law Credits: 2-3
This course will focus primarily on substantive U.S. patent law, including the laws governing the patentability of particular inventions, the patent procurement process, the rights granted by a patent, and patent enforcement and litigation. As time permits, the course will explore policy issues raised by the current patent system, discuss proposals for reform and international harmonization, and consider alternatives to patent protection such as trade secret and regulatory exclusivity.

LAW 8882R Patent Prosecution Credits: 2-3
This course will focus primarily on the practical application of substantive U.S. patent law, including the laws governing the patentability of particular inventions, the patent procurement process, the rights granted by a patent, and patent enforcement and litigation. In particular, this class will focus on teaching students how to draft a patent application and how to prosecute the application in the U.S. Patent and Trademark Office. This class will be designed to mirror the substantive patent law being taught in the Patent Law course. For example, the Patent Law course will present the law and theory of obviousness or novelty; the Patent Prosecution course will instruct in how to deal with and respond to an obviousness or novelty rejection from the U.S. Patent and Trademark Office.

Co-requisites: LAW 8882.
LAW 8884 White Collar Crime Credits: 2-3
Examines substantive federal law in the areas of fraud, public corruption, financial crimes and conspiracy; it also includes examination of procedural and policy issues related to business and white-collar investigations.
Prerequisites: LAW 8634.

LAW 8885 Seminar In Philosophy And Law Credits: 2
An examination from a philosophical perspective of the historical and conceptual relationships present in the evolution, development and analysis of law, including natural law theory, legal positivism and legal realism, and focusing on a specific area of controversy in the law.

LAW 8885H The Quest for a Satisfying Career in Law Credits: 1-2
An examination of what research suggests about the likelihood that a career in law will prove satisfying, including an exploration of the specific types of firms and work environments that are most likely to produce happy lawyers; a consideration of what studies from the fields of neuroscience and psychology suggest about steps that lawyers, law firms, and law schools can take to improve prospects for career satisfaction; and a consideration of how high happiness should rank among life’s goals.

LAW 8886 Corporate Taxation I Credits: 2-3
Tax treatment of corporations and shareholders with respect to formation, non-liquidating distributions, stock dividends, redemptions and liquidations. The course may also cover the personal holding company tax, the accumulated earnings tax, collapsible corporations, multiple corporations and tax consequences of corporate reorganizations; survival of tax attributes; acquisition of loss corporations; and a survey of consolidated return reporting.

LAW 8887 Corporate Taxation II Credits: 3
Tax consequences of corporate reorganizations; survival of tax attributes; acquisition of loss corporations; and a survey of consolidated return reporting.
Prerequisites: LAW 8886.

LAW 8888A Partnership Taxation II Credits: 1-3
A study of selected topics in tax planning and in negotiating and drafting organizational documents (e.g. partnership agreements and operating agreements) for entities that will be classified as partnerships for tax purposes, including advanced exploration of issues relating to special allocations and book/tax disparities, optional adjustments to basis, payment to retiring and deceased partners, the impact of I.R.C. Section 751 on partnership distributions and on sales and exchanges of partnership interests, partnership mergers and divisions, partnerships with tax-exempt partners, and tiered partnerships.
Prerequisites: LAW 8888R.

LAW 8888R Partnership Taxation I Credits: 2-3
An in depth examination of the tax principles governing partnerships limited liability companies and other unincorporated organizations classified as partnerships for tax purposed, including questions involving the tax consequences of the formation of such organizations, operating distributions, basis computations, liquidating distributions, and sales of ownership interests.

LAW 8889R Subchapter S Taxation Credits: 1-2
An examination of the tax principles governing Subchapter S Corporations, including the tax consequences of their formation; the taxation of their income and the deductibility of their losses; operating distributions; basis computations; liquidations; distributions; and sales of S Corporation shares of stock.
Prerequisites: LAW 8886.

LAW 8890A Sports Law I, Amateur Sports Law Credits: 2-3
Coverage of various amateur sports law issues with a focus on the regulation of interscholastic, intercollegiate sports, Olympic and international sports, and sports broadcasting; including such topics as constitutional law, tort law, contract law, and Title IX gender discrimination; and a consideration of federal disability discrimination laws, the status of collegiate athletes who participate in big time sports programs, the regulatory authority of the National Collegiate Athletics Association, The National High School Athletic Association, international and Olympic sports organizations.

LAW 8890B Sports Law II, Professional Sports Law Credits: 2-3
A focus upon the multitude of legal issues and unique relationships in the sports industry, including, among other issues, professional team sports, other professional sports, facilities management in professional sports, legal implications and the practical realities of the unique labor-management relationships in professional sports. The most significant areas to be studied in the context are antitrust, labor, communications, taxation, contracts law, and intellectual property law.

LAW 8890C The Emergence and Transformation of Concussion Litigation Credits: 1-2
This course will examine the emergence, transformation and development of concussion litigation. Concussion litigation spans multiple areas of the legal landscape – from torts, civil procedure, sports law, labor and employment law and, inter alia, medical-legal aspects. We will begin with the theoretical underpinnings of the emergence of concussion litigation. We will then look at how society, the legislature and the courts have responded to sports concussions. This will require us to analyze what the concussion litigation landscape looks like currently and how it will be shaped in the future.
LAW 8890I Selected Topics in International and Comparative Sports Law Credit: 1
The course introduces students to the basic structure and techniques of dispute resolution utilized in international sports law. The field of international sports law is an ever-expanding area of the law and the term “international sports law” refers to an emerging and distinctive body of rules that govern transnational sports and sporting activities. Distinct bodies of international sports law have developed under the aegis of the Olympic Charter that applies to international sports competition well beyond Olympic competition itself, and encompasses both traditional Olympic sports and non-Olympic sports. Many international sports law disputes are now resolved in the Court of Arbitration For Sport (CAS), a body that may rightly be referred to as a Supreme Court for a very wide array of international sports disputes involving such matters as doping, eligibility, cheating, violence, discrimination, commercialization and intellectual property.

LAW 8890R Entertainment Law Credits: 2-3
An examination of the legal issues affecting the print and broadcast media. Topics covered may include copyright, antitrust, spectrum allocation, right of privacy, first amendment issues (prior restraint, obscenity, commercial speech, defamation and access to both information and judicial proceedings), licensing and new technologies including and beyond cable television.

LAW 8890X Sports Law Internship Credits: 2
Through internship in not-for-profit and for-profit sectors of the sports industry, students will learn about the legal and business aspects of various organizations within the amateur and professional sports industries. Students will observe and assist legal counsel with such activities as providing legal research, planning and conducting negotiations, and drafting contracts and other legal documents. Students will complete a significant legal research memorandum on an issue related to their internship. Faculty and Legal Aid attorney supervision. Limited enrollment.

Co-requisites: LAW 8890A (or LAW 8890B).

LAW 8892R Taxation Of Estates, Gifts And Trusts Credits: 2-3
Problem method study of estate, gift and generation skipping transfer taxes and the income taxation of estates and trusts. Emphasis on lifetime and post-mortem planning as well as compliance requirements.

LAW 8893 International Taxation Credits: 2-3
An introduction to the taxation of income of U.S. citizens, residents and corporations from foreign sources and the income of foreign residents and non-residents from U.S. sources. Topics may include sources of income rules, foreign tax credit provisions, the earned income exclusion for foreign source income, income tax treaties and a survey of the tax treatment of U.S. investments made offshore.

LAW 8893R Taxation Of Property Transactions Credits: 2-3
Income taxation of property transactions. Detailed study of capital gains and losses, passive losses, the at-risk rules, and the alternative minimum tax.

LAW 8895S Jury Selection Credit: 1
Students study the purpose of voir dire and the law pertaining to jury selection and receive hands-on experience in selecting a jury role-playing as lawyers; jurors, and presiding judge in a concluding 2 1/2 hour courtroom simulation (where a jury is selected after making challenges for cause and exercising preemptory strikes); and learn that jury selection is an art not a science—which needs to be tailored to the facts of the case and the witnesses the attorney expects to present. An actual case involving a badly injured young plaintiff and a large corporate defendant—where liability is questionable—is used for the simulation. Students learn active listening skills and how to interpret non-verbal behavior. Examples form prominent, practicing lawyers are presented. The course is graded on a pass/fail basis.

LAW 8897 Seminar In Analytical Strategies Credits: 1-2
Pedagogical philosophy of legal education; common themes in first-year legal education; techniques of cooperative learning of legal materials. Students may act as study group leaders for various first-year course subjects. Ungraded.

LAW 8897E Introduction to Law Study Credits: 0
This course is designed to help incoming law students navigate the challenging transition to law study. The course is a rigorous, five-day introduction to law school. Each day focuses on a “stage” of law school learning: orientation, class preparation, class, after class review, exam preparation, and exam taking. The course addresses the skills of reading, writing, and thinking at each of these stages through simulated classes, direct teaching of study skills, written and oral exercises, and individual meetings with faculty.

LAW 8897R Governmental and Legal Aspects of Education Credits: 2-3
Study of legal issues within higher education. Focus is on state and federal law and regulations as they pertain to issues from academic freedom to governance and administration. Focus on strategies for preventive law is a major component of the course.

LAW 8898 Construction Law Credits: 2
The Construction Law course would emphasize state and federal construction law and would provide the students with practical experience in drafting contracts, negotiating disputes, and conducting a mock arbitration. The course would cover the contract responsibilities and remedies of contractors, subcontractors, design professionals, sureties and owners, including the United States Government. The course would emphasize the controlling state and federal statutes and regulations, as well as case law which illustrates the application of the statutes and other areas of law not covered by statute. The classroom sessions will include discussion of the practical aspects of legal practice in the construction industry, with instruction and examples regarding the drafting of documents and contracts, negotiation of disputes, and decision-making regarding the type of dispute resolution forum to recommend to a client.

LAW 8900 Takings Law Credits: 1-2
An examination of all aspects of takings law including the historical and constitutional basis for eminent domain, the public use requirement, regulatory takings, development exactions, and alternatives to takings. Comparisons between U.S. and state regimes and comparative takings law.
LAW 8901 Advising Life Sciences and Technology Entrepreneurs Credits: 1-2
A condensed study of the key legal issues for the entire cradle-to-grave (founding-to-exit transaction) life cycle of high-growth technology and life sciences ventures, focusing on these critical phases: structuring and organizing the high-growth venture; relationships with key constituencies; acquiring, protecting and licensing intellectual property assets; financing transactions and realizing wealth through exit transactions.
Prerequisites: LAW 8601.

LAW 8902 Topics and Cases Related to In-House Counsel Credit: 1
This course surveys a wide range of legal issues from the in-house counsel perspective, including those related to professional responsibility, corporate governance, transactions, compliance, risk management, intellectual property and litigation. Through the use of case studies, students will use legal principles and business judgement to analyze scenarios in various corporate settings.
Prerequisites: LAW 8601.

LAW 8903 Fundamentals of Legal Investigations Credits: 2
This course focuses on skills and methods needed to fully obtain facts so as to determine strategies and analyze possible outcomes for all stages of litigation, both criminal and civil. Detailed information on searching public records, Internet sites, and other document retrieval, as well as methods to locate and interview people, will be provided to students through an interactive format. Using an investigation on parallel tracks approach, i.e., paper and people, students will learn the relationship between documents/physical evidence and thorough, reliable interviewing of clients and witnesses.

LAW 8904 Multicultural Lawyering and Spanish for Lawyers Credits: 1-2
In this course, students acquire skills and knowledge needed to represent Spanish speaking clients, including mastering selected Spanish legal vocabulary, working with translators, conducting initial client interviews, and identifying cultural impacts on communication. Ethical dimensions of cross-linguistic and cross-cultural counseling are examined and students receive training in counseling skills.
Prerequisites: Audition with professor to determine minimum Spanish language ability.

LAW 8905 Intellectual Property Litigation Credits: 2
Advanced engagement with intellectual property concepts and practical skills in litigation of these cases. The course will address the three essential areas of intellectual property law concept (copyright, patent, and trademark) and explore how these differences translate into different procedural and substantive considerations in litigation. Simulations of various stages of litigation will focus on litigation strategy and drafting skills.

LAW 8907 Seminar in Advanced Trademark Credits: 2-3
This course examines advanced substantive topics in various trademark areas, some of which are not covered in prior classes and some of which explore areas of controversy in greater depth. Students will also be exposed to the trademark administrative process in greater depth.

LAW 8908 Family Tax Law Credit: 1
The study of federal tax issues relevant to attorneys who practice family law.
Prerequisites: LAW 8552.

LAW 8909 State and Local Government Law in a Nutshell Credit: 1
This course will examine the laws and structures through which Kansas City local government operates. Topics will include the context for local government functions, the city charter and structure of local government, and examination of the particular topics such as economic development tools, property tax abatement, and local agency interactions.

LAW 8910 Intellectual Property Clinic Credits: 2-3
Under the supervision of faculty who are licensed attorneys, students will counsel start-up companies and their owners and assist with intellectual property matters related to Trade Secrets, Copyright Trademark, Patent and planning in connection with concepts related to Business Torts. Students will conduct patentability and trademark searches, prepare patent landscape reports, trademark registrations, opposition and cancellation responses and assist Clinic clients in identifying trade secrets and potential patentable inventions and preparing intervention disclosures as well as provide general intellectual property information and advice to Clinic clients.

LAW 8911 Winning Voir Dire Credit: 1

LAW 8912 Client Interviewing Credits: 1-3
Basics of client interviewing. Training will include the following components: a) Passive vs. Active Listening b) Forms of Questions c) Preliminary Problem Identification d) Techniques for conducting Initial Interviews e) Providing Information the Supervising Attorney Wants/Needs”

LAW 8913 Mental Health Investigation 1 Credits: 1-2
This is a one-week, one or two-credit hour practical skills course which focuses on skills and methods needed to identify and understand mental health issues and phenomena that every lawyer will encounter. Students will examine what mental illness is, how it affects sufferers, and how it presents to lay observers so that it can be understood and explored in relevant legal contexts. This course is offered in connection with the Mitigation Skills Workshop, which trains lawyers representing capital clients how to interview clients and witnesses for information relevant to developmental, cognitive and mental health issues; students will participate in role-playing an practical skills exercises with Workshop participants.

LAW 8913B Mental Health Investigations II Credits: 1-2
This is the second half of a practical skills course which focuses on skills and methods needed to identify and understand mental health issues and phenomena that every lawyer will encounter. This course is offered in connection with the Mitigation Skills Workshop, which trains lawyers representing capital clients how to interview clients and witnesses for information relevant to developmental, cognitive and mental health issues; students will participate in role-playing an practical skills exercises with Workshop participants.
LAW 8914 Selected Reading in Legal Scholarship Credit: 1
Students and faculty will read and discuss a substantial book by a legal scholar examining a contemporary issue in law and society from a historical, comparative, or jurisprudential perspective. The course will include discussions with the author and students will complete a short project related to the book topic.

LAW 8914F Law and Film Credits: 1-3
Exploration of the function of law and lawyers in society by examining legal decisions, statutes, and legal commentaries in the context of films, including classic, contemporary mainstream, foreign, documentary, and independent films. Students will view and critique films in light of assigned reading materials. Using films as analytical tools, the seminar examines the ways in which popular culture products (such as films and television) both reflect and change the social views about law and lawyers.

LAW 8915 Social Venture Creation Credit: 1

LAW 8917 Law and Human Trafficking Credits: 1-2
Theory and legal structures relating to human trafficking, including practical skills in representing victims.

LAW 8919 The Insanity Defense Credit: 1
This course will review several aspects of the insanity defense: its history, how it works, and the public perception of the defense. The course will focus on the trial of John Hinckley Jr. for attempted murder of President Ronald Reagan as a vehicle for discussing how the defense is presented, the changes in the defense that the verdict in that trial brought about, recent significant cases and possible future changes in the defense.

LAW 8920 Introduction to Islamic Law Credits: 1-2
This course will provide a basic overview of Islamic law from its origins to the present. Students will study both primary and secondary sources of Islamic law. The course will also compare Islamic legal concepts to those in common law countries.

LAW 8921 Selected Projects in Law, Technology and Public Policy Credits: 1-6
This "studio" course involves the creation of interdisciplinary teams of law and graduate students from UMKC and other graduate and law schools and their media laboratories to work on cutting edge projects at intersections of law, technology and public policy.

LAW 8922 Access to Justice (A2J) Workshop Credits: 1-6
Students will identify an area of law or law process that can be made more accessible with the application of a technology solution. Specifically the students, after analyzing the area of law, will use the CALI A2J-Author guided interview software and document assembly software to create the forms and directions to assist self-represented litigants.

LAW 8923 Interdisciplinary Perspectives on Counseling an Aging Population Credits: 1-2
Study and practice of interdisciplinary perspectives of aging and core competencies in active listening, narrative translation, and service opportunity identification. Using a combination of readings, simulations, skills trainings, team preparations and presentations of case studies and individual reflective papers, the course is designed to engage professional students in understanding each discipline's approach to describing the problem, interacting with patients/clients in identifying the problem and sharing perspectives on developing plans to prevent and address the problem with and on behalf of these patients/clients.

LAW 8925 Entrepreneurial Urban Development Credits: 1-4
The projects-based Entrepreneurial Urban Development course will feature interdisciplinary teams of faculty and graduate or upper-level undergraduate students providing analysis on real estate-based projects relating to the development or redevelopment of properties in urban areas, with a particular focus in, but not necessarily limited to, Kansas City, MO and Kansas City, KS. Students enrolled in the course will receive classroom instruction through modules related to development, land use controls and entitlement processes, affordable housing law and policy, cost analysis, market analysis, feasibility analysis, investment analysis, finance, incentives, design, urban planning, and community engagement.

LAW 9740A Missouri Appellate Practice Credit: 1
Basic rules and procedures for preparing an appeal in Missouri.

Life Sciences (LIFE-SCI)

Courses
LIFE-SCI 5899 Required Graduate Enrollment Credit: 1

Life Sciences - Cell Biology and Biophysics (LS-CBB)

Courses
LS-CBB 5501 Graduate Biophysical Principles Credits: 3
The focus of this course is on the theoretical principles underlying the biophysical methods used by a wide range of biological chemists. The approaches covered include thermodynamics, chemical kinetics, molecular interactions, transport properties, quantum mechanics, optical spectroscopy, and molecular structural approaches involving nuclear magnetic resonance spectroscopy, X-ray diffraction, and Mass spectrometry.

LS-CBB 5504 Graduate Virology Credits: 3
Survey of the molecular biology of animal, plant, and bacterial viruses. The course will emphasize the molecular mechanisms of virus replication, viral pathogenesis, and the use of virus as model systems to study mammalian cells.
LS-CBB 5505 Molecular and Cellular Neurobiology Credits: 3
The molecular basis of chemical and electrical communication between nerve cells. Topics will include: neurotransmitters, neuropeptides, receptors, channels, second messengers, cytoskeleton, cell adhesion, development, neuronal plasticity and psychopharmacology.

LS-CBB 5520 Cell and Molecular Biology II Credits: 3
A presentation of the cellular and subcellular organization and function of eukaryotic cells. Discussions will emphasize basic concepts by which structure and functions are integrated.

LS-CBB 5530 Cell and Molecular Biology I Credits: 3
Molecular aspects of gene structure and function in prokaryotic and eukaryotic organisms and their viruses. Emphasis in genome structure and organization and regulation of gene expression.
Co-requisites: LS-MBB 5561.

LS-CBB 5538 Molecular Recognition in Cellular Biology Credits: 2
Graduate Research Seminar. Studies of the latest development leading to an increased understanding of cellular biology processes when the experimental tools for structure biology analysis and molecular genetics are applied.
Co-requisites: LS-MBB 5561.

LS-CBB 5566 Membrane Biochemistry and Biophysics Credits: 3
Structure and function of biological membranes including architecture, dynamics, models, biochemical compartmentation, energy transduction, transport mechanisms, membrane protein structures, and cell surface receptors.

LS-CBB 5569 Structural Biology, Methods and Strategies Credits: 3
Analysis of strategies and methodologies such as X-ray crystallography, nuclear magnetic resonance and advanced microscopy procedures including imaging analysis for the study of relationships of higher order macromolecular structures to biological functions.
Prerequisites: LS-MBB 5561, LS-MBB 5562.

LS-CBB 5583 Current Topics in Cell Biology and Biophysics Credits: 1-3
Current topics and recent developments in cell biology and biophysics with emphasis on rapidly developing research areas.

LS-CBB 5591 Directed Individual Studies in Cell Biology and Biophysics Credits: 1-6
Intensive reading and/or research in an area selected by the graduate student in consultation with the instructor.

LS-CBB 5596 Advanced Experimental Cell Biology I Credits: 2
Structured laboratory work with individual tutorial sessions designed to familiarize first year Interdisciplinary Ph.D. students with concepts and techniques of modern cell biology research. 1-2 hr/wk tutorial and 15-20 hr/wk of laboratory work.
Co-requisites: LS-MBB 5561.

LS-CBB 5597 Advanced Experimental Cell Biology II Credits: 2
Continuation of LS-CBB 5596.

LS-CBB 5599 Thesis Research in Cell Biology and Biophysics Credits: 1-12
Research and thesis preparation for M.S. degree candidates.

LS-CBB 5612 Seminar in Cell Biology and Biophysics Credit: 1
Presentation and discussion of selected areas in cell biology and biophysics. This course may be repeated by doctoral students for a maximum of 3 credit hours.

LS-CBB 5690 Analytical Methods in Cell Biology and Biophysics Credits: 1-4
A course that emphasizes the development of skills in experimental design, analytical methods and instrumentation as applied to problems of interest to modern cell biology and biophysics, and analysis of results. Can be repeated up to a maximum of eight hours total.
Prerequisites: LS-MBB 5561, LS-MBB 5562.

LS-CBB 5699 Dissertation Research in Cell Biology and Biophysics Credits: 1-12
Research and dissertation preparation for interdisciplinary Ph.D. degree students who have Cell Biology and Biophysics as a discipline.
Life Sciences - Molecular Biology and Biochemistry (LS-MBB)

Courses

LS-MBB 5503 Eukaryotic Molecular Biology Credits: 3
Molecular aspects of gene structure and function in eukaryotic organisms and their viruses. Emphasis on genome structure and organization, gene expression and regulation and the molecular basis of growth and development.


LS-MBB 5509 Graduate Developmental Biology Credits: 3
Principles of development and differentiation of structure during embryology in animals. Molecular, cellular and organismal level concepts and mechanism will be considered.

LS-MBB 5510 Graduate Biochemistry for Nurse Anesthetists Credit: 1
This course will present the fundamentals of biochemistry necessary for the practice of nurse anesthesia, specifically, the structure and characteristics of biomolecules found in the cell, how molecules are metabolized to generate biochemical energy, and the basic mechanisms to regulate metabolic processes with regard to the nutritional state of the organism. The course is limited to graduate students in the nurse anesthetist program or in other disciplines where a fundamental understanding of biochemistry would be useful.

LS-MBB 5538 Molecular Recognition in Molecular Biology Credits: 2
Graduate Research Seminar. Analysis of the impact of most recent developments in molecular genetics and structural biology as related to fundamental molecular recognition events.

Co-requisites: LS-MBB 5561.

LS-MBB 5561 General Biochemistry I Credits: 3
The first semester of a two-semester sequence in general biochemistry. This course will emphasize the structure of biological molecules, thermodynamics and kinetics of biological reactions, and selected aspects of energy metabolism and metabolic pathways.

Prerequisites: CHEM 322R.

LS-MBB 5562 General Biochemistry II Credits: 3
The second semester of a two-semester sequence in general biochemistry. This course will emphasize selected aspects of the biochemistry of metabolism and macromolecular assemblies. The molecular basis of genetic and metabolic regulation will be discussed.

Prerequisites: LS-MBB 5561.

LS-MBB 5565 Structure And Function Of Proteins Credits: 3
This course will discuss structure-function relationships of proteins. Topics will include: methods of structure-function analysis, catalytic mechanisms, and regulation of enzyme activity.


LS-MBB 5567 Physical Biochemistry Credits: 3
Application of physical and chemical principles to elucidate structure and function of biochemical systems. The various modes of interactions between biologically important molecules and the specificity of their interaction will be examined through selected literature examples.


LS-MBB 5569 Current Topics in Molecular Biology and Biochemistry Credits: 1-3
Current topics and recent developments in biochemistry and molecular biology with emphasis on rapidly developing research areas.


LS-MBB 5591 Directed Individual Studies In Molecular Biology And Biochemistry Credits: 1-6
Intensive readings and/or research in an area selected by the graduate student in consultation with the instructor.


LS-MBB 5596 Advanced Experimental Molecular Biology I Credits: 2
Structured laboratory work with individual tutorial sessions designed to familiarize first year Interdisciplinary Ph.D. students with concepts and techniques of modern molecular biology research. 1-2 hr/wk tutorial and 15-20 hr/wk of laboratory work.

Co-requisites: LS-MBB 5561.

LS-MBB 5597 Advanced Experimental Molecular Biology II Credits: 2
Continuation of LS-MBB 5596.


LS-MBB 5599 Thesis Research in Molecular Biology and Biochemistry Credits: 1-12
Research and thesis preparation for M.S. degree candidates.

LS-MBB 5611 Seminar in Molecular Biology and Biochemistry Credit: 1
Presentation and discussion of selected areas in biochemistry and molecular biology. This course may be repeated by doctoral students for a maximum of 3 credit hours.

LS-MBB 5690 Analytical Methods in Molecular Biology and Biochemistry Credits: 1-4
A course that emphasizes the development of skills in experimental design, analytical methods and instrumentation as applied to problems of interest to modern molecular biology and biochemistry, and analysis of results. Can be repeated up to a maximum of eight hours total.
Prerequisites: LS-MBB 5561, LS-MBB 5562.

LS-MBB 5699 Dissertation Research in Molecular Biology and Biochemistry Credits: 1-12
Research and dissertation preparation for interdisciplinary Ph.D. program students who have Molecular Biology and Biochemistry as a discipline.

Management (MGT)

Courses
MGT 5501 International Business Environment Credit: 1.5
The aim of this course is to provide a broad introduction of the international business environment. Students will develop understanding of different economic, cultural political and legal environments affecting international business activities. They will further explore why international trade and government interventions occur among and across countries and how world financial institution have developed historically.

MGT 5502 Leadership in Organizations Credit: 1.5
This course focuses on how organizations work and how leaders can help them work better. Its goal is to provide ideas, tools, and tactics that will help students become more effective leaders. The course is designed to challenge students conceptually through readings, discussions, and developmental assessments, and to challenge at the level of self-awareness and action through teamwork, reflective activities, role plays, case applications, ad “leadership challenges”.

MGT 5503 Leadership Residency Credits: 3
This course introduces students to fundamentals of business and effective leadership practice by looking at two different academic areas. Team and Community Building focuses on the fundamentals of collaborative teamwork and basic concepts in the program’s leadership curriculum. The other area, Financial Decisions and Societal Goals, overviews approaches to management strategy rooted in financial modeling and analysis.
Prerequisites: Admission to Executive MBA Program.

MGT 5504 Immersion in Legal and Ethical Management of the Enterprise Credit: 1.5
This course will introduce students to some of the common legal and ethical issues that confront entrepreneurial businesses and non-profit organizations. Students will be exposed to the major differences between U.S. and international approaches regarding these issues. Working individually and in groups, students will be asked to solve problems regarding business formation, employment, intellectual property, contract formation and dispute resolution. Students will demonstrate their understanding by writing about real-world examples involving the legal and ethical concepts covered in the course.

MGT 5506 Contract Negotiation And Dispute Resolution Credits: 3
This course surveys the conceptual framework for negotiating legally binding contracts and examines contemporary institutions and processes for resolving contractual disputes. Particular attention will be given to identifying and appreciating strategies, practices, and specific rules by which binding contractual rights and duties are determined in the United States and in international jurisdictions. Working independently and in teams, students will assimilate the legal rules and negotiation strategies and apply them to common business transactions and disputes.

MGT 5507 Human Capital Management Credit: 1.5
This course seeks to provide managers with knowledge, skills, and resources to effectively manage human capital in organization of all sizes. It presents an overview of the theory, research, and practices used to strategically align HR policies and practices with the organization’s overall business goals. The course highlights how HR policies and practices can support business objectives in a diverse, global environment while supporting ethical principles. Within a strategic HRM framework, functional areas of staffing, training and development, performance management, total rewards (compensation and benefits), and managing employment relationships are covered.

MGT 5509 Strategic Management Credit: 1.5
This course covers the classic and contemporary conceptual models in the Strategic Management domain. Students study, compare, and critique the models as they apply them to written, live, and videoed cases. The selected set of cases includes companies focused on both domestic and international markets.
Prerequisites: (FIN 5507, DSOM 5507, MKT 5501) OR admission to the Accelerated Professional MBA program.
MGT 5512 Leading and Managing People, Teams and Organizations Credits: 3
Leading and Managing People, Teams and Organizations focuses on how aspiring leaders can enhance their effectiveness by addressing the human side of enterprise. It combines an exploration of key leadership tasks (e.g. shaping vision and purpose, engaging and influencing others, and sustaining momentum) with the study of essential human resources practices including hiring, developing, motivating, and creating a positive, rewarding workplace. Students will leave with concrete tools for understanding the organizational context, managing human capital, and bringing the best out of talented people.

**Prerequisites:** Students must be enrolled in a Bloch School graduate program.

MGT 5513 Economic Policy And Managerial Control Credits: 3
Students will study the analysis of the industrial foundations and economic institutions of modern times; the politics of industrial control, including power relationships in economic nationalization and planning and theory of managerial industrialism and business enterprise.

MGT 5514 Strategic Management in the Globalized World Credits: 3
As the world has become increasingly integrated through globalization, today's business leaders must possess an awareness of global business environments and ability to navigate them. The aim of this course is to provide a broad introduction of the international business environment and strategic management concepts, and how a firm can gain competitive advantages. Upon completion of this course, students will possess an ability to recognize the opportunities and challenges and formulate strategies in the globalized business environment.

**Prerequisites:** Students must be enrolled in a Bloch School graduate program.

MGT 5516 Leading Teams Credits: 3
This course is designed to enhance the student's understanding of designing, forming, developing, leading, and evaluating high-performing teams in traditional and virtual organizations. In-class projects will facilitate students' assessment and application of their own talents to the arts of member selection, coaching, and trust building to engage team members in productive and ethical group processes to achieve successful outcomes. Cases will be used to diagnose and potentially solve team difficulties considering intra-team, organizational, and extra-organizational factors.

**Prerequisites:** MGT 5502 OR PUB-ADM 5548 OR admission to Accelerated Professional MBA program.

MGT 5517 Leading Through Influence and Persuasion Credits: 3
This course challenges students to think about power dynamics in organizations and the array of influence approaches leaders develop and use to build support for their ideas and strategies. Using reading, case studies, and self-reflection tools, this course engages students in critical thinking about business scenarios that require a variety of leader influence strategies beyond traditional "command and control" approaches. Through exploration of concepts such as mapping the terrain, building social capital, and managing across, students develop a toolkit of ethical strategies for enhancing their organizational credibility and influence.

**Prerequisites:** MGT 5502 or MGT 5507.

MGT 5518 Leadership & Motivation Credits: 3
The course explores leadership as a relationship between leaders and those they are leading that enables people to work together in the service of shared goals. The course focuses on five basic tasks of leadership: (1) diagnosis-understanding what's happening; (2) shaping purpose and values; (3) enlisting and engaging people (including coaching, building high-performance cultures, motivating and inspiring); (4) sustaining momentum; (5) reflection and assessment.

MGT 5519 Conflict Management and Negotiation Strategies Credits: 3
This course explores the nature of successfully managing conflict in organizational settings, as well as the skills needed to be an effective negotiator. In this course, students will learn the difference between functional and dysfunctional conflict, how to stimulate functional conflict, various styles for managing conflict, ways to identify the desired outcomes of conflict, how to prepare for negotiations, various dispute resolution techniques, and the characteristics of effective negotiators. The course uses a variety of tools - readings, case studies, videos, and guest speakers - to engage students in real business scenarios related to managing conflict and negotiation strategies.

**Prerequisites:** MGT 5502 or MGT 5507.

MGT 5531 Leadership, Strategy and Human Resources Credits: 2
Focuses on the leader as a catalyst in developing high-performance, market-based cultures and as a human resource strategist in marshalling the workforce. Geared to the general manager, the course presents ideas and tools for building, bonding, and linking the workforce to accomplish the organization's mission. Topics include ideas and tools for identifying, recruiting, and retaining talent; developing and coaching subordinates; appraising and rewarding performance; and delegating to balance control and risk.

**Prerequisites:** Admission to Executive MBA program.

MGT 5533 Leading and Managing Change Credits: 3
This course provides students with analytical skills and insights to more effectively manage and lead change, especially within those organizations characterized by complexity and/or uncertainty. Using a variety of vehicles-including case studies, articles, and speakers-the course engages students in timely, real change scenarios and associated management challenges, such as adaptation in changing markets; turnarounds in troubled businesses; integrative change in acquisitions, and process change in stable businesses.

**Prerequisites:** MGT 5502 OR MGT 5507.
MGT 5538 Strategic Management Credits: 2
The study of the formulation and evaluation of strategy, including industry analysis, strategic positioning, and the boundaries of the firm. Students address the capacity of executive leadership to create and communicate a clear direction for a company's future.
Prerequisites: Admission to the Executive MBA Program.

MGT 5539 Managing a Complex Workforce Credits: 2
Students learn innovative strategies and tactics to attract, motivate, manage, and retain the critical human capital necessary for organizations to compete in a fast-paced, global economy.

MGT 5540 Business Law and Commercialization Credits: 2
Students learn some of the common legal and ethical issues that confront entrepreneurial businesses and non-profit organizations. The major differences between U.S. and international approaches regarding these issues will be discussed. Working individually and in groups, students will solve problems regarding business formation, employment, intellectual property, contract formation and dispute resolution.

MGT 5541 Strategic Leadership and Decision Making Credits: 2
Students will assess organizational issues and needs through multiple perspectives and develop incisive decisions and actions that reflect complex and changing circumstances and that recognize broad social consequences. Using best-practice frameworks, case applications, and reflective activities, students build a toolkit of innovative approaches to the core work of leadership: setting direction, marshaling resources, and inspiring support.

MGT 5542 Global Immersion Capstone Experience Credits: 2
Students develop cultural intelligence and in-depth knowledge of the relevant economic, political, and social climates of an international region. Drawing on the themes of innovation, social responsibility, and organizational entrepreneurship, students design and complete projects investigating key issues and providing recommendations. Students also organize and plan international travel under the supervision and guidance of a faculty adviser.

MGT 5543 Strategic Management Credits: 2
Stresses the formation of business strategies to achieve organizational objectives using strategic analysis and models based upon external and internal assessment of the organization's environment. Incorporates a variety of pedagogical approaches including cases and articles, class exercises and discussion, and experiential learning activities, as well as the completion and presentation of a comprehensive case analysis or project capstone.
Prerequisites: Admission to the Full-Time MBA program.

MGT 5545 International Management Credits: 3
Examination of the management of contemporary international business organizations through a study of the political, economic, social and technological factors and their relationship and impact upon the administrative activities and strategies of the international firm.

MGT 5546 Seminar in International Management Credits: 3
This course focuses on the issues that business organizations face in a global economy. The instructor will introduce global strategic decisions via case studies.
Prerequisites: MGT 5545.

MGT 5547 Global Initiatives in Management Credits: 3
Examines the management of contemporary international business organizations in the global economy. The course overviews the interrelationship and impact of political, economic, social, and technological factors, together with the complex challenges of strategy and execution in global companies. It includes a period of international residency.
Prerequisite: Admission to the Executive MBA program.

MGT 5552 International Study in Business Credits: 3
This course is designed to provide a study-abroad experience for the student. The course involves three components: study of international business through on-campus lectures and discussions; travel to a foreign country for visitations to business firms, government organizations, and cultural sites; and critique sessions of the international learning experience after travel completion.
Prerequisites: special application and selection process.

MGT 5557 Leadership And Organizations Credits: 2
Focuses on how organizations work and how leaders can set direction, marshal resources, and build support to move initiatives forward. The course provides tools and tactics for assessing organizations needs and constraints through multiple lenses, and assessing one's own leadership strengths and weaknesses for development and alignment with organization needs.
Prerequisites: Admission to Executive MBA Program.

MGT 5556 Attracting, Retaining, and Developing Human Capital Credits: 3
This course presents theoretical frameworks and practical applications for determining optimal person-organization fit and person-job fit within organizations. Emphasis will be placed on integrating recruitment, selection, retention, and training and development strategies and practices with overall business strategies. The importance of strategically planning and implementing staffing and development processes will be addressed as critical contributors to organizational effectiveness and sustainability.
Management Information Systems (MIS)

MGT 5567 Total Rewards Management Credits: 3
Total Rewards Management presents both theory and practice for designing effective rewards systems within organizations. The development of base pay and incentives and how they can be linked to performance will be covered. Characteristics of the work environment, such as recognition and development opportunities will also be considered in terms of their contribution to the total reward system.

MGT 5569 Leadership Accountability and the Legal Implications Credits: 2
Highlights the accountability of leaders and the challenges they face in the rapidly changing business environment. The course studies the political, social, ethical, and global environment in which American business organizations operate and the impact on today’s leaders. Topics include creating and maintaining affiliate relationships and joint ventures, as well as prohibitions in anti-competitive behavior, protection of intellectual property, operating within a regulated environment, and securities law.
Prerequisites: Admission to Executive MBA Program.

MGT 5570 MBA Capstone-Global Management Consultancy Credits: 3
An integrative global management consulting experience for a real world organization that applies analytical skills in the areas of finance, marketing, information systems, supply chain management, human resources, leadership, innovation, international, and strategy. Course deliverables include written and oral reports for the client organization. The course requires travel to visit client organization’s operations.
Prerequisites: MBA students must have completed all required core courses AND be in the last year of their program. MSA, MPA, MSF, MSERE, or MSGE program students may enroll with consent of instructor. Special application and selection process.

MGT 5571 Influence, Persuasion and Change Credits: 2
Presents ideas, strategies, and tools for leading change in complex organizations. This course challenges students to think about the execution of change strategies through assessment or organizational power dynamics and appropriate influence styles for achieving results. Emphasis is placed on analyzing these attributes and skills most critical for building influence, especially in change initiatives, and on defining an ethical approach to leading, influencing, and persuading others.
Prerequisites: Admission to the Executive MBA program.

MGT 5572 MBA Capstone-The Capstone Consulting Project Credits: 3
An integrative management consulting experience for a real world organization that requires application of conceptual models and analytical skills in multiple disciplines including areas such as finance, marketing, information systems, supply chain management, human resources, leadership innovation, international, and strategy. Course deliverables include written and oral reports for the client organization. The course requires interaction with senior managers in the client organization with anticipation of in-person or virtual visits to the firm.
Prerequisites: MBA students must have completed all required core courses AND be in the last year of their program. MSA, MPA, MSF, MSERE, or MSGE program students may enroll with consent of instructor.

MGT 5574 MBA Capstone-Leading and Managing Change Credits: 3
This course challenges students to apply concepts and models of leadership and strategy to timely, real-world issues and problems across business and functional areas in organizations. Using readings, class discussion, field-based leadership projects, and peer consulting, the course will emphasize the integrating perspective of the general manager and will explore cross-functional vision, decision-making, and execution for leadership effectiveness.
Prerequisites: MBA students must have completed all required core courses AND be in the last year of their program. MSA, MPA, MSF, MSERE, or MSGE program students may enroll with consent of instructor.

MGT 5585 Integrated Business Strategies (Capstone) Credits: 2
Integrates the disciplines of business to help the student develop a comprehensive understanding of business planning and strategy. Students will use cases and simulation to plan and test alternative business strategies in a competitive environment. The course examines the critical factors involved in strategic decision making.
Prerequisites: Admission to the MBA Program.

MGT 5587 Special Topics Credits: 3
The study of a contemporary management topic of interest.

MGT 5595 Internship Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community.

MGT 5597 Independent Study Credits: 1-6
Independent study and research in areas of special interest under individual faculty direction.

MGT 5899 Required Graduate Enrollment Credit: 1

Management Information Systems (MIS)

Courses
MIS 5503 Management Information Systems Credit: 1.5
A survey of topics concerning information technology management in the twenty-first century. The course examines information technologies as they influence the structure and processes of organizations, and economies, and as they influence the roles and techniques of management.
MIS 5507 Business Analytics and Statistics Credits: 3
Business Analytics is about the science and the art of using data for making well-informed business decisions. The course covers the techniques used for acquiring and preparing data, as well as various statistical methods and procedures for mining the data to identify and infer patterns, relationships, and trends. It discusses how these methods can be used by managers for descriptive, predictive, and prescriptive purposes. Upon the successful completion of this course, the student will have the knowledge and the hands-on skills to apply business analytics techniques to various business contexts.
Prerequisites: Students must be enrolled in a Bloch School graduate program.

MIS 5523 Technology and Analytics Credits: 2
Students study information technology in support of analytical processing in the modern organization. Databases, data warehouses, data mining, data integrity, decision support, and knowledge management applications will be covered.

MIS 5529 Decision Support Systems Credits: 3
Information systems to support decision makers in organizations. This course focuses on influences of cognitive biases and group think on decision makers. Identification of both potential uses of information technology to support decision makers and potential effects of information technology on the decision making processes, and may include a number of computer-oriented assignments.

MIS 5540 Information Technology as a Strategic Tool Credits: 2
This course examines the critical linkage between an organization's business, cultural, and information technology (IT) strategies. In organizations today, information technology has become a key component in accomplishing strategic and operational goals. The course provides concepts and a framework for understanding and enhancing the role IT can play in innovation, change, and continuous organizational learning.
Prerequisites: Admission to the Executive MBA program.

MIS 5552 Data Base Management Credits: 3
Data administration, including theory of relational databases and projects using relational data management packages. The course looks at data modeling and information engineering, entity-relationship modeling, database design, normalization, data dictionaries, distributed databases, database servers, data quality assurance, data integrity, SQL, and may include a number of computer-oriented assignments.

MIS 5554 Systems Analysis, Design And Engineering Credits: 3
This course introduces tools for documenting information system requirements and design and implementation methods; organization of software projects; system specifications, documentation and diagramming standards; programming languages and methodology; costs and schedule estimation, project management; program verification, and internal control issues.

MIS 5558 Management of Information Technology Credits: 3
Topics to be covered include procurement and management of computer systems, economics of hardware and software, software acquisition, RFQs, RFPs, contract terms and conditions, end-user computing, capacity planning, contribution of computing to business objectives, control, audit, and security of information technology; legal and ethical perspectives; and international issues.

MIS 5587 Special Topics Credits: 3
Special topics in management information systems.

MIS 5597 Independent Study Credits: 1-6
Independent study and research in areas of special interest under individual faculty direction.

MIS 5899 Required Graduate Enrollment Credit: 1

Marketing (MKT)

Courses

MKT 5501 Marketing Management Credit: 1.5
This course goes beyond the explanation of basic concepts of marketing. The goal is to present a strategic and integrative perspective of marketing in the contemporary digital, global and competitive marketing environment. The emphasis is on the interface between an organization's objectives, capabilities, resources and marketplace needs and opportunities. Examples of major topics to be covered are market-oriented philosophy and corresponding strategy, customer relationship management, branding and brand equity, services marketing, marketing ethics, defensive and offensive marketing strategies, product positioning, distribution and pricing strategies.

MKT 5504 Marketing Management Credits: 3
The course presents concepts of marketing, describes marketing strategy, and defines marketing tactics. Marketing law, fiduciary responsibilities, and marketing ethics for executives impacted by marketing success are identified. The goal is to present a strategic and integrative perspective of marketing in the contemporary digital, global and competitive marketing environment. The integration between an organization's objectives, capabilities, resources and marketplace needs and opportunities is described. Examples of major topics to be covered are marketing philosophies and their corresponding strategies, technology-driven customer relationship management, branding and brand equity, services marketing, product positioning, distribution and pricing strategies, and implementation of marketing tactics in.
Prerequisites: Students must be enrolled in a Bloch School graduate program.
MKT 5531 Contemporary Marketing Management Credits: 3
An advanced survey course that emphasizes the core marketing decision variables: product, price, place, and promotion. The emphasis is on the interface between an organization's objectives, capabilities, resources and marketplace needs and opportunities. The subject matter is applicable to firms that produce and/or services, and for-profit and non-profit organizations. Topics include market-oriented problem solving, consumer behavior, marketing ethics, competitive strategy, and product management in domestic and global environments.

MKT 5539 Digital (and Direct) Marketing Credits: 3
This course focuses on front-end and back-end marketing activities using digital as well as direct marketing tools. Major topics include developing an overall digital marketing strategy that includes inline and traditional media, online marketing, affiliate marketing, social media, web analytics and mobile marketing. The course also focuses on developing and maintaining relationships between the firm and customers and between the firm and other suppliers.
Prerequisites: MKT 5501 (or equivalent).

MKT 5543 Marketing Research and Decision Making Credits: 2
Market Research equips students to be intelligent users of market data for the purpose of decision making regarding the market mix and target marketing. The design of research projects, questionnaire design, sampling, data collection techniques, data analysis, and the presentation of results are covered.

MKT 5544 Marketing and Supply Chain Management Credits: 2
Students learn the processes involved in the marketing of goods and services, including the meaning and importance of marketing terminology, the marketing mix, the marketing concept, consumerism, market segmentation, market and marketing research, supply chain management and the impacts of different competitive structures on marketing decision making.

MKT 5555 International Marketing Credits: 3
This course focuses on marketing problems confronting international business managers and the ways they may be analyzed and resolved. The course content includes concepts and techniques useful in international marketing; effects of national differences on marketing practices; organization for international marketing; and strategy formulation for international markets.
Prerequisites: MKT 5501, MGT 5501 (or equivalent).

MKT 5560 Buyer Behavior Credits: 3
A review of behavioral science concepts applicable to an understanding of constituent decision making. Special emphasis is placed on applications of these concepts, by the student, to problems of offer planning, pricing, distribution and promotion.
Prerequisites: MKT 5501 (or equivalent).

MKT 5561 Promotional Strategies In Marketing Credits: 3
Emphasis will be placed on the organization's persuasive communications to customers and prospective customers within a framework of the system of distribution. The central focus concerns how marketing management allocates the promotional mix within the organization's total marketing program. Topics will include the following: 1) promotional mix, 2) campaign strategies, 3) campaign coordination and 4) follow-up control of promotional programs.
Prerequisites: MKT 5501 (or equivalent).

MKT 5562 Marketing Research Credits: 3
This course acquaints the student with the special problems of understanding and applying various measurement techniques to marketing problems. Specific topics to be investigated will depend upon the instructor and the students' areas of interest and specific competencies.
Prerequisites: DSOM 5505, MKT 5501 (or equivalents).

MKT 5565 Marketing Management Credits: 2
This course acquaints the student with the special problems of understanding and applying various measurement techniques to marketing problems. Specific topics to be investigated will depend upon the instructor and the students' areas of interest and specific competencies.
Prerequisites: Admission to Executive MBA Program.

MKT 5570 MBA Capstone-Developing and Maintaining a Customer Centric Organizational Culture Credits: 3
This course begins by providing students a historical view of developing and maintaining a customer centric organizational culture and the impact of same on employees, suppliers, strategic partners and customers. Students are provided practical guidelines and actions and are required to develop an organizational culture plan.
Prerequisites: MSA, MPA, MSF, MSERE, or MSGE program student.

MKT 5575 Advanced Marketing Strategy Credits: 3
This course focuses on advanced marketing skills and practical techniques for defining and meeting the needs of the chosen market. The emphasis is on key drivers of marketing effectiveness, including creating a market-oriented culture, customer-focused information systems, the relationship of various components of marketing, and the response to marketing variables. A variety of pedagogical approaches, including applied projects, may be employed.
Prerequisites: MKT 5501 (or equivalent).
MKT 5587 Special Topics Credits: 3
Special topics in marketing.

MKT 5595 Internship Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community.

MKT 5597 Independent Study Credits: 1-6
Independent study and research in areas of special interest under individual faculty direction.

MKT 5899 Required Graduate Enrollment Credit: 1

**Mathematics (MATH)**

**Courses**

MATH 5509 General Algebra I Credits: 3
Groups, rings, modules, homology, fields and Galois theory, valuations, matrices, and multilinear algebra. Continued in MATH 5519.

**Prerequisites:** MATH 410, MATH 420.

MATH 5510 Complex Variables I Credits: 3
The group of linear fractional transformations, complex integration, Cauchy's theorem, the maximum modulus theorem, analytic continuation, Riemann surfaces. Continued in MATH 5520.

**Prerequisites:** MATH 402, MATH 407.

MATH 5513 Real Variables I Credits: 3

**Prerequisites:** MATH 402, MATH 412.

MATH 5514 Mathematics for Secondary Teachers: Algebra and Analysis Credits: 3
Designed for secondary-school teachers. Examine high school mathematics from a higher point of view. Real and complex numbers, functions, algebraic structures of equations, integers and polynomials, number system structures; analyses of alternate approaches, extensions and applications of mathematical ideas, discussion of historical contexts and connections between ideas that may have been studied separately in different courses, relationships of ideas studied in secondary-school to those students may encounter in later study. When taken for graduate credit as Math 5514, an extra project is required.

**Prerequisites:** MATH 300.

MATH 5517 Matrix Theory I Credits: 3

**Prerequisites:** MATH 5517.

MATH 5519 General Algebra II Credits: 3
Continued in MATH 5519.

**Prerequisites:** MATH 5509.

MATH 5520 Complex Variables II Credits: 3
Continued in MATH 5520.

**Prerequisites:** MATH 5510.

MATH 5521 Differential Equations Credits: 3
This course offers an introduction to the qualitative theory and applications of ordinary differential equations (ODE). The presentation of the course will be a blend of fundamental theory and examples. The basic results will be proved rigorously and more advanced results will be only illustrated by examples that demonstrate when and how they may be applied.

**Prerequisites:** MATH 345, MATH 412, MATH 420.

MATH 5523 Real Variables II Credits: 3
Continued in MATH 5523.

**Prerequisites:** MATH 5521.

MATH 5524 Mathematics for Secondary Teachers: Geometry Credits: 3
Designed for secondary-school teachers. Examine high school mathematics from a higher point of view. Congruence, distance and similarity, trigonometry, area and volume, axiomatics and Euclidean geometry; analyses of alternate approaches, extensions, and applications of mathematical ideas, discussion of historical contexts and connections between ideas that may have been studied separately in different courses, relationships of ideas studied in secondary-school to those students may encounter in later study. When taken for graduate credit as Math 5524, an extra project is required.

**Prerequisites:** MATH 300, MATH 301.

MATH 5527 Matrix Theory II Credits: 3

**Prerequisites:** MATH 5517.
MATH 5532 Advanced Numerical Analysis I Credits: 3
Error Analysis, Solving Systems of Linear Equations, Solutions of Nonlinear Equations, the Least-Squares Problems, and Approximating functions. Continued in MATH 5542.
Prerequisites: MATH 402, MATH 420.

MATH 5542 Advanced Numerical Analysis II Credits: 3
Prerequisites: MATH 5532.

MATH 5545 Mathematical Methods In Science And Engineering Credits: 3
This course offers applied linear algebra and Fourier analysis which are indispensable tools in science and engineering. It is designed for beginning graduate students with moderate background in linear algebra and real analysis. Many of the results that are presented in the course will be proved rigorously from mathematical point of view.
Prerequisites: MATH 402, MATH 406, and MATH 420.

MATH 5557 Functional Analysis Credits: 3
Hilbert spaces, linear operators, compact operators, Banach spaces, the Hahn-Banach theorem, the open mapping and closed graph theorems, the principle of uniform boundedness, locally convex spaces.
Prerequisites: MATH 402 and MATH 420.

MATH 5575 Stochastic Calculus for Finance Credits: 3
This course presents the basic idea and theory of stochastic calculus with the focus on the applications to finance. Topics include Brownian motion, Ito integral, Ito formula, Black-Scholes equation and formula, risk-neutral pricing, connections with partial differential equations, exotic options, American derivative securities, and term structure models for interest rates.
Prerequisites: MATH 402 and STAT 436.

MATH 5590 Special Topics Credits: 1-3
Selected topics in various fields of mathematics. May be repeated for credit when the topic varies.

MATH 5699 Research And Thesis Credits: 1-16
Doctoral dissertation.

MATH 5899 Required Graduate Enrollment Credit: 1

**Mechanical Engineering (MEC-ENGR)**

**Courses**

MEC-ENGR 5500 Problems Credits: 1-6
Supervised investigation in mechanical engineering to be presented in the form of a report.

MEC-ENGR 5501 Advanced Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5501AC Advanced Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5501AD Advanced Topics in Mechanical Engineering Credits: 3
Advanced Topics in Mechanical Engineering

MEC-ENGR 5501CD Advanced Topics in Mechanical Engineering Credits: 3
Advanced Topics in Mechanical Engineering

MEC-ENGR 5501E Advanced Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5501EC Advanced Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5501EM Advanced Topics in Mechanical Engineering Credits: 3

MEC-ENGR 5501GS Advanced Topics in Mechanical Engineering Credits: 3
Advanced Topics in Mechanical Engineering
MEC-ENGR 5501H Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501HP Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501ID Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501IF Advanced Topics in Mechanical Engineering Credits: 3
MEC-ENGR 5501L Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501M Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501MB Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501MS Advanced Topics in Mechanical Engineering Credits: 3
MEC-ENGR 5501N Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501OE Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501P Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501PL Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501PL1 Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501PL2 Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501R Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501RE Advanced Topics in Mechanical Engineering Credits: 3
MEC-ENGR 5501SB Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501SM Advanced Topics in Mechanical Engineering Credits: 2
This course is for high school science teachers who have attended the ASM International Second Year Teachers Camp and have demonstrated the use of camp material in the classroom.
MEC-ENGR 5501TC Advanced Topics in Mechanical Engineering Credits: 2
This course is for high school science teachers who have attended the ASM International Teachers Camp and have demonstrated the use of camp material in the classroom.
MEC-ENGR 5501TS Advanced Topics In Mechanical Engineering Credits: 1-3
MEC-ENGR 5501VA Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5501Z Advanced Topics In Mechanical Engineering Credits: 3
MEC-ENGR 5505 Imaging Techniques in Materials Science Credits: 3
Introduction to imaging techniques, including x-rays, neutron beams, electron beams and acoustic energy, to study material properties and structure. **Prerequisites:** MEC-ENGR 324.

MEC-ENGR 5511 Introduction to Biomechanics Credits: 3
This course is to provide students with an introduction to the engineering principles of biomechanics.
MEC-ENGR 5512 Biomechanics Credits: 3
Introduction to musculoskeletal biomechanics including: computational biomechanics, movement simulation, motor control and musculoskeletal tissues. **Prerequisites:** MEC-ENGR 5511.

MEC-ENGR 5513 Experimental Biomechanics of Human Motion Credits: 3
The purpose of this course is to provide an opportunity for students to gain a hands-on, in-depth understanding of the experimental measurement and analysis techniques used to quantify the biomechanics of human motion. **Prerequisites:** MEC-ENGR 5511.

MEC-ENGR 5514 Material Science for Advanced Application Credits: 3
Study of the physical and mechanical metallurgy of alloy systems of interest in engineering applications. **Prerequisites:** MEC-ENGR 324.

MEC-ENGR 5525 Failure Analysis Credits: 3
Organize and perform a failure investigation. In addition, the course will cover the general procedures for a failure investigation and various failure mechanisms such as ductile fracture, brittle fracture, fatigue, wear, corrosion and elevated temperature. **Prerequisites:** MEC-ENGR 324, MEC-ENGR 380.

**Cross Listings:** MEC-ENGR 425.
MEC-ENGR 5526 Introduction to Manufacturing Management Credits: 3
The objective of this course is to expose the student to various manufacturing management tools and techniques. Focus is on both the technical tools used in manufacturing as well as on the management tools needed to implement change in the manufacturing environment. As part of this course, students will research a successful company and present an analysis of manufacturing tools and techniques used.
**Cross Listings:** MEC-ENGR 426.

MEC-ENGR 5533 Statistical Thermodynamics Credits: 3
Statistical methods of evaluating thermodynamic properties. Elements of quantum mechanics, statistical mechanics and kinetic theory applied to topics of engineering thermodynamics.
**Prerequisites:** MEC-ENGR 360, MEC-ENGR 399.

MEC-ENGR 5542 Introduction to Computational Fluid Dynamics and Heat Transfer Credits: 3
Introduction to the principles and development of the finite-difference approximations to the governing differential equations of viscous and inviscid fluid flow, as well as heat transfer. Introduction to discretization methods and the calculation of flow fields, convection, diffusion and conduction.
**Prerequisites:** MEC-ENGR 399, MEC-ENGR 441.

MEC-ENGR 5543 Industrial Refrigeration Credits: 3
Introduction to and analysis of the thermodynamic cycles and equipment used in Industrial Refrigeration. Applications of Industrial Refrigeration are also discussed.
**Prerequisites:** MEC-ENGR 299.

MEC-ENGR 5547 Contracts and Law for Engineers Credits: 3
This course covers a broad range of substantive legal topics giving the student a grounding in the legal implications of certain situations that they may encounter during their careers. The course includes coverage of basic contract law, environmental regulations and compliance, construction law, antitrust law, intellectual property law, civil procedure, employment law, business entities (corporate law) product liability and criminal law and procedure. The objective of the course is to provide students with a fundamental understanding of the wide range of federal and state laws governing behavior in our complicated and rule of law driven society.
**Cross Listings:** MEC-ENGR 447

MEC-ENGR 5549 Environmental Compliance, Auditing & Permitting Credits: 3
This course provides a high level overview of the most important statutes that have been enacted to protect the environment. The course covers regulation of hazardous waste, the Clean Air and Clean Water Acts, the Resource Conservation and Recovery Act, the All Appropriate Inquiry Rule and the law addressing sites contaminated with hazardous substances and the technology options employed to remediate those sites. In addition, the course provides coverage of environmental audits and emergency planning for extremely hazardous substances, the regulation of underground storage tanks, safe drinking water and the National Environmental Policy Act among other statutes.
**Prerequisites:** ANCHOR 201/CIV-ENGR 211, MEC-ENGR 285.
**Cross Listings:** MEC-ENGR 449.

MEC-ENGR 5554 Power Generation Systems Credits: 3
Fundamentals of the power industry in a format suitable for all engineering disciplines. Survey of electric power systems, including fossil and nuclear steam cycles, combustion turbines, combined cycles, and renewable such as solar and wind. Introduction to major machinery components, systems, controls, and an overview of fuels, emissions, and emission control technologies.
**Prerequisites:** MEC-ENGR 299.
**Cross Listings:** MEC-ENGR 454.

MEC-ENGR 5557 Mechatronics System Design Credits: 3
Theory and application of mechatronic systems through course instruction, laboratory activities, and student projects.
**Prerequisites:** MEC-ENGR 352 and MEC-ENGR 415.
**Cross Listings:** MEC-ENGR 457.

MEC-ENGR 5558 Intermediate Dynamics Credits: 3
Development of kinematics and dynamics of rigid bodies in three-dimensional space including: general theory of rotating coordinate frames, Eulers angles, Eulers equations of motion, angular momentum, work-energy principles, and Kane's method for creation and simulation of dynamic models.
**Prerequisites:** MEC-ENGR 285.

MEC-ENGR 5560 Electromechanical Conversion Credits: 3
This course describes the operation and control of electro-mechanical devices such as motors transformers to mechanical civil engineering students, including an introduction to programmable logic controllers and variable speed drives.
**Prerequisites:** MEC-ENGR 220 (or equivalent).
**Cross Listings:** MEC-ENGR 460.
MEC-ENGR 5563 Engineer in Society - Construction Law Credits: 3
This course introduces professional, ethical, and legal concepts of the professional practice of engineering, and the role of the consulting engineer, specifically in the A/E/C industry during the design, procurement, and construction processes. A conceptual framework is developed for understanding the industry standard agreements (AIA, EJCDC, ConCensus) and the various participants roles and duties in project execution. The engineer’s “professional standard of care” is examined and revisited throughout the semester, specifically what it means to be a “Professional Engineer”. Emphasis is placed on project and contract management and the applicable law. Skills are developed in finding online resources of law, legal, and practice advice relevant to the practice of engineering and the construction industry

MEC-ENGR 5565 Project Finance Credits: 3
This class introduces students to the financial concepts faced by engineers in the businesses in which they work and for the projects to which they are assigned. Throughout the course students are reminded of the impact of two key variables – money and time – on their work. While not attempting to turn good engineers into mediocre accountants, the course includes a strong emphasis on managerial accounting. Students will learn how to read and apply financial statements and how to use these same financial concepts in developing pro formas to evaluate and support major capital investments. The effect of time on the value of money, appropriate discount factors, and the internal rate of return will be explored in the class. Students will learn to combine these financial factors with electronic spreadsheets to evaluate business opportunities and practices. All students will be required to develop a comprehensive financial model to evaluate/justify a real world capital project.

MEC-ENGR 5567 Fuel Cells and Renewable Energy Systems Credits: 3
This course will provide an overview of the fundamental phenomena that govern the design and operation of fuel cells. The thermodynamics of fuel cell systems will be explored including operation of ideal fuel cells and the physical and chemical phenomena that lead to losses within the fuel cell. The course will provide the methods and techniques required to analyze the performance of low, medium, and high temperature fuel cells within an overall energy system. The fueling of fuel cells from renewable resources will also be discussed.

Prerequisites: MEC-ENGR 399.

Cross Listings: MEC-ENGR 467.

MEC-ENGR 5568 Introduction to Nuclear Engineering Credits: 3
This course provides an overview of nuclear engineering for non-nuclear engineers. The course deals primarily with nuclear reactors including topics dealing with nuclear and reactor physics, reactor kinetics and controls and radiation environment. The general reactor types are covered in some detail with other topics dealing with licensing, waste management, quality assurance, balance of plant systems (turbine island), and significant nuclear accidents are also covered. Recent design innovations including small modular reactors and fusion are discussed.

Prerequisites: MEC-ENGR 399.

Cross Listings: MEC-ENGR 468.

MEC-ENGR 5570 Experimental Design & Analysis Credits: 3
Presentation of concepts and methods of statistical analysis and the design of experiments. Concepts, techniques, interpretation, and use of results are stressed. Focus is on experimental strategy and objectives, and the application of the methods discussed, rather than the mechanics of derivation. Major sections include: a review of hypothesis testing and basic analysis of variance techniques; single factor experiments including 2k and 3k design, confounding, and Taguchi philosophy; nested and split plot designs; analysis of covariance and an introduction to response surface methods.

MEC-ENGR 5572 Advanced Statistics Credits: 3
The objective of this course is to review the concepts and methods of undergraduate first course in statistical analysis and extend the student’s understanding to cover topics typically covered in a second course in applied engineering statistics. Concepts, techniques, interpretation, and use of results are stressed. Focus is on the application of the methods discussed, rather than the mechanics of derivation.

Prerequisites: CIV-ENGR 319 (or equivalent).

MEC-ENGR 5574 Linear Programming for Engineering Optimization Credits: 3
This course will cover techniques and applications of engineering optimization using linear programming techniques. The main topics will be the simplex algorithm, sensitivity analysis, duality, network models, and integer programming. Main applications will include transportation, shipments, and utility planning. Stochastic models, game theory, non-linear programming, and heuristic optimization techniques will be briefly mentioned, but not explored in detail. At the conclusion of the course the student should be able to formulate and solve optimization problems in several areas of engineering.

Prerequisites: MEC-ENGR 306.

MEC-ENGR 5586 Applied Finite Element Analysis Credits: 3
The study of advanced simulation techniques for the solution to engineering problems. The use of Finite Element Method toward solving mechanical, structural, vibration and potential flow problems will be explored. The use of current commercial simulation tools will be used extensively.

Prerequisites: CIV-ENGR 275, MATH 5517, MEC-ENGR 130.

MEC-ENGR 5595 Microscale Heat Transfer Credits: 3
Review of existing models. Concept of thermal lagging and the second-law admissibility. Applications to low temperatures, thermal processing of thin-film devices; amorphous materials; advanced composites.

Prerequisites: MEC-ENGR 399.
MEC-ENGR 5599 Research Credits: 1-99
Independent investigation in field of mechanical engineering to be presented as a thesis.

MEC-ENGR 5601 Doctoral Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5601AC Doctoral Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5601C Doctoral Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5601F Doctoral Topics in Mechanical Engineering Credits: 3

MEC-ENGR 5601G Doctoral Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5601H Doctoral Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5601J Doctoral Topics in Mechanical Engineering Credits: 3

MEC-ENGR 5601R Doctoral Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5601SA Doctoral Topics In Mechanical Engineering Credits: 3

MEC-ENGR 5603 Directed Readings in Mechanical Engineering Credits: 1-3
Faculty supervised readings course.

**Prerequisites:** Graduate standing.

MEC-ENGR 5610 Seminar Credit: 1
Review recent investigations, projects of major importance in mechanical engineering.

MEC-ENGR 5616 Theory of Plasticity Credits: 3
Plastic yield conditions and stress-strain relations. Behavior of elastic-perfectly plastic members. Plain strain in plastic members.

**Prerequisites:** MEC-ENGR 5621, MEC-ENGR 5622.

MEC-ENGR 5618 Multibody System Dynamics Credits: 3
Fundamental principles of advanced rigid body dynamics with applications. Special mathematical techniques including Lagrangian and Hamiltonian methods.

**Prerequisites:** MEC-ENGR 285, MEC-ENGR 401ID

MEC-ENGR 5621 Continuum Mechanics Credits: 3
Introductory course in the mechanics of continuous media. Basic concepts of stress, strain, constitutive relationships; conservation laws are treated using Cartesian tensor notation. Examples from both solid and fluid mechanics investigated.

**Prerequisites:** CIV-ENGR 276, MATH 345, MEC-ENGR 351.

MEC-ENGR 5622 Theory of Elasticity Credits: 3

**Prerequisites:** MEC-ENGR 5621.

**Cross Listings:** CIV-ENGR 5622.

MEC-ENGR 5623 Theory Of Plates And Shells Credits: 3
Bending of plates with various loading and boundary conditions. Deformations, stresses in thin shells.

**Prerequisites:** MEC-ENGR 5621.

**Cross Listings:** CIV-ENGR 5623.

MEC-ENGR 5624 Theory of Elastic Stability Credits: 3
Buckling of columns, beams, rings, curved bars, thin plates, shells.

**Prerequisites:** MEC-ENGR 5621.

**Cross Listings:** CIV-ENGR 5624.

MEC-ENGR 5627 Dynamics of Machinery Credits: 3
Dynamic balancing or rotating and reciprocating components of turbo-machinery and internal combustion engines. Gas torque analysis, vibration stress analysis and equivalent systems. Numerical and graphical techniques.

**Prerequisites:** MEC-ENGR 484.

MEC-ENGR 5630 Boundary Layer Theory Credits: 3
Fluid motion at high Reynolds Number. Derivation of Navier-Stokes equations and boundary layer equations. Methods of solution. Transition to turbulent flow. Completely developed turbulent flow.

**Prerequisites:** MEC-ENGR 441.
MEC-ENGR 5636 Heat Transfer-Convection Credits: 3
Concepts including fluid dynamics, conservation laws, thermal boundary layer theory, forced convection in laminar and turbulent flows, and free convection will be developed and applied.
Prerequisites: MEC-ENGR 399

MEC-ENGR 5637 Heat Transfer-Radiation Credits: 3
Prerequisites: MEC-ENGR 399.

MEC-ENGR 5639 Introduction to Two Phase Flow Credits: 3
The fundamental principles of two-phase flow with applications to a variety of homogeneous mixture as well as separated liquid-liquid, gas-solid, liquid-solid, and gas-liquid flow problems, including steady or transient, laminar or turbulent conditions.
Prerequisites: MEC-ENGR 441.

MEC-ENGR 5660 Combustion Credits: 3
Study of advanced topics in flames and combustion. Detonation and deflagrations, supersonic combustion, air pollution.
Prerequisites: MEC-ENGR 441.

MEC-ENGR 5679 Dynamics of Structures Credits: 3
Study of the dynamic behavior of structures. Analysis of equivalent lumped parameter systems for the design of structures in a dynamic environment.
Prerequisites: CIV-ENGR 276 (or CIV-ENGR 421), MEC-ENGR 484 (or MATH 345, MEC-ENGR 285).

MEC-ENGR 5685 Advanced Vibration Analysis Credits: 3
Advanced topics in vibration theory and its application to Mechanical systems. Topics include vibration analysis of multi-degree of freedom, distributed and nonlinear systems, random vibration analysis, and vibration control.
Prerequisites: MEC-ENGR 484.

MEC-ENGR 5699 Research And Dissertation Credits: 1-9
Doctoral dissertation research.

Medical Bioinformatics (MEDB)

Courses
MEDB 5501 Applied Biostatistics I Credits: 3
Introduction to statistical concepts and analytic methods as applied to health science. Course includes lectures and hands on computer laboratory.
Prerequisites: graduate or professional students and an advanced math course (i.e. Calculus, statistics).

MEDB 5502 Applied Biostatistics II Credits: 3
The second in the Applied Biostatistics sequence and is intended for graduate, doctoral, and professional students in the biological, clinical and medical fields, and medical education. Statistical concepts, analysis methods, and research designs commonly used in these fields are included: diagnostic testing, hypothesis testing, power analysis, analysis of variance, analysis of covariance, multivariate analysis of variance, propensity scoring, simple and multiple regression, logistic regression, and survival analysis. Familiarity with basic statistics and the statistical techniques presented in Applied Biostatistics I is required. Statistical analyses involved in this course will be performed primarily using the SPSS statistical analysis package. The course will also cover the interpretation, presentation and the write up of analytical results and graphs.
Prerequisites: MEDB 5501 Applied Biostatistics I.

MEDB 5503 Mixed-Effects Models Credits: 3
This course will cover the computational basis of mixed-effects models and how to apply these models to analyze data. Students will learn how to graph, investigate, and model data that are not independent and identically distributed, and how to evaluate model fit.
Prerequisites: MEDB 5507, MEDB 5501, MEDB 5502, or equivalents and Linear Algebra is preferred.

MEDB 5505 Introduction to R Credit: 1
Provides a working familiarity with R. No advanced programming or statistical analytic skills, other than the ability to create and modify text files are needed. Basic methods for data import, data management, simple graphics, and basic statistical analysis are introduced. Provides student with a firm foundation to address these areas in advanced statistics classes or in the student's research efforts, including thesis/dissertation research. A basic understanding of statistical terminology and a working familiarity with computer-based data files (e.g., Excel) is necessary. A basic understanding of the concepts of computer coding is recommended.
MEDB 5506 Introduction to SPSS Credit: 1
Session provides a working familiarity with SPSS. Students are not expected to have advanced programming or statistical analysis skills, other than the ability to create and modify text files. Basic methods for data import, data management, simple graphics, and basic statistical analysis are introduced. This class will not cover advanced statistical methods, but will provide the student with a firm foundation to address these areas in advanced statistics classes or in the student’s research efforts, including thesis/dissertation research. A basic understanding of statistical terminology and a working familiarity with computer-based data files (e.g., Excel) is necessary.

MEDB 5507 Introduction to SAS Credit: 1
Course provides a working familiarity with SAS. Students are not expected to have advanced programming or statistical analysis skills, other than the ability to create and modify text files. Basic methods for data import, data management, simple graphics, and basic statistical analysis are introduced. This class will not cover advanced statistical methods, but will provide the student with a firm foundation to address these areas in advanced statistics classes or in the student’s research efforts, including thesis/dissertation research. A basic understanding of statistical terminology and a working familiarity with computer-based data files (e.g., Excel) is necessary.

MEDB 5510 Clinical Research Methodology Credits: 3
This course trains the student to contribute to research design, planning, and implementation, and to manage and interpret health-related data. This course will provide a broad overview of clinical research in terms of definition, methodology, conduct and applications. The course will explore basic elements of clinical research including the hierarchy of clinical research design and the conduct of clinical research. Application of clinical research knowledge to specific health-related issues will also be explored. Course topics include: conceiving the research question; study designs; questionnaire construction; research methodology; research ethics; human subjects requirements; the role of statistical analysis in clinical research; research proposal preparation; and research based on analysis of secondary data. Both classroom and online asynchronous sections offered.

MEDB 5511 Principles and Applications of Epidemiology Credits: 3
This course will provide an introductory overview of the principles of epidemiology and illustrate applications in specialized topic areas. Course lectures will introduce measures of effect used to study disease in human populations, epidemiological study designs, concepts of causal inference, and threats to study validity. Specialized lectures will demonstrate the application of these concepts in select health and disease conditions.

MEDB 5512 Clinical Trials Credits: 3
Clinical Trials explores the knowledge and skills required to conduct clinical trials, and implications of clinical trials on practice in medicine and allied health.

MEDB 5513 Overview of Health Services Research Credits: 3
Provides an overview of the U.S. health care and public health systems including issues about cost, access, and quality of health care. This course focuses on the role of research and information in the process of redesigning of health care delivery in the U.S. for the purpose of improving the value of health services.

Prerequisites: Completion of MEDB 5501 Biostatistics I and completion of MEDB 5510 Clinical Research Methodology or MEDB 5511 Principles and Applications of Epidemiology.

MEDB 5514 Human Genome Epidemiology Credits: 3
Designed for biological researchers and clinicians interested in studying common human diseases using state of the art genomics/genetics epidemiological approaches. Comprehensive introduction to concepts and methodologies of quantitative/statistical genetics, emerging technologies and analytical methods for genomic science, basic study design, utilization of software packages for analyses of genomic data, successful examples of using human genome epidemiology information to improve health, and ethical, legal and social issues in the design and conduct human genome epidemiology research.

MEDB 5520 Introduction to Medical Informatics Credits: 3
This course provides an overview of Biomedical and Health Informatics. It describes the use of data, information and knowledge in improving healthcare and biomedical research. This includes the use of technology and computers to store, retrieve, and process data. Topics include clinical decision making, standards and clinical terminology, natural language processing, imaging, electronic health records, patient monitoring, consumer health informatics, public health informatics, clinical decision support, bioinformatics, translational bioinformatics and clinical research informatics.

MEDB 5521 Clinical Bioinformatics Credits: 3
Clinical bioinformatics will provide the foundation required for effective communication between computational, biological and clinical experts. This class uses a series of exercises to enable participants to independently perform gene and protein-based bioinformatics queries and analyses. Throughout the course, core biological principles are explained, as are the foundational technology and computational topics. Students will become proficient with public bioinformatics resources. This course will prepare students to apply the techniques to their research or participation in interdisciplinary clinical terms.

MEDB 5525 Social Determinants of Health Credits: 3
This course will describe how social, economic and political factors affect health. It will examine strategies to address social determinants of health to reduce health inequities. Students will explore how specific social determinants like socioeconomic status, race ethnicity, and lifestyle influence health, use a "life course" approach to look at different stages of life and the effect of social determinants on specific populations.

MEDB 5530 Independent Study I Credits: 1-3
Focused readings and/or special research project in an area selected by the graduate student in consultation with the advisor.

MEDB 5531 Independent Study II Credits: 1-3
Focused readings and/or special research projects in an area selected by the graduate student in consultation with the advisor.
MEDB 5535 Quantitative Aspects of Epidemiologic Research Credits: 3
This course offers students advanced training in the analysis of epidemiological data. Topics include application of common measures of frequency and association, confounding, effect modification, bias, misclassification, and sensitivity analysis in epidemiologic and clinical data sources.
Prerequisites: MEDB 5501, MEDB 5502 and one of the following: MEDB 5510 or MEDB 5511

MEDB 5540 Multidisciplinary Graduate Seminar Credit: 1
This course will be a combination of discussion, presentations, and didactic presentations that will allow students and faculty to exchange information and explore current research across the disciplines that make up the bioinformatics degree program. The course is designed to help student develop critical skills for evaluating published research, designing research projects, and communicating research findings.

MEDB 5550 Health Outcomes Seminar Credit: 1
The course content is guided by a series of seminars presented by researchers who are actively engaged in health outcomes studies. It explores multiple topics that are unique relevant to clinical investigators. Faculty and peer discussion forums highlight key concepts and applications.

MEDB 5560 Medical Decision Making Credits: 3
This course will introduce the concept of medical decision making under uncertainty through an examination of disease probabilities and how they are altered by the characteristics of the diagnostic test being studies or used clinically. Decision trees will be introduced as a mechanism for communicating complex medical decisions and introductory level decision analysis will be presented. The measurement of patient values for alternative outcomes will be introduced as they pertain to direct payoff values as well as modifiers to cost payoffs.

MEDB 5561 Responsible Conduct of Research Credits: 3
An interdisciplinary course which covers principles and day-to-day practicalities of research ethics, information about regulatory requirements for conducting research including safety issues and the use of humans, animals and radioactive biohazardous materials; discuss current issues in the ethical aspects of research, such as scientists’ obligations with respect to public policy and advocacy.

MEDB 5589 Special Topics Credits: 1-3
An opportunity to explore in depth topics not included in usual course offerings. One or more topics will be announced in advance of registration.

MEDB 5591 Internship I Credits: 1-3
Opportunity to apply knowledge and skills in clinical, computational, or genomics research and gain insight into potential career options. Students develop appreciation for teamwork and commitment in professional environments.
Prerequisites: MEDB 5501, MEDB 5502, MEDB 5510, MEDB 5513.

MEDB 5592 Internship II Credits: 1-3
Opportunity to apply knowledge and skills in clinical, computational, or genomics research and gain insight into potential career options. Students develop appreciation for teamwork and commitment in professional environments. Internship II is applicable to students who have previously completed 3 hours of internship.
Prerequisites: MEDB 5501, MEDB 5502, MEDB 5510, MEDB 5513, MEDB 5591.

MEDB 5595 Capstone Experience Credits: 3
This course is designed for the non-thesis student to demonstrate that they have mastered key learning objectives expected of the graduating master’s student in the Clinical Research emphasis area. After completion of the core courses in the Masters of Bioinformatics curriculum, students will apply their learning to developing, implementing and presenting results from a project that demonstrates integration of the knowledge, abilities and values emphasized in the degree program.

MEDB 5599 Research and Thesis Credits: 1-6
Research for thesis.

MEDB 5699 Research and Dissertation Credits: 1-12
Research and dissertation preparation for IPhD degree students participating in Biomedical and Health Informatics primary and co-discipline.
Prerequisites: instructor approval

MEDB 5899 Required Graduate Enrollment Credit: 1

Medicine (MEDICINE)

Courses
MEDICINE 9110 Fundamentals of Medical Practice I Credits: 5
Introduces students to professional values, attitudes and skills required to practice medicine competently. Develops student competence in basic communication, relationship-building and patient centered interviewing skills. Provides self-awareness and personal growth strategies that facilitate the acquisition of professional behavior affecting honesty and integrity, compassion and altruism, as well as the management of stress. Explores non-biological factors influencing health and the appreciation of different value systems and life styles. Promotes ethical considerations relating to professional behavior and student conduct as a forerunner to professional behavior. Emphasizes the team approach in solving medical problems through direct small group activities as part of weekly onsite docent experiences. Integrates patient interviews and examinations with sciences fundamental to clinical medicine.
MEDICINE 9115 Medical Terminology Credit: 1
1 credit hour/twice weekly each semester. Methodical introduction to the language of medicine and its usage in modern clinical documentation. Introduces word elements in a logical, graduated sequence correlated with laboratory practice. Encourages skills in etymological analysis based on the word elements presented to facilitate interpretation of composite medical terms.

MEDICINE 9119 Learning Basic Medical Sciences Credit: 1
1 credit hour/1 hour per week. Provides students with an understanding of their own learning processes and those study strategies that promote maximum learning efficiency. Active participation in course increases achievement in both science and non-science courses, smooths transition to college-level work, and further develops reasoning and thinking skills that apply to medical school.

MEDICINE 9120 Fundamentals of Medical Practice II Credits: 5
Introduces students to professional values, attitudes and skills required to practice medicine competently. Develops student competence in basic communication, relationship-building and patient-centered interviewing skills. Provides self-awareness and personal growth strategies that facilitate the acquisition of professional behavior affecting honesty and integrity, compassion and altruism, as well as the management of stress. Explores non-biological factors influencing health and the appreciation of different value systems and life styles. Promotes ethical considerations relating to professional behavior and student conduct as a forerunner to professional behavior. Emphasizes the team approach in solving medical problems through direct small group activities as part of weekly onsite docent experiences. Integrates patient interviews and examinations with sciences fundamental to clinical medicine.

MEDICINE 9210 Fundamentals Of Medical Practice III Credits: 5
5 credit hours, 3 hours per week onsite, 2 hours lecture. Reinforces important concepts in diversity and professionalism. Continues the team approach in solving medical problems through direct small group activities as part of weekly onsite docent experience.

MEDICINE 9220 Fundamentals Of Medical Practice IV Credits: 5
5 credit hours, 3 hours per week onsite, 2 hours lecture. Reinforces important concepts in diversity and professionalism. Continues the team approach in solving medical problems through direct small group activities as part of weekly onsite docent experiences. Integrates patient interviews and examinations with sciences fundamental to clinical medicine, including biochemistry, anatomy, physiology, biochemistry and social sciences. Exposes students to a series of interviews with seasoned professionals who address issues of professionalism and career development.

MEDICINE 9221 Hospital Team Experience Credit: 1
1 credit hour/2-week assignment in hospital. Teaches students to make good observations, interact appropriately with patients, family, and hospital staff, assist with non-physician duties, and perform technical skills appropriate to assigned departments. Facilitates understanding of allied health care personnel roles in patient care, communication among health care professionals and its influence on the delivery of health care and patient outcomes, and the hospital process and structure of authority within the hospital.

MEDICINE 9308 Clinical Practice of Medicine I Credits: 3
Basic communication/clinical examination skills will be taught in the classroom with skills workshops. Students will learn to enhance their communication skills with patients and their families aligned with a systems-based approach to the physical examination. Students will also begin to practice complaint-based histories and a review of systems to prepare them for their Year 3 Continuing Care Clinic Clerkship and clinical decision-making. Students will practice communication and interpersonal skills in small groups and also have the opportunity to practice examination skills in workshops, with standardized patients, and linked to their experiences in the Continuing Care Clinic clerkship.

Prerequisites: Successful completion of HSF III, and enrollment in HSF IV.

MEDICINE 9309 Clinical Practice of Medicine II Credits: 5
Advanced communication/physical examination skills will be taught in the classroom with communication skills workshops. Students will learn/practice skills to communicate/examine patients aligned with a systems-based pathophysiology approach. Students will learn/practice a complaint-based HP exam by system aligned to their objectives in the Pathology II: Pathophysiology course. Students will learn/practice skills in clinical diagnosis and decision-making by system that includes instruction/practice on more advanced physical examination skills. Students will practice communication and interpersonal skills in small groups and also have the opportunity to practice examination skills in workshops, with standardized patients, and linked to their experiences in the Continuing Care Clinic.

Prerequisites: Successful completion of HSF III, and enrollment in HSF IV.

MEDICINE 9310 History of Medicine Credit: 1
In this course students will learn about the ways disease has altered history and that conceptions of disease undergo constant change. Topics covered include diseases and their relationships to other medical sciences, as well as the historical and scientific developments which led to our present understanding of diseases and medicine.

MEDICINE 9312 Pathology I: General Pathology, Genetics, and Immunology Credits: 10
Students will learn and be able to apply basic science education in the clinical practice of medicine. This application includes the areas of gross and microscopic anatomy, biochemistry, genetics, pathophysiology, and immunology. Students will develop a basic understanding of laboratory tests. They will develop competency in clinical diagnosis based on pathologic findings related to anatomic pathology, laboratory medicine and pathophysiology. Course materials will also cover prevention of disease and disability, global health issues, forensic medicine and pathology, age and gender-related issues in pathology and medicine, and appropriate utilization of Pathology and Laboratory Medicine Services.
MEDICINE 9313 Pathology II: Systems-Based Pathology and Pathophysiology Credits: 11
Students will learn and apply basic science education in the clinical practice of medicine through systems-based teaching about disease. This application includes the areas of biochemistry, genetics, pathophysiology, and medical microbiology. Students will expand their understanding of basic laboratory tests with a focus on interpretation and gain familiarity with more complex or specialized laboratory tests, enhancing their abilities in test selection and interpretation. They will also begin to approach a multi-system health problem in terms of its pathogenesis, the mechanisms of systemic interactions, and consequent/subsequent potential complications. Content areas emphasized include cardiovascular, lymphatic, hematologic, gastrointestinal, renal, hepatic, and genitourinary systems.

MEDICINE 9383 Continuing Care Clinic Credits: 5
Provides ambulatory and continuous care experience in general medicine clinics. The docent teams are assigned to a clinic in which students see and follow a panel of patients on a continuous basis for up to four years, where necessary, under the supervision of docents. Provides continuity of care from inpatient hospitalization to outpatient care, allowing longitudinal experience for the student and personalized care for the patients. Allows students to observe the natural progression of disease and experience the rewards and challenges of an ongoing doctor-patient relationship.

MEDICINE 9385 Introduction to Pharmacology Credits: 2
Consists of self-paced, independent learning, computer-based instruction. Introductory principles of pharmacology are covered that provide students with basic knowledge and skills necessary for upcoming didactic and clinical curriculum. Students become familiar with drug information resources, pharmaceutical calculations, and prescription writing skills, and learn basic mechanisms of drug action, preventive therapeutics and pharmacokinetic principles.

MEDICINE 9387 Extended Clinic I Credits: 5
MEDICINE 9390 Clinical Correlations Credits: 5
5 credit hours. Case-based discussions provided by clinicians that serve to reinforce basic science concepts provided during BMS 9296, BMS 9297, and BMS 9298.

MEDICINE 9401 Internal Medicine/Docent Instruction Yr 4 Credits: 10
Students spend this eight-week rotation on the medical wards at Truman Medical Center, each working as an integral member of a docent team that includes the docent, residents and attending health care staff. Year 3 and 5, and Year 4 and 6 students are paired together in a junior-senior partnership. Rounds, conference and consultations.

MEDICINE 9408 Pharmacology Credits: 10
Introduces the study of the interaction of drugs with biological systems. Provides the medical student with relevant basic pharmacology of the model drugs under clinical investigation and in use today. Includes extensive small group activities.

MEDICINE 9471 Family Medicine Credits: 5
Exposes students to the unique specialty that focuses on the family. Students experience the act of medicine as well as science, working with patients in the context of their family and community. Includes care of the child, the adolescent, pregnant women, young and middle aged adults, and the elderly. Addresses ambulatory medicine, prevention and health maintenance.

MEDICINE 9472 Behavioral Science in Medicine Credits: 5
Teaches the basic taxonomy, assessment methods and treatment interventions of chemical dependence and major psychiatric disorders. Serves as preparation for the psychiatry rotation. Examines relevant ethical issues commonly faced in current medical practice. Utilizes case studies and a problem-centered approach in addition to clinical experience including home health care visits, supervised interviewing, and time on an inpatient chemical dependency unit. Challenges the student to achieve an integrated theoretical understanding of various approaches in behavioral sciences as a background for meeting patients needs. Teaches communication skills including education of older patients.

MEDICINE 9482 Patient, Physician, Society I Credits: 2
Introduces students to a 7-week unit emphasizing medical decision making. Introduces students to a 6-week unit which focuses on public health. Activities include lecture, problem sets, small group projects.

MEDICINE 9483 Continuing Care Clinic Credits: 5
Provides ambulatory and continuous care experience in general medicine clinics. The docent teams are assigned to a clinic in which students see and follow a panel of patients on a continuous basis for up to four years, where necessary, under the supervision of docents. Provides continuity of care from inpatient hospitalization to outpatient care, allowing longitudinal experience for the student and personalized care for the patients. Allows students to observe the natural progression of disease and experience the rewards and challenges of an ongoing doctor-patient relationship.

MEDICINE 9483RC Year Four Repeat Clinic Credits: 5
Prerequisites: Year 3 clinic.

MEDICINE 9484 Patient, Physician, Society II Credits: 2
Introduces students to a unit emphasizing medical ethics and palliative care. Activities include lecture, small group sessions, and assigned readings.

MEDICINE 9485 Ambulatory Care Pharmacology Credits: 2
Consists of a self-paced, independent learning, computer-based instruction. Focuses on integration of patient-related data with basic science data. Students obtain skills in assessing patient risk or disease staging and selecting appropriate pharmacotherapy based on such information. The selected topics focus on outpatient pharmacotherapy of common disease states for which there are established treatment guidelines, such as hypertension, heart failure, diabetes mellitus, asthma, pain, and hyperlipidemia.
MEDICINE 9487 Extended Clinic II Credits: 5

MEDICINE 9501 Internal Medicine/Docent Instruction Yr 5 Credits: 10
Students spend this eight-week rotation on the medical wards at Truman Medical Center, each working as an integral member of a docent team that includes the docent, residents and attending health care staff. Year 3 and 5, Year 4 and 6 students are paired together in the junior-senior partnership. Rounds, conference and consultations.

MEDICINE 9503 Pediatrics Rotation Credits: 10
This eight-week rotation is designed to help students master skills necessary in assessing normal and abnormal development and behavioral variation in the newborn, infant and child in the outpatient clinical setting. History-taking and physical examination of infants, children and adolescents are emphasized.

MEDICINE 9503BR Peds Rotation Credits: 5

MEDICINE 9505 General Surgery Rotation Credits: 10
Introduces students to the field of general surgery. Emphasizes the indications, contraindications, types of operative management, and the mortality and morbidity of various operations. Involves the student in several different kinds of learning experiences, such as preoperative and postoperative care, work in the operating room, outpatient clinic visits, night call, student conferences and resident conferences. Covers skills in surgical scrub, putting on gown and gloves, knot tying, vena puncture, proctoscopy, and suturing of the skin. Students assist in performing skills such as insertion of CVP catheters, insertion of a chest tube, thoracentesis, paracentesis and Swan-Ganz catheters.

MEDICINE 9506 Obstetrics-Gynecology Rotation Credits: 10
Provides the student with an opportunity to gain basic competence in obstetrics and gynecology, including proficiency in the history and physical examination related to the obstetric and gynecologic patient. Emphasizes outpatient gynecology, family planning and techniques for early detection of gynecologic cancer. Provides basic information in reproductive physiology and endocrinology, infertility, gynecologic oncology, and the psychologic aspect of diseases of women. Covers concepts of prenatal care and fundamentals of normal labor and delivery, and pregnancy complications.

MEDICINE 9506BR Obset-Gynecol Rotation Credits: 5

MEDICINE 9514 Medicine, War & Bioethics Credits: 5
This course considers the continually evolving relationship between medicine, war, and the arts, from the slaughter of the American Civil War (1861-65) to today’s conflicts in Iraq. Our focus is on the extraordinary difficult medical and ethical decisions faced by physicians in times of war, and the ways in which those experiences are reflected in the arts. Topics include the effects of disease on armies, biological warfare, the development of ambulance and hospital services in the Civil War, battlefield medicine, the diagnosis and treatment of shellshock victims in WWI, chemical warfare, the pioneering of plastic surgery, triage techniques in WWII, nuclear warfare, and the personal experiences of physicians in the Vietnam and Iraq wars.

MEDICINE 9515 Medicine and Music Credits: 5
This course will explore ways in which music and medicine interact, including the following topics: therapeutic applications of music (music therapy), current research on how the brain processes music, the treatment of medical themes (including illness and disease, patients, physicians, and human experimentation) in musical works, and how certain composers’ medical conditions affected their creative output.

MEDICINE 9515A1 Independent Readings Month Credits: 5

MEDICINE 9516 Medicine and Film Credits: 5
Movies are narratives that record, instruct, motivate, entertain and transform. This course investigates the ways in which physicians, patients, and medical students have been portrayed in Hollywood films over the course of the twentieth and the early twenty-first centuries. Compassion, idealism, and heroism were common traits in early doctor movies but there was also a recurrent theme of the greedy callous doctor who valued research over patient welfare, and profits over ethics. We discuss how films reflected, changed, and molded perceptions of physicians and patients in the past, and examine what contemporary portrayals of the medical profession can tell us about the expectations and fears of patients today.

MEDICINE 9517 Medicine and Literature Credits: 5
The aim of this course is to engage students in the process of self-reflection about their roles as health care professionals through the lens of literature. Reading about the ways in which people interact with professionals, patients, and disease can enrich our understanding of cultural, economic, and social issues. Medical literature is a diverse field and it increases our awareness of the different reactions to medicine and illness. This course is intended to improve our empathy for patients and peers.

MEDICINE 9518 Medicine, Law and Bioethics Credits: 5
This course provides the basic doctrines and principles of the law that form the foundation for legally and ethically sound medical practice. It includes the comprehensive coverage of the history of legal medicine in the United States and the dynamics of law applied to the practice of medicine. Current developments in the U.S. health care delivery and in the field of bioethics are identified along with the impact on practice of medicine. Lecture, discussion, and writing about legal and ethical issues related to the practice of medicine prepares students in Year 5 and Year 6 to assume the legal and ethical responsibilities of the M.D. degree. This course fulfills the requirement for a Medical Humanities course in year 5 or year 6.

MEDICINE 9570 Family Medicine Preceptorship Credits: 5
Provides work experience with a rural Missouri physician. Helps students understand the responsibilities and importance of family physicians in the provision of health care. Provides continuing emphasis on the need for and importance of family practice.
MEDICINE 9571 Psychiatry Rotation Credits: 5
Gives each medical student a clinical assignment that involves responsibility for patient care under supervision on the adult inpatient service and experience in the clinic. Includes seminars in psychopathology, psychiatric syndromes, mechanisms of defense, psychopharmacology, drug and alcohol abuse and specific psychosocial assessment.

MEDICINE 9578 Medicine and Art Credits: 5
Lecture, discussion.

MEDICINE 9583 Continuing Care Clinic Credits: 5
Provides ambulatory and continuous care experience in general medicine clinics. The docent teams are assigned to a clinic in which students see and follow a panel of patients on a continuous basis for up to four years, where necessary, under the supervision of docents. Provides continuity of care from inpatient hospitalization to outpatient care, allowing longitudinal experience for the student and personalized care for the patients. Allows students to observe the natural progression of disease and experience the rewards and challenges of an ongoing doctor-patient relationship.

MEDICINE 9583RC Year Five Repeat Clinic Credits: 5
Monthlong course in which students repeat or complete outstanding requirements of Year 5 Continuing Care Clinic.

MEDICINE 9585 Prescribing for Special Populations Credits: 2
Consists of a self-paced, independent learning, computer-based instruction. Teaches principles of prescribing for special populations. Students learn to recognize special patients and to assess risks and benefits and individualize drug therapy in special patient situations. The course addresses concepts of pharmacology in five commonly-encountered special populations: pediatrics, elderly, patients with liver or kidney disease, and pregnant or breast-feeding patients.

MEDICINE 9587 Extended Clinic III Credits: 5

MEDICINE 9594 Medicine and Body Image Credits: 5
Lecture, discussion, writing about ethical issues related to death.

MEDICINE 9601 Internal Medicine/Docent Instruction Yr 6 Credits: 10
Students spend this eight-week rotation on the medical wards at Truman Medical Center, each working as an integral member of a docent team that includes the docent, residents and attending health care staff. Year 3 and 5, and Year 4 and 6 students are paired together in a junior-senior partnership. Rounds, conference and consultations.

MEDICINE 9678 Emergency Medicine Credits: 5
Based at Truman Medical Center Hospital Hill or Saint Luke’s Hospital of Kansas City, the major affiliated adult hospitals for the School of Medicine. Emphasizes principles, concepts and skills necessary for the initial evaluation and care of medical and surgical emergencies. Teaches management of simple lacerations, burns, contusions, sprains, and infections, and recognition of life threatening emergencies and initiation of emergency care in response.

MEDICINE 9683 Continuing Care Clinic Credits: 5
Provides ambulatory and continuous care experience in general medicine clinics. The docent teams are assigned to a clinic in which students see and follow a panel of patients on a continuous basis for up to four years, where necessary, under the supervision of docents. Provides continuity of care from inpatient hospitalization to outpatient care, allowing longitudinal experience for the student and personalized care for the patients. Allows students to observe the natural progression of disease and experience the rewards and challenges of an ongoing doctor-patient relationship.

MEDICINE 9685 Rational and Safe Drug Prescribing Credits: 2
Consists of self-paced, independent learning, computer-based instruction. Teaches principles of clinical pharmacology that will assist the student in responsibly prescribing medications. Students develop skills in making informed clinical decisions through studying topics such as literature evaluation, medication errors, adverse drug reactions, drug allergies, drug interactions, overdose management, alternative therapies, and therapeutic drug monitoring.

MEDICINE 9687 Extended Clinic IV Credits: 5

MEDICINE 9714A2 Academic General Year I Credit: 1

MEDICINE 9715A1 Independent Readings Month Credits: 5

MEDICINE 9716A1 Independent Study Month Credits: 5

MEDICINE 9732 Academic-Biomedical and Health Informatics Credits: 5

MEDICINE 9816C11 Family Practice Sub-Internship Credits: 5
Sub-internship in Family Medicine

MEDICINE 9818-C11 Special Topics - Community and Family Medicine Credits: 5
Special Topics - Community and Family Medicine

MEDICINE 9818-C21 Special Topics - Internal Medicine Credits: 5
Special Topics - Internal Medicine

MEDICINE 9818-C31 Special Topics - Neurology/Psychiatry Credits: 5
Special Topics - Neurology/Psychiatry
MEDICINE 9818-C41 Special Topics-OB/GYN REI SUB-I Credits: 5  
Special Topics-OB/GYN REI SUB-I  
MEDICINE 9818-C51 Special Topics - Pathology Credits: 5  
Special Topics - Pathology  
MEDICINE 9818-C61 Special Topics - Pediatrics Credits: 5  
Special Topics - Pediatrics  
MEDICINE 9818-C71 Special Topics - Radiology Credits: 5  
Special Topics - Radiology  
MEDICINE 9818-C81 Special Topics - Surgery Credits: 5  
Special Topics - Surgery  
MEDICINE 9818-C91 Special Topics - Miscellaneous Credits: 5  
Special Topics - Miscellaneous  
MEDICINE 9818-C92 Special Topics - Miscellaneous Credits: 5  
Special Topics - Miscellaneous  
MEDICINE 9842-C21 Internal Medicine Sub-Internship Credits: 5  
MEDICINE 9850-C31 Neurology Sub-Internship Credits: 5  
MEDICINE 9870-C41 Obstetrics and Gynecology - Sub-Internship Credits: 5  
MEDICINE 9898-C61 Internal Medicine/Pediatrics-Sub-Internship Credits: 5  
**Prerequisites:** Successful completion of the core Internal Medicine and Pediatrics clerkships.  
MEDICINE 9899-C61 Internal Medicine Pediatrics Clinic Credits: 5  
MEDICINE 9921-C61 Pediatrics Sub-Internship Credits: 5  
MEDICINE 9922-C61 Neonatal Intensive Care Sub-Internship Credits: 5  
MEDICINE 9923-C61 Pediatrics-Rehabilitation Credits: 5  
MEDICINE 9924-C61 Pediatrics-Dermatology Credits: 5  
MEDICINE 9925-C61 Pediatrics-Ophthalmology Credits: 5  
MEDICINE 9926-C61 Pediatrics-Genetics Credits: 5  
MEDICINE 9927-C61 Pediatrics-Neurology Credits: 5  
MEDICINE 9928-C61 Pediatrics-Child and Adolescent Psychiatry Credits: 5  
MEDICINE 9929-C61 Pediatrics-Plastic Surgery Credits: 5  
MEDICINE 9930-C61 Pediatrics-Orthopedic Surgery Credits: 5  
MEDICINE 9940-C61 Pediatrics-Allergy and Immunology Credits: 5  
MEDICINE 9945-C81 Anesthesiology-Sub-Internship Credits: 5  
MEDICINE 9972-C81 Surgery-General Sub-Internship Credits: 5  
MEDICINE 9973-C81 Surgery Orthopedics Sub-Internship Credits: 5  
MEDICINE 9974-C81 Surgery Neurological Sub-Internship Credits: 5  
MEDICINE 9975-C81 Surgery-Trauma Credits: 5  
MEDICINE 9976-C81 Surgery - Oral and Maxillofacial Surgery Credits: 5  
MEDICINE 9977-C81 Surgical Oncology Credits: 5  
Elective in Surgical Oncology.  
MEDICINE 9985 Miscellaneous - Medical Clinical Nutrition Credits: 5  
Build upon basic (biochemistry/physiology) and clinical science knowledge and skills in order to be able to perform nutrition assessments in children/adults, counsel patients and families on nutrition, order medical nutrition therapy, work with multidisciplinary teams, and appropriately refer for specialized nutrition/feeding services. The elective utilizes didactic instruction, case studies, team projects, individual assignments, and outside reading combined with clinical/community experiences to facilitate student acquisition of knowledge/skills. Gain an appreciation of nutritional therapy from both the clinician and patient/family perspective. Didactic sessions, case studies, and clinical experiences are designed to augment students' outside reading of assigned and suggested references.

**Nursing (NURSE)**
Courses

NURSE 5503A Comparative Weight Loss 1 Credit: 1
This course explores the bio/psycho/social aspects of weight gain and obesity and compares common weight loss methods according to risk, benefits, and long and short term implications. Correlations between lifestyle issues such as diet, sleep, stress, and exercise will be explored. Specific topics that will be addressed include risks of overweight/obesity; common psychological issues for the overweight/obese; societal perceptions and barriers for overweight/obese individuals.

NURSE 5503B Comparative Weight Loss 2 Credit: 1
This course explores the bio/psycho/social aspects of weight gain and obesity and compares common weight loss methods according to risk, benefits, and long and short term implications. Correlations between lifestyle issues such as diet, sleep, stress, and exercise will be explored. Common medically recommended diets and diet programs will be compared on the basis of their efficacy/risk; exercise requirements for weight loss, and weight maintenance.
Prerequisites: Nurse 5503A.

NURSE 5503C Comparative Weight Loss 3 Credit: 1
This course explores the bio/psycho/social aspects of weight gain and obesity and compares common weight loss methods according to risk, benefits, and long and short term implications. Compare pharmacologic weight loss options and their efficacy/risk; non-prescription medications/nutraceuticals for weight loss and their efficacy/risk; and bariatric surgeries and efficacy/risk.
Prerequisites: Nurse 5503A.

NURSE 5508 Advanced Growth and Development Credit: 1
This course is designed to provide students with advanced comprehensive knowledge regarding the physical growth and psychosocial development from birth to 21 years of age within the context of the child's family and community. Analysis and interpretation of growth and development patterns will be examined as they relate to primary health care of children, birth to 21 years of age aiding in the determination of the health status.

NURSE 5509 Technical Foundations of Advanced Practice Credit: 1
This course will provide students with the advanced informatics skills necessary to develop an evidence-based reflective practice. Self-paced progressive modules will allow students to use advanced health care technologies to develop and apply informatics skills so that they can manage and communicate advanced clinical information and knowledge.

NURSE 5515NE Role of the Nurse Educator Credits: 2-3
This course will explore the role of the nurse educator within the academic, acute care, and outpatient settings. Emphasis will be on the development, evaluation, differences and implementation of the nurse educator in the functional roles. Students are introduced to the NLN Core Competencies of Nurse Educators to evaluate their own practice. Ethical and legal issues related to practice as a nurse educator are discussed.

NURSE 5516 Curriculum Development in Nursing Credits: 3
This course prepares the nurse educator to develop, review, and evaluate nursing curricula. Emphasis will be placed on theoretical foundations, principles of program evaluation, and issues in curriculum design.
Prerequisites: NURSE 5515NE.

NURSE 5517 Teaching Strategies in Nursing Credits: 2
This course examines principles and techniques in teaching nursing. Techniques concerning classroom management, writing objectives and implementing active teaching strategies are explored. Emphasis is placed on respecting the diverse learning needs of students in the educational environment.
Prerequisites: NURSE 5515NE or permission of instructor.

Co-requisites: NURSE 5515NE.

NURSE 5526 Health Promotion Across the Lifespan Credits: 3
This course is designed to provide students with a strong knowledge base related to concepts of health promotion and health protection for clients across the life span. Clients are conceptualized as individuals, families and populations. An application of various developmental theories for the child, adult, older adult and family will provide the basis to individualize health-care needs for various age and family groups. Core concepts for the course include: theories of health and health promotion and protection, reasoned action, health belief model, epidemiology, disease and injury prevention, health education, growth and development, nutrition, and family systems theory.
Prerequisites: NURSE 5550 (or co-requisite).

NURSE 5527 Cultural Diversity & Values Credits: 3
This course explores how each individual’s life context (social, political, historical, and economic) and culture construct their individual’s values, beliefs and behaviors. Applying multi-disciplinary concepts and theory, the course expands students’ basic knowledge of cultural diversity, approaches to culture and cultural competency, values and ethics, theories of moral development, cultural assessment skills, and ethical decision-making models for clinical practice. Ethical dilemmas created by differing cultural values and the role of health professionals in leading ethical decision-making are explored. Core concepts for the course include: cultural awareness, cultural knowledge, cultural skill, cultural encounter, values clarification, and ethical analysis.
NURSE 5528 Healthcare Policy & Advocacy Credits: 3
This course is designed to focus on the integral relationship between health care policy and advocacy. Content will include principles and processes related to U.S. health policy and politics in relation to the overall system and issues of cost, quality and access; interrelationships between policy, political trends, and quality of care and access at the point of service; elimination of health care disparities, ethical and obligatory values related to the role of the health care professional.

NURSE 5529 Ethics in Advanced Practice & Research Credits: 3
Advanced nursing practice, ethics, and research are intricately connected. This course is designed to explore the content necessary to apply ethical principles to complex issues encountered in advanced nursing practice. Essential ethical principles include assuring the common good through the continual presence of respect for human dignity, autonomy, beneficence, and distributive justice, as those apply to the integration of advanced practice and research. Graduate prepared nurses are responsible for impacting individual care, the care of populations, and environmental health, therefore advocacy for social justice and ethical health care policy are also discussed.

NURSE 5531 Graduate Pharmacology Specialty Credits: 2
This course builds on principles of pharmacology learned in Pharmacotherapeutics for Advanced Practice Nursing. This course focuses on principles and practices necessary for safe prescribing and medication management of a specialty population (e.g., pediatrics, acute care, mental health).

Prerequisites: NURSE 5548, NURSE 5549, NURSE 5550.
Co-Requisites: NURSE 5532.

NURSE 5532 Pediatric Acute Care I Credits: 3
This is the first of two courses in which the management of complex acute, critical, and chronically ill patients with urgent and emergent conditions is explored. The focus is on alterations in pathophysiology, advanced assessment, diagnosis, and collaborative management of infants, children and adolescents with selected episodic/chronic health problems in acute/critical care.

Prerequisites: NURSE 5548, NURSE 5549, NURSE 5544 NURSE 5547.
Co-requisites: Advanced Clinical Practice Practicum I; Graduate Pharmacology Specialty.

NURSE 5533 Pediatric Acute Care II Credits: 3
This is the second of two courses in which the management of complex acute, critical, and chronically ill patients with urgent and emergent conditions is explored. The focus is on alterations in pathophysiology, advanced assessment, diagnosis, and collaborative management of infants, children and adolescents with selected episodic/chronic health problems in acute/critical care.

Prerequisites: Pediatric Acute Care I and Advanced Clinical Practice Practicum I.
Co-requisites: Advanced Clinical Practice Practicum II.

NURSE 5534 Advanced Practice Clinical Practicum I (Pediatric Acute Care) Credits: 4
This practicum course focuses on the clinical management of the pathological alterations presented in the Pediatric Acute Care I course. The course is designed to provide clinical experience in the development and application of the roles of the pediatric acute care nurse practitioner. The clinical setting will be used for application and evaluation of pathophysiologic and psychosocial concepts in implementing and evaluating care in the clinical settings.

Prerequisites: NURSE 5544, NURSE 5547, NURSE 5548, NURSE 5549.
Co-requisites: NURSE 5532, NURSE 5531.

NURSE 5535 Advanced Practice Clinical Practicum II (Pediatric Acute Care) Credits: 4
The emphasis of this course is on the integration of theory, assessment, and advanced therapeutics in high acuity patient care. The student will gain the necessary management skills to provide specialized patient centered care across the entire pediatric age spectrum from complex chronic illness to physiologic deterioration and life threatening instability, including palliative and end of life care, while incorporating the family as a full partner in decision making.

Prerequisites: NURSE 5532, NURSE 5534.
Co-requisites: NURSE 5533.

NURSE 5544 Advanced Health Assessment Skills Credits: 2
This course provides a systematic approach to collection and documentation of advanced health/physical assessment, including the comprehensive history, physical, and psychological assessment of signs and symptoms, pathophysiological changes, psychosocial and cultural variations of the patient. The assessment should be conducted within the context of the family and community, incorporating cultural and developmental variations, and the needs of the patient.

Prerequisites: Undergraduate Health Assessment Course.
NURSE 5546 Foundations of Family Psychiatric Nursing Advanced Practice Credits: 3
This foundational course focuses on factors impacting mental health and the development of psychiatric disorders. The scope of practice and roles of the Psychiatric Mental Health Nurse Practitioner will be introduced. Both pharmacological and nonpharmacological therapeutic modalities will be explored. Comprehensive psychiatric evaluation skills will be developed. Attention will be given to the development of therapeutic relationships, assessment considerations across the lifespan, crisis evaluation and different types of diagnostic tools and approaches. Diagnostic reasoning skills will be applied to mental illness and students will begin to integrate assessment finding into diagnoses in the Diagnostic and Statistical Manual of Mental Disorders.
Prerequisites: NURSE 5547M.

Co-requisites: NURSE 5547M.

NURSE 5547 Diagnostic Reasoning/Advanced Assessment Credits: 3
This course emphasizes utilization of advanced health/physical assessment skills, interpretation of diagnostic testing and lab values, validation, documentation and analysis of findings through diagnostic reasoning to develop and process differential diagnosis.
Prerequisites: NURSE 5544.

NURSE 5547A Diagnostic Reasoning/Advanced Assessment Credits: 3
This course emphasizes utilization of advanced health/physical assessment skills, interpretation of diagnostic testing and lab values, validation, documentation and analysis of findings through diagnostic reasoning to develop and process differential diagnosis. The course consists of two hours of didactic/discussion and one hour of clinical/lab credit (45 clock hours).
Prerequisites: NURSE 5544.

NURSE 5547C Diagnostic Reasoning/Advanced Assessment Credits: 3
This course emphasizes utilization of advanced health/physical assessment skills, interpretation of diagnostic testing and lab values, validation, documentation and analysis of findings through diagnostic reasoning to develop and process differential diagnosis. The course consists of two hours of didactic/discussion and one hour of clinical/lab credit (45 clock hours).
Prerequisites: NURSE 5544.

NURSE 5547F Diagnostic Reasoning/Advanced Assessment Credits: 3
This course emphasizes utilization of advanced health/physical assessment skills, interpretation of diagnostic testing and lab values, validation, documentation and analysis of findings through diagnostic reasoning to develop and process differential diagnosis. The course consists of two hours of didactic/discussion and one hour of clinical/lab credit (45 clock hours).
Prerequisites: NURSE 5544.

NURSE 5547N Advanced Assessment of the Neonate Credits: 3
This course is designed to provide a systematic approach to advanced assessment of physiological, psychological, socio-cultural, developmental and spiritual assessment of the fetus, the mother during the prenatal period, and the neonate. This course builds on basic health assessment skills and emphasizes advanced assessment skills, diagnostic test interpretation, validation, documentation and analysis of perinatal, genetic and embryological factors impacting neonatal health and development.
Prerequisites: Admission into the MSN NNP program.

NURSE 5547NE Health Assessment & Clinical Reasoning for Nurse Educators Credits: 4
This course is designed to provide a systematic approach to teaching physiological, psychological, sociocultural, developmental and spiritual assessment. The course builds on basic health assessment skills and emphasizes: comprehensive assessment skills, interpretation of laboratory results, validation of findings, documentation and analysis of assessment findings; and teaching strategies – teaching methodologies, clinical application, and student evaluation.
Prerequisites: NURSE 401, NURSE 5548.

NURSE 5547PM Diagnostic Reasoning/Advanced Assessment Credits: 2
2 credit hours (1 didactic; 1 lab for a minimum of 45 contact/clock hours). This course is designed to provide a systematic approach to the advanced assessment of physiological, psychological, socio-cultural, developmental and spiritual assessment of individuals. The post-MSN student will build on previous advanced assessment skills and content with emphasis on adding advanced physical assessment skills, lab work interpretation, validation, documentation and analysis of assessment findings appropriate to their desired role area. Students will meet the same outcome standards of the track in which they are currently enrolled.
Prerequisites: Free-standing Health Assessment Course.
NURSE 5547W Diagnostic Reasoning/Advanced Assessment Credits: 3
This course emphasizes utilization of advanced health/physical assessment skills, interpretation of diagnostic testing and lab values, validation, documentation and analysis of findings through diagnostic reasoning to develop and process differential diagnosis. The course consists of two hours of didactic/discussion and one hour of clinical/lab credit (45 clock hours).
Prerequisites: NURSE 5544.

NURSE 5548 Advanced Pathophysiology Across the Lifespan Credits: 3
Advanced pathophysiology is the study of the alterations of normal physiological functioning in cellular, tissue, organ and organ systems. These alterations form the basis for understanding a variety of pathophysiological conditions and the manifestations and impact of abnormal physiological functioning on clients across the life-span. Advanced pathophysiology deals with both generalized processes and major organ system dysfunctions. This course consists of three hours of lecture/discussion per week and individual self study.

NURSE 5548N Physiology/Pathophysiology Of The Neonate Credits: 2
Concepts of embryology, neonatal physiology and pathophysiology are used to provide an in-depth study of normal functioning and alteration of normal physiological functioning in cellular, tissue, organ, and organ systems. Alterations form the basis for understanding a variety of pathophysiological conditions and the manifestations and impact of abnormal physiological functioning on neonates. Both generalized processes and major system dysfunctions are addressed.
Prerequisites: Admission to the Neonatal Nurse Practitioner Track or consent of the instructor. NURSE 5548 Advanced Pathophysiology Across the Lifespan.

NURSE 5549 Pharmacology Across the Life Span for Advanced Nursing Practice Credits: 3
This is a course in clinical pharmacotherapeutics that builds on prior knowledge of drug classification, actions, interactions and adverse drug reactions. The major focus of the course is the pharmacotherapeutic prescribing of medications for primary health care management across the life span by advanced practice nurses. The Missouri laws for advanced practice nurse prescriptive authority will be addressed. This course consists of three hours of lecture/discussion/in-class clinical module work per week.
Prerequisites: NURSE 5548, NURSE 5549R.

NURSE 5549N Advanced Assessment of the Neonate Credits: 3
This course is designed to provide a systematic approach to advanced assessment of physiological, psychological, socio-cultural, developmental and spiritual assessment of the fetus, the mother during the prenatal period, and the neonate. This course builds on basic health assessment skills and emphasizes advanced assessment skills, diagnostic test interpretation, validation, documentation and analysis of perinatal, genetic and embryological factors impacting neonatal health and development.
Prerequisites: Admission into the MSN NNP program.

NURSE 5549R Pharmacokinetics & Pharmacodynamics: Application for Graduate-Prepared Nurses Credit: 1
This course builds on prior knowledge of anatomy, physiology, chemistry, microbiology, pathophysiology and pharmacology. Drug classes are reviewed in preparation for advanced clinical judgment. The principles for decision-making about drug selection, use and monitoring are explored. General principles of pharmacokinetics and pharmacodynamics are discussed. Pertinent patient education concerning select pharmacotherapeutics agents is reviewed.
Prerequisites: Admission to UMKC School of Nursing.

NURSE 5550 Theoretical Foundations in Nursing Credits: 3
This course focuses on critical analysis of theory and the utilization of various levels of nursing and related theories as a base for nursing at the graduate level. It further examines the inter-relationship of theory, research and practice in the development of a scientific body of nursing knowledge. The student will analyze methods by which knowledge is gained and validated. Students will synthesize several different theories from which to form the basis of their practice. Relationships of theory, practice and research will be discussed.
Prerequisites: Completion of BSN.

NURSE 5551A Pharmacology for Women's Health: Lifestyle and Preventive Healthcare Credits: 2
This course in clinical pharmacology builds on current knowledge of drug classification, actions, interactions and adverse drug reactions. The focus is the use of medications by advanced practice providers in the management of preventive healthcare and lifestyle choices in women's health. Emphasis will be placed on the evidence based pharmacological management of women with medical conditions such as cardiovascular conditions, autoimmune disorders, diabetes, gastrointestinal conditions, lower urinary tract disorders, drugs that promote mental health, dermatological conditions, and an overview of chemotherapeutics. This four-week course consists of online discussion, case studies and quizzes.
Prerequisites: NURSE 5549.

NURSE 5551B Pharmacology for Women's Health: Common Medical Conditions Credits: 2
This course in clinical pharmacology builds on current knowledge of drug classification, actions, interactions, and adverse drug reactions. The focus is the use of medications by advanced practice providers in the management of common medical conditions in women's health. Emphasis will be placed on the evidence based pharmacological management of women with medical conditions such as cardiovascular conditions, autoimmune disorders, diabetes, gastrointestinal conditions, lower urinary tract disorders, drugs that promote mental health, dermatological conditions, and an overview of chemotherapeutics. This four-week course consists of online discussion, case studies and quizzes.
Prerequisites: NURSE 5549.
NURSE 5551C Pharmacology for Women's Health: Gyn/Preg/Lact/Postpart Credits: 2
This course in clinical pharmacology builds on current knowledge of drug classification, actions, interactions, and diverse drug reactions. The focus is the use of medications by advanced practice providers in the management of specific gynecologic and obstetrical conditions associated with the female reproductive organs such as contraception, sexually transmitted infections, pelvic and menstrual disorders, vaginal and vulvar disorders, sexual dysfunction, and postmenopause. Discussions will also include the pharmacologic management of a variety of conditions that can occur during pregnancy, lactation, and postpartum. This four-week course consists of online discussion, case studies, and quizzes.
Prerequisites: NURSE 5549.

NURSE 5555 Nursing Research Credits: 3
This course is designed to prepare graduate nursing students to utilize research findings in order to provide high quality health care and improve nursing practice. This knowledge includes fundamentals of research methods, procedures for the evaluation of research and the application of research findings to clinical practice and organizational decision making.
Prerequisites: NURSE 5550, a graduate level statistics course.

NURSE 5556 Program Evaluation Credits: 3
This survey course is designed to introduce students to the philosophy, theory, and methodology of program evaluation. The end point of this course is that graduate students will be able to design, implement, and evaluate research, education and/or social programs within the context of their primary focus of study (i.e. clinical or role).

NURSE 5557 Qualitative Methods in Nursing Research Credits: 3
This course is designed to provide the student with the skills necessary to the understanding and conduct of qualitative research. Various methods, including ethnographic, phenomenologic, historic, grounded theory and aesthetic inquiry are presented and discussed. Emphasis is placed upon the appropriateness of each method for different research problems. This course consists of three hours of lecture/discussion per week.
Prerequisites: NURSE 5550, NURSE 5555.

NURSE 5558 Research Design Credits: 3
This course is designed to provide the student with experience in the development of a research proposal. Research skills acquired in previous courses will be synthesized to produce the components of a proposal.
Prerequisites: NURSE 5555.

NURSE 5559 Evaluation Methods in Nursing Credits: 2
This course examines principles of assessment and evaluation in nursing education. Techniques concerning formative and summative evaluation, test writing, clinical evaluation, and test item analysis will be explored. Emphasis is placed on respecting the diverse learning needs of the students in the educational environment.
Prerequisites: N5517 Teaching Methods in Nursing or permission of instructor.

NURSE 5564A Primary Care of Adults I Credits: 5
This course is designed to prepare nurse practitioner students to manage common health problems of adults. The focus is on developmentally appropriate preventive health care and management of common acute/episodic illnesses. Students will integrate role competencies, professional standards, and legal requirements essential to the NP role. Core content includes differential diagnosis, therapeutic management, adherence, anticipatory guidance, patient/family education, legal and professional issues, standards of practice, and advanced practice role competencies.
Prerequisites: NURSE 5526, NURSE 5548, NURSE 5550 and NURSE 5547A.
Co-requisites: NURSE 5549, NURSE 5555.

NURSE 5564C Primary Care of Children I Credits: 5
This course is designed to prepare nurse practitioner students to manage common pediatric health problems. The focus is on evidence-based developmentally appropriate preventive health care and management of common acute/episodic illnesses. Students will integrate role competencies, professional standards, and legal requirements essential to the NP role. Core content includes differential diagnosis, therapeutic management, adherence, anticipatory guidance, patient/family education, legal and professional issues, standards of practice, and advanced practice role competencies. Clinical practice and clinical seminar comprise the clinical experience.
Prerequisites: NURSE 5526, NURSE 5547C, NURSE 5548, NURSE 5550.
Co-requisites: NURSE 5549, NURSE 5555.

NURSE 5564F Primary Care of Families I Credits: 5
This course is designed to prepare nurse practitioner students to manage common health problems across the life span. The focus is on developmentally appropriate preventive health care and management of common acute/episodic illnesses. Students will integrate role competencies, professional standards, and legal requirements essential to the NP role. Core content includes differential diagnosis, therapeutic management, adherence, anticipatory guidance, patient/family education, legal and professional issues, standards of practice, and advanced practice role competencies.
Prerequisites: NURSE 5526, NURSE 5547F, NURSE 5548, NURSE 5550.
Co-requisites: NURSE 5549, NURSE 5555.
NURSE 5564M Family Psychiatric Nursing Advanced Practice I Credits: 5
This course is designed to prepare students to manage psychiatric illness in individuals. Emphasis will be given to psychiatric disorders commonly encountered such as thought disorders, mood disorders, anxiety disorders, personality disorders and substance abuse. Special attention will be given to illnesses occurring in childhood and older age. Focus will be on strengthening mental health diagnostic skills and management of psychiatric illness in individuals. Students will learn to identify and treat short term mental health issues, chronic disorders and acute exacerbations. Psychotropic medication management skills will be developed. Students will begin their clinical hours during this course with a minimum of 165 in total. Patients seen in clinical settings will be across the lifespan.
Prerequisites: NURSE 5526, NURSE 5546, NURSE 5547M, NURSE 5548, NURSE 5550.

Co-requisites: NURSE 5549.

NURSE 5564N Neonatal Nursing I Credits: 3
This course integrates the physiologic, pharmacologic, and assessment skills and principles in determining appropriate care of the ill neonate. This course covers case management of respiratory, cardiovascular and neurologic disorders. Current research and evidenced-based practices are used as the course framework. The effects of critical conditions on the growth and development of the neonate, including subsequent chronic health problems as well as the short and long term consequences to the child’s family are emphasized. The use of specific interventions and diagnostic procedures are demonstrated and applied in laboratory/clinical settings.
Prerequisites: NURSE 5549N.

Co-requisites: NURSE 5566N.

NURSE 5564NE Clinical for Nurse Educators Credits: 5
This clinical course provides students an opportunity to develop advanced knowledge and clinical skills in an acute care clinical setting. Clinical practice hours will be spent in a variety of settings providing the students the opportunity to provide clinical education and advanced patient care in a specialty population. The students demonstrate their clinical development and clinical reasoning skills by evaluating the process of nursing care (assessment, intervention/management, evaluation) from an evidenced-based perspective.
Prerequisites: All required courses except NURSE 5572 and NURSE 5598.

NURSE 5564W Primary Health Care of Women Credits: 5
This course is designed to prepare the woman’s health nurse practitioner student to manage the primary health care of women. The course will focus on the etiology, symptomatology, diagnosis and management of gynecologic and non-gynecologic primary health care problems throughout the lifespan. Emphasis will be placed on caring for women within a holistic, collaborative framework and recognizing how the changing roles of women in today’s society can affect their lives and their health status. Concepts, theories and evidence-based practice related to health promotion and maintenance, and illness prevention are addressed.
Prerequisites: NURSE 5526, NURSE 5547W, NURSE 5548, and NURSE 5550; NURSE 5549 and NURSE 5555 (pre or co-req).

NURSE 5566A Primary Care of Adult-Gerontology II Credits: 5
This course is designed to prepare adult-gerontology nurse practitioner (NP) students in the care and management of adults with chronic health problems. The focus is on the differentiation and therapeutic management of chronic health problems encountered in various health care settings. The course enables students to develop a research and theory based practice for disease state management of health care for adults. Core concepts: theories, grief and loss, chronicity and pain; and advanced nursing skills.
Prerequisites: NURSE 5549, NURSE 5564A.

NURSE 5566C Chronic Child Health Care (Clinical II) Credits: 5
This course is designed to apply knowledge and skill to advanced evidence-based nursing care of children experiencing complex/chronic health problems. The organizing framework is case management of chronic health states. Students will apply several theoretical models to acute and chronic conditions of children at different developmental stages representing various socioeconomic and cultural groups, in primary or specialized care settings. Core concepts are stress, coping, adaptation, pain management, grief, loss, nutritional support, ethical decision-making, and symptom management.
Prerequisites: NURSE 5549 and NURSE 5564C.

NURSE 5566F Primary Care of Families II Credits: 5
This course is designed to prepare family nurse practitioner (NP) students in the care and management of families with chronic health problems. The focus is on the differentiation and therapeutic management of chronic health problems encountered in various health care settings. The course enables students to develop a research and theory based practice for disease state management of health care for families. Core concepts: theories, grief and loss, chronicity and pain; and advanced nursing skills.
Prerequisites: NURSE 5549, NURSE 5564F.
NURSE 5566M Family Psychiatric Nursing Advanced Practice II Credits: 5
In this course, management of mental health problems will expand beyond the individual to include families, groups and the greater community. This course will emphasize development of psychotherapy skills by the advanced practice nurse. Theoretical foundations and intervention approaches for individuals, group and family therapies will be explored. Unique or modified approaches for pediatric and older adult populations will be covered. Students will be exposed to the common psychotherapy modalities and will identify which approaches they will adopt and utilize in psychotherapy clinical experiences. Clinical management will also expand from outpatient settings to include crisis evaluation and inpatient care.
Prerequisites: NURSE 5549, NURSE 5546, NURSE 5564M.

NURSE 5566N Neonatal Nursing II Credits: 3
This course integrates physiologic, pharmacologic, and assessment skills and principles determining appropriate care of the ill neonate. This course covers case management of gastrointestinal, renal, endocrine, hematologic, orthopedic, ophthalmologic, dermatologic and immune disorders. Current research and evidenced-based practices are used as the course framework. The effects of critical conditions on the growth and development of the neonate, including subsequent chronic health problems as well as the short and long term consequences of the child's family are emphasized. The use of specific interventions and diagnostic procedures are demonstrated and applied in laboratory/clinical settings.
Prerequisites: NURSE 5549.

NURSE 5566W Care of the Childbearing Woman Credits: 5
This course is designed to prepare the woman's health nurse practitioner students in the care and management of the childbearing woman. The focus of the course is on the normal adaptation and pathologic alterations throughout the childbearing period. Emphasis is placed on management of women and families from preconception through the puerperium. Concepts, theories and evidence-based research related to the biopsychosocial and cultural aspects of childbearing are addressed. Core concepts include adaptation, stress and coping, grief and loss, pain and symptoms management.
Prerequisites: NURSE 5549.

NURSE 5572 Advanced Nursing Practice: Synthesis Practicum Credits: 5
This course is a concentrated, experiential, supervised clinical opportunity to function in an advanced practice nursing role. The focus of this intensive clinical practicum is on the synthesis and application of previous theory and clinical courses under the guidance of a preceptor. Students will be expected to apply advanced clinical decision-making skills and evidence-based practice guidelines to the assessment, management, and evaluation of complex healthcare problems. Core concepts include advanced nursing practice, functional role responsibilities, ethical, legal and health policy issues, and activities with the emphasis on their relationship to patient outcomes. The patient systems for this experience include individuals and families within the context of community.
Prerequisites: All required courses except NURSE 5598, NURSE 5599, and electives.

NURSE 5572II Preceptorship II Credits: 5
This course provides opportunities to apply knowledge and skills from advanced nursing role, theory, research and neonatal clinical courses to the advanced therapeutic management of high-risk neonates. This is the second of two preceptorship courses which builds upon acquired clinical skills of NURSE 5572N and can be taken concurrently or in consecutive semesters. Emphasis is placed on therapeutic measures within a conceptual framework or model applying findings from research relevant to comprehensive care of neonates. The client system will be the neonate and family.
Co-requisites: NURSE 5572N.

NURSE 5572M Advanced Nursing Practice: Synthesis Practicum Credits: 5
This course is a concentrated, experiential, supervised clinical opportunity to function in a psychiatric advanced practice nursing role. The focus of this intensive clinical practicum is on the synthesis and application of previous theory and clinical courses under the guidance of a preceptor. Students will be expected to apply advanced clinical decision making skills and evidence-based practice guidelines to the assessment, management, and evaluation of complex healthcare problems. Core concepts include advanced nursing practice, functional role responsibilities, ethical, legal and health policy issues, consultation/collaboration and activities with the emphasis on their relationship to patient outcomes. A minimum of 330 clinical hours is required. Patients seen in clinical settings will be across the lifespan.
Prerequisites: All required courses except NURSE 5598.

NURSE 5572NE Synthesis Practicum for Nurse Educators Credits: 3
3 Credit Hours (3 clinical for a minimum of 180 contact/clock hours). This course provides the student a concentrated, experiential opportunity to function in the role as nurse educator. Core concepts include functional role responsibilities, teaching strategies and theory utilization. Emphasis is placed on professional role development and the concept of life-long learning.
Prerequisites: All required courses except NURSE 5598.

NURSE 5572NI Preceptorship I Credits: 5
This course provides opportunities to apply knowledge and skills from advanced nursing role, theory, research and neonatal clinical courses to the advanced therapeutic management of high-risk neonates. This is the first of two preceptorship courses. The other course, NURSE 5572II, can be taken concurrently or in consecutive semesters. Emphasis is placed on therapeutic measures within a conceptual framework or model applying findings from research relevant to comprehensive care of neonates. The client system will be the neonate and family.
Prerequisites: NURSE 5564N, NURSE 5566N.

NURSE 5581A Simulation in Healthcare-State of the Science, Ethical, and Theoretical Foundations Credit: 1
This course provides an introduction to principles, ethics, and theory guiding simulation education in healthcare. Emphasis is on analysis of the evidenced-based research related to simulation, and regulatory processes through interprofessional discussions.
NURSE 5581B Simulation in Healthcare-Development and Curricular Integration Credit: 1
This course introduces students to simulation center design, scenario development, and curriculum integration. Through interprofessional collaboration, students will examine the process of developing simulations and developing realistic, measurable objectives.

NURSE 5581C Simulation in Healthcare-Debriefing and Evaluation Methods Credit: 1
This course prepares students to evaluate learning in the simulation environment and facilitate debriefing. Evaluation methods based on simulation learning domains and objectives are explored.

NURSE 5583A Accreditation in Nursing Education –Procedural Overview and Accreditation Credit: 1
The course provides a foundational understanding of the accreditation process for the Accreditation Commission for Education in Nursing (ACEN) and Commission on Collegiate Nursing Education (CCNE). Procedural overview includes discussion on the accreditation self-study process, standards, on-site evaluation, and the accreditation decision-making process and accreditation. Emphasis will be placed on guidelines for assessment of student learning outcomes and preparation for continuing review.

NURSE 5583B Accreditation in Nursing Education –Accreditation Commission for Education in Nursing (ACEN) Credit: 1
This course builds upon foundational principles of accreditation by exploring the process as related to the Accreditation Commission for Education in Nursing (ACEN). Emphasis is placed on how to implement the accreditation process to successfully complete a self-study report.

Prerequisites: N5583A or permission of instructor.

NURSE 5583C Accreditation in Nursing Education –Commission on Collegiate Nursing Education (CCNE) Credit: 1
This course builds upon foundational principles of accreditation by exploring the process as related to the Commission on Collegiate Nursing Education (CCNE). Emphasis is placed on how to implement the accreditation process to successfully complete a self-study report.

Prerequisites: N5583A or permission of instructor.

NURSE 5587 Research Utilization in Nursing Credits: 3
This course will prepare nurses to implement a research utilization model to validate practice. The theoretical basis for research utilization and practical instances of its application in nursing will be examined. Opportunities will be provided to develop a research utilization plan to address a clinical area of practice.

Prerequisites: NURSE 5550, NURSE 5555.

NURSE 5590 Directed Scholarly Activity Credits: 1-2
This course provides individualized experiences to prepare the student for their comprehensive examination.

Prerequisites: Permission of the instructor.

Co-requisites: Completion of core course requirements.

NURSE 5597A Independent Study in Nursing/Patient Care-Elective Credits: 1-6
Guided study of selected topics and/or areas in nursing and/or patient care.

Prerequisites: NURSE 5550.

NURSE 5597AHA Independent Study in Nursing Credits: 1-6

NURSE 5597AS Independent Study in Nursing Credits: 1-6
Independent Study in Nursing

NURSE 5597B Independent Study in Nursing/Patient Care-Equivalent Credits: 1-6
Guided study of selected topics and/or areas in nursing and/or patient care.

Prerequisites: NURSE 5550.

NURSE 5597EPR Independent Study in Nursing Credits: 1-6

NURSE 5597HA Independent Study in Nursing Credits: 1-6

NURSE 5597LS Independent Study in Nursing Credits: 1-6

NURSE 5597P1 Independent Study in Nursing Credits: 1-6

NURSE 5597P2 Independent Study in Nursing Credits: 1-6

NURSE 5597PCF Independent Study in Nursing Credits: 1-6

NURSE 5597PF Independent Study in Nursing Credits: 1-6

NURSE 5597PN Independent Study in Nursing Credits: 1-6

NURSE 5597ST Independent Study in Nursing Credits: 1-6

NURSE 5597WLA Indep Study in Nursing Credits: 1-6
Indep Study in Nursing

NURSE 5597WLB Indep Study in Nursing Credits: 1-6
Indep Study in Nursing
NURSE 5597WLC Indep Study in Nursing Credits: 1-6  
Indep Study in Nursing
NURSE 5598 Directed Research Credits: 1-6  
Individual research project for students to utilize beginning research skills in designing and conducting independent studies under the direction of the faculty.  
Prerequisites: NURSE 5550, NURSE 5555.
NURSE 5599 Research Thesis Credits: 1-9  
Individual study under the direction of a member of the faculty leading to the preparation and oral defense of a thesis.  
Prerequisites: NURSE 5550, NURSE 5555.
NURSE 5601 Clinical Institute I Credit: 1  
1 credit hour (1 didactic) This course provides an introduction to the knowledge and skills essential to becoming a graduate student. Students utilize theory, evidence based practice/research, and clinical expertise to become expert practitioners in their population foci. Content includes relevant UMKC policies and procedures, technology utilization to conduct library literature searches, access to course content on electronic platforms, and planning for success in graduate school. The literature review search progresses to application of the content, through written and verbal communication. Techniques building on critical thinking skills to start clinical diagnostic reasoning skills are introduced along with graduate school expectations and outcomes.  
Prerequisites: Admission to the MSN or DNP programs.
NURSE 5602 Healthcare Systems & Leadership Credits: 3  
This course focuses on the DNP as leader within the complex health care industry. Utilizing information technology, an in-depth study of the socio-political, economic, cultural and historical background of the American health care system the system of health professions will form the foundation for exploration of leadership needs the DNP leadership role.  
Prerequisites: Admission to the DNP program.
NURSE 5603 Research Institute I Credits: 2  
This course will provide a hands-on introduction to the process of becoming a research scientist. Content will include the responsible conduct of research, its core element, the emerging guideline, relevant UMKC policies and procedures, and the impact to the Researcher in his/her day-to-day activities. This course also includes literature reviews, scholarly writing, technology in the Research process, developing a program of scholarship and effective time management.  
Prerequisites: Admission to the PhD program at the School of Nursing and Health Studies.
NURSE 5604 Research Institute II Credits: 2  
This course will provide interactive sessions to develop skills necessary for the synthesis of research findings, the identification of funding sources and the initiation of the grant writing process. Also included will be the opportunity to develop and present research findings in multiple venues.  
Prerequisites: NURSE 5603, Completion of 6 credit hours of PhD coursework.
NURSE 5606 Healthcare Policy & Advocacy Credits: 3  
This course is designed to focus on the integral relationship between health care policy and advocacy as a graduate prepared nurse. The student will employ best evidence, technology, political statistics, and engagement and leadership in public and organizational policy and advocacy processes to effect positive change in relation to particular and complex problems. Content will include principles and processes related to U.S. health policy and politics in relation to the overall system and issues of cost, quality and access; interrelationships between policy, political trends, and quality of care and access at the point of service; elimination of health care disparities, ethical and obligatory values related to the role of the graduate prepared nurse.  
Prerequisites: Admission to Graduate Program.
NURSE 5607NA Health Care Policy and Leadership for the Nurse Anesthetist Credits: 2  
This course provides an in-depth study of the health care policy process, emphasizing ways that Doctor of Nursing Practice (DNP) prepared Certified Registered Nurse Anesthetists (CRNAs) can incorporate health policy advocacy into their practice. The content prepares DNP CRNAs to be effective, innovative leaders in nurse anesthesia and health care. Students will participate in a leadership experience in one of four areas: education, research, administration, or politics.  
Prerequisites: Active status in both UMKC SoNHS BSN-DNP NA program and the TMC School of Nurse Anesthesia.
NURSE 5608 Theory Development I Credits: 3  
The philosophical underpinnings of nursing and the theoretical development of nursing science will be explored in this course. The discipline of nursing and the relationship between nursing theory, research, and practice will be discussed. Students will analyze nursing and non-nursing theories for research or clinical questions. Students will identify a theoretical framework to guide their research or evidence-based practice project.  
Prerequisites: Twelve credit hours of graduate level course work, including NURSE 5550 and NURSE 5555, or their equivalents.
NURSE 5609 Clinical Institute II Credit: 1
This course will provide interactive sessions to develop skills necessary to develop evidenced based practice projects. Literature search strategies, focused on the synthesis and integration of evidence (literature) that supports the problem, intervention, and outcome measurement will be presented. Institutional Review Board (IRB) and essential ethical components will be discussed. Opportunities for project dissemination including posters, presentations and manuscripts will be explored.
Prerequisites: NURSE 5556 or NURSE 5619NAB.

NURSE 5610 Theory Development in Nursing II Credits: 3
Nursing and non-nursing models, frameworks and theories will be analyzed and critically evaluated. Philosophical tenants will be debated. Students will identify the range of applicable theories for their area of research. Appropriate application of theories to independent and dependent variables, mediators and moderators, cofactors, correlates and outcomes will be explored. Students will develop concepts, hypotheses, and research goals that utilize an identified theory for nursing research.
Prerequisites: NURSE 5608 or permission of instructor.

NURSE 5611 Healthcare Economics & Quality Credits: 3
This course focuses on the principles of, and complex relationship between, cost and efficiency and effectiveness and health care quality outcomes. Economic perspectives and needs from industry, organizations, providers and consumers will all be examined. Throughout the course, issues regarding the inextricable link between cost and quality within the complex healthcare environment will be examined and addressed, with emphasis on DNP nurse intervention and leadership.
Prerequisites: Admission to the DNP program.

NURSE 5612 Statistics I Credits: 3
This graduate statistics online course is designed for students in the graduate programs. The course provides a comprehensive understanding of: describing data, logic of sampling, and test statistics; hypothesis testing, type 1 and type 2 errors; power; one-way ANOVA (analysis of variance); planned comparison, post-hoc tests and trend analysis; factorial ANOVA; repeated measures designs and mixed randomized repeated designs; simple and multiple regression; and ANCOVA (analysis of co-variance).
Prerequisites: Upper division undergraduate statistics course.

NURSE 5613 Application of Evidence-based Practice I Credits: 3
This course is designed to provide an analytic and systematic approach to evaluate evidence-based research and guidelines used in clinical practice. The course builds on methods of evidence-based practice (EBP), theoretical foundations, ethical principles, research design, and statistical analyses. The student will develop an evidence-based approach to address a clinical question and to construct an integrative literature review. In the course, an EPB project is designed to provide quality health care. The project plan incorporates the integrative literature review, scientific methods, outcome measurement, and data analysis.
Prerequisites: NURSE 5555, NURSE 5608.

NURSE 5613A Application of Evidence-based Practice I Credits: 2
This course is designed to provide an analytic and systematic approach to evaluate evidence-based research and guidelines used in clinical practice. The course builds on methods of evidence-based practice, theoretical foundations, ethical principles, research design, and statistical analyses. The student will develop an evidence-based approach to address a clinical question and to construct an integrative literature review.
Prerequisites: NURSE 5555, NURSE 5608

NURSE 5613B Application of Evidence-based Practice I Credit: 1
In the course, an evidence-based practice project is designed to provide quality health care. The project plan incorporates the integrative literature review, scientific methods, outcome measurement, and data analysis.
Prerequisites: NURSE 5613A

NURSE 5614 Health Policy & Ethics Credits: 2
This course examines health policy and ethics as they intersect with other public policies. Legal, financial, and ethical issues associated with policy development and evaluation are critically examined.
Prerequisites: Admission into the Ph.D. in Nursing Program.

NURSE 5615NA Chemistry and Physics for the Nurse Anesthetist Credits: 3
This course is designed to provide the nurse anesthesia student a foundational knowledge needed for the provision of anesthesia. This course will review elements of general, organic, and biochemistry pertinent to understanding structure, characteristics and basic mechanisms of metabolic pathways and pharmacology routinely administered during the anesthetic period. Pertinent laws and principles of physics will be presented. The student will be prepared to apply pertinent laws and principles of physics to the provision of anesthesia services.
Prerequisites: Acceptance into School of Nurse Anesthesia Program.
NURSE 5619NA Anesthesia Crisis Resource Management Credit: 1
This course is designed for the graduate nurse anesthesia student to optimize their expert clinical judgement during low-frequency, high-acuity anesthesia crisis events. The history, importance, and theory of patient safety during dynamic anesthetic situations will be discussed, as well as specific skills and practices that improve performance. The goal of this course is for the student to develop knowledge and skills of Anesthesia Crisis Resource Management (ACRM) prior to graduation.
Prerequisites: Nurse 5619NA3.

NURSE 5617 Application of Evidence-based Practice II Credits: 3
This course is designed to provide an analytic and systematic approach to incorporation of evidence-based research into clinical practice. The course builds on the underpinnings of evidence-based practice (EBP) including theoretical foundations, ethical and cultural principles, quality, policy and economic considerations, design and methods, and statistical analysis of outcomes. In this course, the student will use the integrated literature review and principles of human subject protection to develop an evidence-based practice project proposal and submit the proposal for approval. Support for the EBP improvement plan includes technology and information systems.
Prerequisites: NURSE 5613 or NURSE 5613B

NURSE 5617A Application of Evidence-based Practice II Credit: 1
This course is designed to provide an analytic and systematic approach to incorporation of evidence-based research into clinical practice. The course builds on the underpinnings of evidence-based practice (EBP) including theoretical foundations, ethical and cultural principles, quality, policy and economic considerations, design and methods, and statistical analysis of outcomes. In this course, the student will use the integrated literature review and principles of human subject protection to develop an EBP project proposal. Prerequisites: NURSE 5613 or NURSE 5613B

NURSE 5617B Application of Evidence-based Practice II Credits: 2
In this course, the student will use the integrated literature review and principles of human subject protection to develop an evidence-based practice (EBP) project proposal and submit the proposal for approval. Support for the EBP improvement plan includes technology and information systems.
Prerequisites: NURSE 5617A

NURSE 5619NA1 Principles of Nurse Anesthesia Practice I Credits: 2
This course introduces the nurse anesthesia student to concepts necessary to plan and execute safe individualized anesthetics. Content includes assessment of co-morbid conditions and patient populations in anesthesia, appropriate plans of care, anesthetic techniques, prevention of complications, fluid management, monitoring and utilization of anesthesia equipment. Fundamental concepts and techniques essential to clinical anesthesia practice focus on theoretical, practical and professional considerations involved in the administration of general anesthesia, conscious sedation and regional anesthesia, inside and outside the operating room. Content includes evidence based student led conferences, anesthetic literature, morbidity and mortality, inter-disciplinary and intra-disciplinary conferences and use of informatics systems.
Prerequisites: NURSE 5619NA.

NURSE 5619NA2 Principles of Nurse Anesthesia II Credits: 3
This course is designed to provide the nurse anesthesia student a broad knowledge base in multiple concepts, topics and techniques. This course builds on concepts learned in Principles I and delineates techniques of anesthesia management that are considered more situation specific with specialized diagnostic and anesthetic procedures. Primarily focused on patients and existing co-morbidities, the course intensively covers more advanced concepts and principles of anesthetic management including neurosurgical, thoracic, vascular and trauma procedures. Content includes evidence based student led morbidity and mortality conferences, inter-disciplinary and intra-disciplinary conferences, use of informatics systems and simulation based learning.
Prerequisites: NURSE 5619NA1.

NURSE 5619NA3 Principles of Nurse Anesthesia Practice III Credits: 3
The course covers advanced concepts and principles of anesthetic management with emphasis on cardio-thoracic anesthesia and anesthetic emergencies. The course builds on Principles I and II and focuses more on critical thinking, skill development, specific procedures utilized in anesthetic practice including advanced airway techniques and placement of invasive monitoring modalities as well as crisis management in anesthesia. Content includes evidence based student led conferences, utilization of anesthetic literature, morbidity and mortality, inter-disciplinary and intra-disciplinary conferences, use of medical informatics systems and simulation based learning.
Prerequisites: NURSE 5619NA2.

NURSE 5619NAB Basic Principles of Nurse Anesthesia Practice Credits: 2
This course is designed to build on topics introduced in orientation and provides the student with the knowledge needed to begin the delivery of anesthesia. This course encompasses a variety of topics including pharmacology and equipment utilized in the provision of anesthesia, airway anatomy and management, commonly administered fluid, colloids, non-colloids, and blood products and an overview of anesthesia and trauma. Lecture topics will be assimilated into high fidelity simulation scenarios to prepare the student for clinical residency courses.
Prerequisites: NURSE 5619NAO.
NURSE 5619NAO Orientation to Nurse Anesthesia Practice Credits: 2
This course is designed to give the first year nurse anesthesia student a broad field orientation to anesthesia topics. The course will provide a foundation of knowledge for the safe practice of anesthesia. This will be an initial introduction to the art and science of anesthesia. The course content will include: patient assessment of cardiac status for anesthesia, anesthetic equipment and workplace safety. The anesthesia machine is incorporated into the learning process to reinforce principles introduced in class. Institutional policies/procedures will be reviewed along with interprofessional communication skills. Education regarding personal wellness and substance abuse risks will be discussed.
Prerequisites: Admission into the DNP-NA program.

NURSE 5620 Advanced Practice V - DNP Clinical Credits: 5
This course is designed to increase the clinical expertise of the student by fostering the development of a specific area of focus. It allows the student to investigate specific procedures, skills or clinical knowledge that will be later utilized in the DNP practicum course. The course is designed to be self-directed allowing the student to focus on her/his own specific clinical interests and/or area of expertise. This five credit hour course consists of one credit hour of didactic and four credit hours of clinical (120 hours).
Prerequisites: All DNP coursework except NURSE 5624.

NURSE 5621A Clinical III Credits: 7
This course will provide students with the opportunity to apply knowledge from previous graduate courses to advanced primary care nursing of adults and geriatrics. The focus is to demonstrate refined advanced assessment, diagnosis, and treatment skills in clinical practice as appropriate in areas of specialization related to multiple disease processes associated in the care of adults and geriatrics. This practice will be based on the application of evidence in the biophysical, psychosocial, behavioral, sociopolitical, cultural, economic, interprofessional practice and nursing science arenas.
Prerequisites: Nurse 5566A.
Co-requisites: Nurse 5617B.

NURSE 5621C Clinical III Credits: 7
This course will provide students with the opportunity to apply knowledge from previous graduate courses to advanced primary care nursing of children. The focus is to demonstrate refined advanced assessment, diagnosis, and treatment skills in clinical practice as appropriate in areas of specialization related to multiple disease processes associated in the care of children. This practice will be based on the application of evidence in the biophysical, psychosocial, behavioral, sociopolitical, cultural, economic, interprofessional practice and nursing science arenas.
Prerequisites: NURSE 5566C.
Co-requisites: NURSE 5617B.

NURSE 5621F Clinical III Credits: 7
This course will provide students with the opportunity to apply knowledge from previous graduate courses to advanced primary care nursing of individuals and families. The focus is to demonstrate refined advanced assessment, diagnosis, and treatment skills in clinical practice as appropriate in areas of specialization related to multiple disease processes associated in the care of individuals and families. This practice will be based on the application of evidence in the biophysical, psychosocial, behavioral, sociopolitical, cultural, economic, interprofessional practice and nursing science arenas.
Prerequisites: NURSE 5566F.
Co-requisites: NURSE 5617B.

NURSE 5621W Clinical III Credits: 6
This course will provide students with the opportunity to apply knowledge from previous graduate courses to advanced primary care nursing of women. The focus is to demonstrate refined advanced assessment, diagnosis, and treatment skills in clinical practice as appropriate in areas of specialization related to multiple disease processes associated in the care of women. This practice will be based on the application of evidence in the biophysical, psychosocial, behavioral, sociopolitical, cultural, economic, interprofessional practice and nursing science arenas.
Prerequisites: NURSE 5566W.
Co-requisites: NURSE 5617.

NURSE 5622 Statistics II Credits: 3
This graduate statistics on-line course is designed to provide a conceptual understanding of the statistical procedures associated with: advanced multiple regression; moderators and mediators in multiple regression; path analysis; logistic regression; factor analysis; MANCOVA; MANOVA; cluster analysis; and canonical correlation.
Prerequisites: NURSE 5612.
NURSE 5623A Advanced Nursing Practice: Synthesis Practicum Credits: 5
This course is a concentrated, experiential, supervised clinical opportunity to function at the highest level of advanced nursing practice. The focus is on the synthesis and application of previous theory, primary care, and specialty clinical courses. Students will be expected to apply advanced clinical decision making skills and evidence based practice guidelines to the assessment, management, and evaluation of complex healthcare problems. Core concepts include integrated nursing science with knowledge of ethical, legal, and health policy issues.
Prerequisites: NURSE 5621A.

Co-requisites: NURSE 5629.

NURSE 5623C Advanced Nursing Practice: Synthesis Practicum Credits: 5
This course is a concentrated, experiential, supervised clinical opportunity to function at the highest level of advanced nursing practice. The focus is on the synthesis and application of previous theory, primary care, and specialty clinical courses. Students will be expected to apply advanced clinical decision making skills and evidence based practice guidelines to the assessment, management, and evaluation of complex healthcare problems. Core concepts include integrated nursing science with knowledge of ethical, legal, and health policy issues.
Prerequisites: NURSE 5621C.

Co-requisites: NURSE 5629.

NURSE 5623F Advanced Nursing Practice: Synthesis Practicum Credits: 5
This course is a concentrated, experiential, supervised clinical opportunity to function at the highest level of advanced nursing practice. The focus is on the synthesis and application of previous theory, primary care, and specialty clinical courses. Students will be expected to apply advanced clinical decision making skills and evidence based practice guidelines to the assessment, management, and evaluation of complex healthcare problems. Core concepts include integrated nursing science with knowledge of ethical, legal, and health policy issues.
Prerequisites: NURSE 5621F.

Co-requisites: NURSE 5629.

NURSE 5623W Advanced Nursing Practice: Synthesis Practicum Credits: 5
This course is a concentrated, experiential, supervised clinical opportunity to function at the highest level of advanced nursing practice. The focus is on the synthesis and application of previous theory, primary care, and specialty clinical courses. Students will be expected to apply advanced clinical decision making skills and evidence based practice guidelines to the assessment, management, and evaluation of complex healthcare problems. Core concepts include integrated nursing science with knowledge of ethical, legal, and health policy issues.
Prerequisites: NURSE 5621W.

Co-requisites: NURSE 5629.

NURSE 5624 Advanced Practice VI-DNP Practicum Credits: 5
This course is designed to synthesize all previous coursework through the implementation and evaluation of a "tangible and deliverable academic product that is derived from the practice immersion experience" (DNP essentials, p.20). Individual student work may take a variety of forms, but will include the elements of evidence evaluation and utilization, systems analysis, and dissemination of best practice information.
Prerequisites: NURSE 5620.

NURSE 5627NA Regional Anesthesia Credit: 1
This course is designed for graduate nurse anesthesia students to review anatomy, pharmacodynamics, pharmacokinetics and physiological effects of local anesthetics and to learn techniques to administer various types of regional anesthesia.
Prerequisites: NURSE 5619NAB.

NURSE 5628NA1 Advanced Physical Health Assessment for the Nurse Anesthetist I Credits: 2
This is the first of a two course series that will present the various elements required to perform a systematic assessment with an emphasis on the patient preparing to undergo anesthesia throughout the lifespan. Integration of in-depth health history, physical and psychological signs and symptoms, diagnostic testing, pathophysiology changes, psychosocial, and cultural characteristics of the individual are emphasized. Professional documentation and communication of findings will be practiced. The student will integrate knowledge and advanced assessment skills to perform a comprehensive pre-anesthesia assessment. Co-requisites: NURSE 5619NAB.
Prerequisites: NURSE 5619NA0.

NURSE 5628NA2 Advanced Physical Health Assessment for the Nurse Anesthetist II Credit: 1
This is the second of a two course series. This course will integrate the student’s knowledge and skills to work effectively and efficiently within the healthcare team to formulate an anesthesia plan of care which takes into consideration assessment findings related to underlying pathology, life circumstance, culture, and ethnicity. Content will include advanced diagnostic testing pertinent to the patient preparing for anesthesia. Assessment skills and critical thinking will be refined through clinical experiences. This course consists of 0.5 credit hours of didactic and 0.5 credit hours of clinical (45 hours).
Prerequisites: NURSE 5628NA1.
NURSE 5629 Clinical Institute III Credits: 2
This course is designed to synthesize all previous course work. The students will utilize education, knowledge and experiences to complete their final DNP project data collection and evaluation of a “tangible and deliverable academic product that is derived from the practice immersion experience” (AACN Essentials 2006, p. 20). Individual student work may take a variety of forms, but will include the multi-faceted elements required of evidence evaluation and utilization, systematic analysis, and dissemination of project data to support best practice.
Prerequisites: Nurse 5617B, Nurse 5621.
Co-requisites: Nurse 5623.

NURSE 5630 Health Care Systems Credits: 3
This course is a guided, in-depth exploration, analysis and evaluation of selected health care systems literature. Other nursing literature will be reviewed as appropriate.
Prerequisites: Admission into Ph.D. in Nursing program.

NURSE 5631 State of the Science Credits: 3
This course is a guided in-depth exploration of literature on a selected focus area. Appropriate contextual system literature will be reviewed as appropriate. Scholarly writing for a variety of contexts will be presented.
Prerequisites: Admission into a doctoral program and completion of a doctoral level theory course or permission of instructor

NURSE 5632 Health Restoration & Support Credits: 3
This course is a guided, in-depth exploration, analysis and evaluation of selected health restoration support literature. Other nursing literature will be reviewed as appropriate.
Prerequisites: Admission into Ph.D. in Nursing program.

NURSE 5636NA Obstetrical Anesthesia Credit: 1
This course is designed to provide the graduate nurse anesthesia student with a broad knowledge base in the field of obstetrical anesthesia. Anatomy and physiology of pregnancy, co-morbidities in the pregnant patient and anesthesia procedures for the pregnant patient will be presented. Lecture topics will be assimilated into high fidelity simulation scenarios to prepare the student for clinical residency courses.
Prerequisites: NURSE 5619NA1.
Co-requisites: NURSE 5619NA2.

NURSE 5637 Healthcare Outcomes and Epidemiology Credits: 2-3
This course is an application of basic epidemiologic principles. This course provides the foundation for assessment and evaluation of health outcomes in a variety of populations, clinical settings, and systems. Concepts introduced include fundamentals of epidemiology, determinants of health, screening, outbreak investigation, and disease surveillance. The course includes content on descriptive and analytic epidemiology.
Prerequisites: NURSE 5612 or equivalent.

NURSE 5638NA1 Pharmacology of Anesthesia I Credit: 1
The course is the first in a two semester sequence designed to provide the graduate nurse anesthesia student with the knowledge of pharmacology and the human physiologic responses to pharmacologic agents when administered to the patient perioperatively.
Prerequisites: NURSE 5619NA3.

NURSE 5638NA2 Pharmacology of Anesthesia II Credits: 2
This course is the second in a two semester sequence designed to provide the graduate nurse anesthesia student with the knowledge of pharmacology and the human physiologic responses to pharmacologic agents when administered to the patient perioperatively.
Prerequisites: NURSE 5638NA1.

NURSE 5640NA Pediatric Anesthesia Credit: 1
This course is designed for the graduate nurse anesthesia student to learn anatomy and physiology specific to the pediatric patient. The most common pathophysiologic states found in the pediatric surgical patient will be discussed as well as fluid management and pharmacology as it relates to the pediatric patient. The goal of this pediatric course is to give the student the basic knowledge of pediatric anesthesia as a foundation, prior to their pediatric clinical rotation.
Prerequisites: NURSE 5619NA2.
Co-requisites: NURSE 5619NA3.

NURSE 5641NA Acute and Chronic Pain Management Credit: 1
The student will develop a basic understanding of pain management as it relates to the field of anesthesia. Advantages and disadvantages of various pain management approaches, as well as general physiologic and anatomic concepts as they relate to pain will be covered. Through the course, various pain management approaches will be implemented and evaluated. Students will be required to demonstrate proficiency in managing acute pain in patients of all ages and varying stages of wellness.
Prerequisites: NURSE 5619NA2.
NURSE 5642NA Comprehensive Review Credit: 1
This is a comprehensive review course that covers all areas of anesthesia, as well as all anesthesiology techniques. This course will discuss normal physiology and pathophysiology of all organ systems and how various anesthesiology techniques and pharmacology affect these systems. The student will be equipped with the knowledge of how to choose appropriate anesthetic techniques for various disease states and surgical procedures. **Prerequisites:** NURSE 5619NA2.

Co-requisites: NURSE 5619NA3.

NURSE 5643NA Professional Practice for the Nurse Anesthetist Credits: 2
This course is designed to explore a range of non-clinical issues in nurse anesthesia practice. Students will gain an appreciation of the professional ideals of the Doctor of Nursing Practice (DNP) prepared Certified Registered Nurse Anesthetist (CRNA) through both online and on-site group discussion. In addition, students will attend professional meetings including: Student Registered Nurse Anesthetist (SRNA) Leadership Luncheon, Missouri Association of Nurse Anesthetists (MoANA) Lobby Day; Wellness in the Workplace, an event highlighting the risks of chemical dependency in nurse anesthesia practice; and one additional state or national professional meeting. **Prerequisites:** Active status in both the UMKC SONHS DNP-NA Track and TMC School of Nurse Anesthesia.

NURSE 5650NA1 Clinical Anesthesia I Credits: 0
The first of three clinical anesthesia practicums designed to provide the nurse anesthesia student simulated learning and complete hands on, supervised clinical practice on adult patients. The foci are skill development and safe anesthetic practice throughout the perioperative period. Students are assigned day experiences and call shifts at Truman Medical Center. Experiences progress in acuity and include, but are not limited to, general, gynecological, orthopedic, oral maxillary facial, urologic, dental, ophthalmic and endoscopic procedures. Core content includes formulation and management of perianesthesia plan of care, utilization of technology, application of EBP, technical skill development and advanced practice role competencies. **Prerequisites:** NURSE 5650NAO, NURSE 5619NAB.

NURSE 5650NA2 Clinical Anesthesia II Credits: 0
The second of three clinical anesthesia practicums designed to provide the nurse anesthesia student simulated learning and complete hands on, supervised clinical practice on adult patients. The foci are skill development and safe anesthetic practice throughout the perioperative period. Students are assigned day experiences and call shifts at Truman Medical Center. Experiences progress in acuity and include, but are not limited to, general, gynecological, orthopedic, oral maxillary facial, urologic, dental, ophthalmic and endoscopic procedures. Core content includes formulation and management of perianesthesia plan of care, utilization of technology, application of EBP, technical skill development and advanced practice role competencies. **Prerequisites:** NURSE 5650NA1.

NURSE 5650NA3 Clinical Anesthesia III Credits: 0
The third of three clinical anesthesia practicums designed to provide the nurse anesthesia student simulated learning and complete hands on, supervised clinical practice on adult patients. The foci are skill development and safe anesthetic practice throughout the perioperative period. Students are assigned day experiences and call shifts at Truman Medical Center. Experiences progress in acuity and include, but are not limited to, general, gynecological, orthopedic, oral maxillary facial, urologic, dental, ophthalmic and endoscopic procedures. Core content includes formulation and management of perianesthesia plan of care, utilization of technology, application of EBP, technical skill development and advanced practice role competencies. **Prerequisites:** NURSE 5650NA2.

NURSE 5650NA4 Clinical Anesthesia IV Credits: 0
This course is the first of a three semester nurse anesthesia residency/practicum designed to provide concentrated, experiential, supervised, high acuity, perioperative experiences. The focus is on the synthesis and application of all previous courses. Students will be expected to apply advance clinical decision-making skills and evidence-based practice guidelines to the assessment, management and evaluation of complex procedures and patients across the lifespan. Students attend specialty rotations at up to 9 different sites. Core concepts include nurse anesthesia practice, technical skill development, integration of technology and evidence based practice to the patient and/or healthcare system, and ethical, legal and professional issues. **Prerequisites:** NURSE 5619NA3 and NURSE 5650NA3.

NURSE 5650NA5 Clinical Anesthesia V Credits: 0
This course is the second of a three semester nurse anesthesia residency/practicum designed to provide concentrated, experiential, supervised, high acuity, perioperative experiences. The focus is on the synthesis and application of all previous courses. Students will be expected to apply advance clinical decision-making skills and evidence-based practice guidelines to the assessment, management and evaluation of complex procedures and patients across the lifespan. Students attend specialty rotations at up to 9 different sites. Core concepts include nurse anesthesia practice, technical skill development, integration of technology and evidence based practice to the patient and/or healthcare system, and ethical, legal and professional issues. **Prerequisites:** NURSE 5650NA4.
NURSE 5650NA6 Clinical Anesthesia VI Credits: 0
This course is the third of a three semester nurse anesthesia residency/practicum designed to provide concentrated, experiential, supervised, high acuity, perioperative experiences. The focus is on the synthesis and application of all previous courses. Students will be expected to apply advanced clinical decision-making skills and evidence-based practice guidelines to the assessment, management and evaluation of complex procedures and patients across the lifespan. Students attend specialty rotations at up to 9 different sites. Core concepts include nurse anesthesia practice, technical skill development, integration of technology and evidence based practice to the patient and/or healthcare system, and ethical, legal and professional issues.

Prerequisites: NURSE 5650NA5.

NURSE 5650NAO Clinical Anesthesia Orientation Credits: 0
Orientation to clinical practice during which students participate in hands on, supervised clinical practices and simulated clinical learning experiences. Students orient to the Hospital, OR, and Anesthesia department. Clinical education focus is on safe anesthetic practice and skill development throughout the entire perioperative period. Experiences include basic airway management, equipment procurement, anesthesia assessment process, induction and emergence from anesthesia. Clinical orientation experiences include multiple patient populations, ages and sub specialties within anesthesia practice.

Prerequisites: NURSE 5619NAO.

Co-requisites: NURSE 5619NAB.

NURSE 5659NA Health Systems, Economics and Quality in Nurse Anesthesia Practice Credits: 2
This course is designed to introduce the nurse anesthesia student to the fundamental principles of healthcare economics and healthcare systems. The effects of economics will be discussed from a broad viewpoint and from the various perspectives of anesthesia care delivery models. This course will also discuss the impact of quality indicators on anesthesia practice. The course will begin with a leadership summit and continue with online content and discussion forums.

Prerequisites: NURSE 5674NA1.

NURSE 5661NA1 Anesthesia & Co-Existing Diseases I Credits: 2
This course is the first in a two semester series designed to provide senior nurse anesthesia students with the knowledge of pathophysiology of various disease states and their anesthesia implications.

Prerequisites: NURSE 5619NA3.

NURSE 5661NA2 Anesthesia & Co-Existing Diseases II Credit: 1
This course is the second in a two semester series designed to provide senior nurse anesthesia students with the knowledge of pathophysiology of various disease states and their anesthesia implications.

Prerequisites: NURSE 5661NA1.

NURSE 5662 Psychometrics Credits: 3
This course focuses on application of psychometric theories and practices related to instrumentation in nursing research. The basic methodologies and techniques for constructing, testing, and evaluating instruments will be discussed and applied by students. Content will focus on theoretical foundations of measurement, item construction, instrument design, item analysis, validity and reliability assessment. Criteria for evaluating existing instruments will also be discussed. Prerequisites: NURSE 5612 or equivalent; NURSE 5622 or equivalent; NURSE 5668 or equivalent.

NURSE 5666 Designing Nursing Research Credits: 3
This doctoral level course directs the student to develop research writing skills necessary for developing their dissertation and future program of research. Critical analyses of methodologies and design are accomplished. The strengths and weakness of various research designs (non-experimental, quasi-experimental, experimental and randomized clinical trial) are evaluated via in-depth discussions.

Prerequisites: NURSE 5610, NURSE 5612, NURSE 5622, NURSE 5662, NURSE 5668, NURSE 5670.

NURSE 5668 Quantitative Research Credits: 3
Quantitative research methods used to build nursing’s body of knowledge are explored. Experimental, quasi-experimental, and correlational designs and clinical trials are analyzed. Emphasis is placed on design, data generation, analysis, and dissemination of findings. Issues pertaining to the use of quantitative methods will also be explored.

Prerequisites: NURSE 5610, PSYCH 5516.

NURSE 5670 Qualitative Research Methods Credits: 3
Qualitative research methods used to build nursing’s body of knowledge are explored in this seminar course. Emphasis is placed on design, data generation and analysis, and dissemination of findings. Issues regarding qualitative research are identified and analyzed.

Prerequisites: Admission to the Nursing Ph.D. program.
NURSE 5671 Advanced Qualitative Research and Mixed Methods Credits: 3
This graduate level course is designed for students who have had an introduction to qualitative research methods and want to pursue more in-depth study of these methodologies, with emphasis on a chosen methodology that they hope to use in their own research. Appropriateness of methodological choice in relation to research question, application of theory, rhetorical style and author presence, and criteria for judging quality will be among the topics explored for various methodologies and data generation (collection) and data analysis skills will be practiced. The course will also acquaint students with the growing literature on mixed methods research.
Prerequisites: Admission to the Nursing Ph.D. program, an introductory qualitative research course.

NURSE 5674NA1 Scholarly Project in Nurse Anesthesia I Credits: 2
This is the first in a series of four courses that culminate in a scholarly project in nurse anesthesia that demonstrates the scholarship of integration and application. This is a distance education course. The student will identify a complex problem in their area of interest and expertise, design, implement, and evaluate an innovative solution to this problem. The student will use the breadth of knowledge and scholarship skills gained through their program of study to improve practice and/or patient outcomes. It validates the student's ability to translate research evidence into practice. This project lays the foundation for future scholarship.
Prerequisites: NURSE 5637.

NURSE 5674NA2 Scholarly Project in Nurse Anesthesia II Credits: 2
This is the second in a series of four courses that culminate in a scholarly project in nurse anesthesia that demonstrates the scholarship of integration and application. This is a distance education course. The student will identify a complex problem in their area of interest and expertise, design, implement, and evaluate an innovative solution to this problem. The student will use the breadth of knowledge and scholarship skills gained through their program of study to improve practice and/or patient outcomes. It validates the student's ability to translate research evidence into practice. This project lays the foundation for future scholarship.
Prerequisites: NURSE 5674NA1.
Co-requisites: NURSE 5659NA.

NURSE 5674NA3 Scholarly Project in Nurse Anesthesia III Credits: 2
This is the third in a series of four courses that culminate in a scholarly project in nurse anesthesia that demonstrates the scholarship of integration and application. This is a face-to-face course. The student will identify a complex problem in their area of interest and expertise, design, implement, and evaluate an innovative solution to this problem. The student will use the breadth of knowledge and scholarship skills gained through their program of study to improve practice and/or patient outcomes. It validates the student's ability to translate research evidence into practice. This project lays the foundation for future scholarship.
Prerequisites: NURSE 5674NA2.
Co-requisites: NURSE 5643NA.

NURSE 5674NA4 Scholarly Project in Nurse Anesthesist IV Credits: 2
This is the fourth in a series of four courses that culminate in a scholarly project in nurse anesthesia that demonstrates the scholarship of integration and application. This is a face-to-face course. The student will identify a complex problem in their area of interest and expertise, design, implement, and evaluate an innovative solution to this problem. The student will use the breadth of knowledge and scholarship skills gained through their program of study to improve practice and/or patient outcomes. It validates the student's ability to translate research evidence into practice. This project lays the foundation for future scholarship.
Prerequisites: NURSE 5674NA3.

NURSE 5696 Pre-Dissertation Credits: 1-2
This course is individually directed research leading to the preparation of a doctoral dissertation.
Prerequisites: Permission of the instructor.
Co-requisites: Completion of the comprehensive examination.

NURSE 5697A Special Topics Nursing Elective Credits: 1-6
This course consists of the guided study of special topics in areas of nursing theory and/or research.
Prerequisite: Admission into PhD in Nursing Program

NURSE 5697APP Special Topics Nursing Credits: 1-6
NURSE 5697AR Special Topics Nursing Credits: 1-6
NURSE 5697B Special Topics Nursing-Equivalent Credits: 1-6
This course will cover guided study of course equivalent topics in areas of nursing theory and/or research.
Prerequisites: Admission into Ph.D. in Nursing program.
NURSE 5697CI Special Topics Nursing Credits: 1-6
NURSE 5697CP Special Topics Nursing Credits: 1-6
NURSE 5697CR Special Topics Credits: 1-6
This course will cover guided study of course equivalent topics in areas of nursing theory and/or research.

Prerequisites: Admission into Ph.D. in Nursing program.

NURSE 5697DP Special Topics Nursing Credits: 1-6
NURSE 5697HER Special Topics in Nursing Credits: 1-6
NURSE 5697RD Special Topics Nursing Credits: 1-6
NURSE 5697SHA Special Topics-Nursing Credits: 1-6
Special Topics-Nursing
NURSE 5697SHB Special Topics Nursing Credits: 1-6
Special Topics Nursing
NURSE 5697SHC Special Topics Nursing Credits: 1-6
Special Topics Nursing
NURSE 5697WLA Special Topics in Nursing Credits: 1-6
Special Topics in Nursing
NURSE 5697WLB Special Topics in Nursing Credits: 1-6
Special Topics in Nursing
NURSE 5697WLC Special Topics in Nursing Credits: 1-6
Special Topics in Nursing
NURSE 5699 Dissertation Research Credits: 1-12
Individual directed research leading to preparation and completion of doctoral dissertation.

NURSE 5899 Required Graduate Enrollment Credit: 1

Oboe (OBOE)

Courses
OBOE 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

Cross Listings: OBOE 300.

OBOE 5500A Graduate Oboe-Secondary Credits: 2
OBOE 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

OBOE 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

OBOE 5501 Graduate Oboe-Master Performance Credits: 4
OBOE 5601 Graduate Oboe - Doctoral Performance Credits: 4

Oral & Craniofacial Sciences (OR-BIO)

Courses
OR-BIO 5699 Dissertation Research Credits: 1-12
Ph.D. dissertation research.

OR-BIO 5702 Biomechanics of Mineralized Tissue Credits: 3
The physical principles underlying mineralized tissue biomechanics will be presented at multiple hierarchies. Details of bone, tooth and joint (with a special emphasis on the TMJ) anatomy and function will be outlined as related to mechanical loading.

OR-BIO 5899 Required Graduate Enrollment Credit: 1

Oral Surgery (OR-SURG)
Courses

OR-SURG 5700 Principles Of Oral Surgery I Credit: 1
A conference on diagnosis, treatment planning, surgical technique.

Prerequisites: OR-SURG 5700.

OR-SURG 5701 Principles of Oral Surgery II Credit: 1

Prerequisites: OR-SURG 5701.

OR-SURG 5702 Principles of Oral Surgery III Credit: 1

Prerequisites: OR-SURG 5702.

OR-SURG 5703 Principles of Oral Surgery Iv Credit: 1

Prerequisites: OR-SURG 5703.

OR-SURG 5704 Clinical Oral Surgery I Credit: 1
The clinical application of the principles of diagnosis, treatment planning, and surgical techniques.

Prerequisites: OR-SURG 5704.

OR-SURG 5705 Clinical Oral Surgery II Credit: 1

Prerequisites: OR-SURG 5705.

OR-SURG 5706 Clinical Oral Surgery III Credit: 1

Prerequisites: OR-SURG 5706.

OR-SURG 5707 Physical Diagnosis For The Oral & Maxillofacial Surgeon I Credit: 1
Basic physical diagnosis and review of systems as it relates to the practice of Oral and Maxillofacial Surgery.

OR-SURG 5708 Physical Diagnosis For The Oral & Maxillofacial Surgeon II Credit: 1
Advanced physical diagnosis and review of systems as it relates to the practice of Oral and Maxillofacial Surgery.

OR-SURG 5709 Physical Diagnosis For The Oral & Maxillofacial Surgeon III Credit: 1
Oral and Maxillofacial Surgery and the medically compromised patient.

Prerequisites: OR-SURG 5709.

OR-SURG 5710 Physical Diagnosis for the Oral & Maxillofacial Surgeon Iv Credit: 1

Prerequisites: OR-SURG 5710.

OR-SURG 5711 Physical Diagnosis for the Oral & Maxillofacial Surgeon V Credit: 1

Prerequisites: OR-SURG 5711.

OR-SURG 5712 Physical Diagnosis for the Oral & Maxillofacial Surgeon Vi Credit: 1

Prerequisites: OR-SURG 5712.

OR-SURG 5713 Advanced Physical Diagnosis For Oral & Maxillofacial Surgeon I Credit: 1
Advanced physical diagnosis and review of systems as it relates to the practice of Oral and Maxillofacial Surgery.

Prerequisites: OR-SURG 5713.

OR-SURG 5714 Advanced Physical Diagnosis for Oral & Maxillofacial Surgeon I Credit: 1

Prerequisites: OR-SURG 5714.

OR-SURG 5715 Advanced Physical Diagnosis for Oral & Maxillofacial Surgeon II Credit: 1

Prerequisites: OR-SURG 5715.

OR-SURG 5716 Special Problems In Oral And Maxillofacial Surgery I Credit: 1

OR-SURG 5717 Special Problems In Oral And Maxillofacial Surgery II Credit: 1

OR-SURG 5718 Special Problems - Oral & Maxillofacial Surgery IV Credit: 1
Special Problems - Oral Maxillofacial Surgery IV

OR-SURG 5720 Oral Surgery Hospital Residency I Credit: 1
Two calendar years of hospital residency in an affiliated teaching hospital. The residency provides additional training in major oral surgery and didactic education in oral surgery and science areas, including anesthesiology, diagnosis, pathology, and radiology.

Prerequisites: OR-SURG 5720.

OR-SURG 5721 Oral Surgery Hospital Residency II Credit: 1

Prerequisites: OR-SURG 5721.

OR-SURG 5722 Oral Surgery Hospital Residency III Credit: 1

Prerequisites: OR-SURG 5722.

OR-SURG 5723 Oral Surgery Hospital Residency Iv Credit: 1

Prerequisites: OR-SURG 5723.

OR-SURG 5724 Oral Surgery Hospital Residency V Credit: 1

Prerequisites: OR-SURG 5724.

OR-SURG 5725 Oral Surgery Hospital Residency Vi Credit: 1

Prerequisites: OR-SURG 5725.
OR-SURG 5727 Major Oral Surgery I Credit: 1
A comprehensive study of major oral surgery. Lectures are correlated with surgical exercises which are performed in the anatomy laboratory.

OR-SURG 5728 Major Oral Surgery II Credit: 1
Prerequisites: OR-SURG 5727.

OR-SURG 5729 General Anesthesiology And Pharmacology I Credit: 1
The pharmacological principles of the various anesthetic agents and allied medications.

OR-SURG 5730 General Anesthesiology and Pharmacology II Credit: 1
Prerequisites: OR-SURG 5729.

OR-SURG 5731 Clinical General Anesthesiology And Pharmacology I Credit: 1
The clinical application of various anesthetic and pharmacological agents.

OR-SURG 5732 Clinical General Anesthesiology and Pharmacology II Credit: 1
Prerequisites: OR-SURG 5731.

OR-SURG 5733 Clinical General Anesthesiology and Pharmacology III Credit: 1
Prerequisites: OR-SURG 5732.

OR-SURG 5734 Clinical/Major General Anesthesiology And Pharmacology I Credit: 1
The clinical/major surgical application of various anesthetic and pharmacological agents.

OR-SURG 5735 Clinical/Major General Anesthesiology and Pharmacology II Credit: 1
Prerequisites: OR-SURG 5734.

OR-SURG 5736 Clinical/Major General Anesthesiology and Pharmacology III Credit: 1
Prerequisites: OR-SURG 5735.

OR-SURG 5737 Pediatric General Anesthesiology And Pharmacology I Credit: 1
The pharmacological principles of various anesthetic agents and allied medications in the pediatric patient.

OR-SURG 5740 Oral & Maxillofacial Surgery Independent Study Credits: 1-6
An advanced study and/or elective course in Oral and Maxillofacial Surgery related field(s) which enhances the compulsory curriculum.

OR-SURG 5752 Seminar In Oral Surgery I Credit: 1
A discussion of current literature and research relating to oral surgery.

OR-SURG 5753 Seminar in Oral Surgery II Credit: 1
Prerequisites: OR-SURG 5752.

OR-SURG 5754 Seminar In Oral Surgery III Credit: 1
OR-SURG 5755 Seminar in Oral Surgery Iv Credit: 1
Prerequisites: OR-SURG 5754.

Organ (ORGAN)

Courses
ORGAN 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

ORGAN 5500A Graduate Organ-Secondary Credits: 2

ORGAN 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

ORGAN 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

ORGAN 5501 Graduate Organ - Masters Performance Credits: 4

Orthodontics (ORTHOD)
Courses

ORTHOD 5704 Orthodontics And Dentofacial Orthopedics I Credits: 1-6
Orthodontic theory, treatment techniques and treatment of patients; includes current and historical concepts.

ORTHOD 5705 Orthodontic and Dentofacial Orthopedics II Credits: 1-6
Prerequisites: ORTHOD 5704.

ORTHOD 5706 Orthodontics and Dentofacial Orthopedics III Credits: 1-6
Prerequisites: ORTHOD 5705.

ORTHOD 5707 Orthodontics and Dentofacial Orthopedics Iv Credits: 1-6
Prerequisites: ORTHOD 5706.

ORTHOD 5708 Orthodontic and Dentofacial Orthopedics V Credits: 1-6
Prerequisites: ORTHOD 5707.

ORTHOD 5709 Orthodontic and Dentofacial Orthopedics Vi Credits: 1-6
Prerequisites: ORTHOD 5708.

ORTHOD 5710 Orthodontic and Dentofacial Orthopedics Vi7 Credits: 1-6
Prerequisites: ORTHOD 5709.

ORTHOD 5711 Orthodontics and Dentofacial Orthopedics Vi8 Credits: 1-6
Prerequisites: ORTHOD 5710.

ORTHOD 5726 Cephalometric I Credits: 2
An introductory lecture and laboratory course in the principles of radiographic cephalometry and integrated cephalometric analysis.

ORTHOD 5727 Cephalometric II Credits: 2
An advanced lecture and laboratory course with emphasis on the use of a computer in cephalometric analysis.

Percussion (PERCSN)

Courses

PERCSN 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Cross Listings: PERCSN 300.

PERCSN 5500A Graduate Percussion-Secondary Credits: 2

PERCSN 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

PERCSN 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

PERCSN 5500JA Graduate Applied Jazz Studies Credits: 2
One-hour lesson weekly. Jury examination is required.
Prerequisites: Graduate standing.

PERCSN 5500JB Special Applied Jazz Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. A jury for comments only may be held at the discretion of the faculty.
Prerequisites: Graduate standing.

PERCSN 5500JC Applied Jazz Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied jazz study in an area other than, and in addition to, their primary performance study.
Prerequisites: Graduate standing.

PERCSN 5501 Graduate Percussion - Masters Performance Credits: 4

PERCSN 5601 Graduate Percussion - Doctoral Performance Credits: 4

Periodontics (PERIO)
Courses
PERIO 5700 Periodontic Residency I Credits: 1-2
Didactics, Seminars in Basic Periodontics with Clinical Practice.

PERIO 5701 Periodontal Residency I Credits: 1-6
Clinical Periodontics with Related Didactics and Seminar. This first year course introduces the incoming advanced education student to the principles and techniques in the field of advanced periodontics.

PERIO 5702 Periodontal Residency II Credits: 1-6
Clinical Periodontics with Related Didactic and Seminar. This first year course continues the instruction of the advanced education student to the principles and techniques in the field of advanced periodontics.
Prerequisites: PERIO 5701.

PERIO 5703 Periodontal Residency III Credits: 1-6
Clinical periodontics, with related didactics and seminar. This first year course continues the instruction of the advanced education student to the principles and techniques in the field of advanced periodontics, and builds upon the material taught in previous courses as well as introduces new information.

PERIO 5704 Periodontal Residency IV Credits: 1-6
Clinical periodontics with related didactics and seminar. This second year course is designed to transition the first year student into a second year advanced education student and builds upon the material taught in previous courses as well as introducing new information.
Prerequisites: PERIO 5701, PERIO 5702, PERIO 5703.

PERIO 5705 Periodontal Residency V Credits: 1-6
Clinical Periodontics with Related Didactics and Seminar. This second year course continues the instruction of the advanced education student to the principles and techniques in the field of advanced periodontics, and builds upon the material taught in previous courses as well as introducing new information.
Prerequisites: PERIO 5704.

PERIO 5706 Periodontal Residency VI Credits: 1-6
Clinical Periodontics with Related Didactics and Seminar. This second year course is designed to build upon the In-depth knowledge base of the advanced education student, as well as introducing new information, transitioning the student into a more proficient student in advanced periodontics.
Prerequisites: PERIO 5705.

PERIO 5707 Periodontal Residency VII Credits: 1-6
Clinical Periodontics with Related Didactics and Seminar. This third year course serves to transition the student into a clinician who by repeated action exhibits in depth levels of knowledge and skill. It builds upon material previously taught.
Prerequisites: PERIO 5706.

PERIO 5708 Periodontal Residency VIII Credits: 1-6
Clinical Periodontics with Related Didactics and Seminar. This third year course builds upon information previously taught and completes the transition of the student into a proficient specialist in Periodontology.
Prerequisites: PERIO 5707.

PERIO 5709 Periodontal Residency IX Credits: 1-6
Clinical Periodontics with Related Didactics and Seminar. This third year course is designed to build upon the in-depth information and knowledge base previously taught and completes the transition of the student into a proficient specialist in periodontology.
Prerequisites: PERIO 5708.

PERIO 5719 Implantology Credits: 2
This 2 credit hour seminar is designed for a student in the Advanced Education Program in Periodontology to develop in-depth knowledge of the concepts and theories of implant dentistry as they relate to periodontist. It will provide basic and advanced information and guidance which will serve to complement course work in PERIO 5702 through PERIO 5709, and the clinical implant dentistry experience offered in the program at a minimum to a level of competency.

PERIO 5720 General Anesthesia Credit: 1
A rotation to the Department of Anesthesiology of K.C. Veterans Administration Medical Center. Students become familiar with operating room procedures, medical emergencies, venipuncture, airway maintenance and pharmaco-physiology of sedative, analgesic and anesthetic agents as well as drug interactions.

PERIO 5730 Biology Of The Periodontium Credits: 1-2
Biology of the Periodontium covers the embryology, histology, ultrastructure and biochemistry of stratified squamous epithelium, fibrous connective tissue, bone and cementum. These four tissues are studied in health and during inflammatory disease and healing of surgical wounds. Major emphasis is placed on immune system interactions with bone and fibrous connective tissue components during inflammatory periodontal disease.
PERIO 5799 Research And Thesis Credits: 1-6
PERIO 5899 Required Graduate Enrollment Credit: 1

Pharmacy (PHARM)

Courses
PHARM 5507 Basic Pharmacology Credits: 3
Basic pharmacological concepts and important classes of pharmacologic agents.
Prerequisites: LS-ANATO 118, LS-BIOC 365, LS-PHYS 117.

PHARM 5509 Toxicology Credits: 3
Principles of general toxicology and toxicology of industrial and household chemicals, agricultural agents, social poisons, and selected therapeutic agents. Prerequisites: Successful completion of prior professional program coursework or course coordinator’s permission.
Cross Listings: PHARM 7463.

PHARM 5519 Pharmacology I Credits: 2
Basic pharmacological principles of drug absorption, distribution, metabolism and elimination; concept of drug-receptor interactions; dose-response relationships and mechanism of action; and signaling mechanisms.
Prerequisites: Successful completion of prior professional program coursework or course coordinator’s permission.
Cross Listings: PHARM 7361.

PHARM 5520 Pharmacology II Credits: 4
Principles of and advances in chemotherapy; biology, mechanism of action; clinical applications and adverse effects of various drug groups.
Prerequisites: Successful completion of prior professional program coursework or course coordinator’s permission.
Cross Listings: PHARM 7362.

PHARM 5521 Advanced Organic Medicinal Chemistry Credits: 3
The focus of this course is an examination of the physical-chemical basis of drug action, particularly focusing on the formation of drug-target complexes. This includes the mathematical description of this binding, as well as an advanced description of the physical forces responsible for binding. In addition we will examine the energetic and entropic factors that contribute to complex stability, examining real world examples when possible.

PHARM 5527 Analytical Methods Credits: 3
A detailed study of the methods used to detect, identify, and quantitate drugs, small molecules, enzymes, proteins, and biological molecules. The statistical foundation, core concepts, and practical implementation of analytical methods are areas of emphasis. State-of-the-art instrumentation and recent technological developments are also presented, including biotechnology based methods such as proteomics methods and quantitative PCR.

PHARM 5530 Pharmacology III Credits: 4
Mechanism of action; therapeutic uses; and adverse effects of drugs affecting different organ systems.
Prerequisites: Successful completion of prior professional program coursework or course coordinator’s permission.
Cross Listings: PHARM 7363.

PHARM 5531 Physical Pharmacy Equilibria Credits: 3
Advanced principles of aqueous solutions, acid-base equilibria, solubility and complexation. Mathematical solutions and state-of-the-art research applications.
Prerequisites: B.S. in pharmacy.

PHARM 5533 Advanced Pharmacokinetics and Biopharmaceutics Credits: 3
This course involves the study of the rates at which drug absorption, distribution, metabolism, and excretion occur in the body following medication administration. The student will be expected to kinetically model a given physiological process associated with the disposition of a drug in any tissue, write a series of equations, and then solve those equations to produce a final set of equations that can be used to predict the concentrations of drug in the biological matrix of interest. Knowledge of derivation of equations is expected, along with real-world application of resulting equations. Offered fall semester of odd-numbered years.
Prerequisites: A grade of "B" of better in PHARM 7303 (An Introduction to Pharmacokinetics and Biopharmaceutics) and a grade of "B" or better in a course of the student’s choosing in ordinary differential equations (ODE) offered by a mathematics department, e.g., MATH 345 at UMKC.
PHARM 5550 Stability of Pharmaceuticals Credits: 3
The course provides instruction in the processes responsible for instability of pharmaceuticals. Course content includes, but is not limited to, instability due to light, oxygen, and metal ions; the effect of temperature on the rate of drug decomposition; the effect of dielectric constant and ionic strength on degradation; and physical and chemical instability of newer polypeptide drugs. In addition, practical strategies to prevent instability of the active compound and excipients used in pharmaceutical formulations is provided.
Prerequisites: MATH 210, PHARM 7202, PHARM 7203.

PHARM 5555 Religion, Culture and Health Credits: 3
This course addresses the impact of religious beliefs on the culture practices of contemporary society, and aims at examining the relationship between these beliefs, modern sciences and health.

PHARM 5560 Discussions in Pharmacology Credit: 1
Discussions in Pharmacology (also called Pharmacology Journal Club), is a graduate course. It is designed to provide graduate student the opportunity to read, interpret and present literature to fellow peers, post-docs and faculty. The Journal Club presentations promote active and lively discussion and exchange of ideas. The class is a mandatory requirement for all graduate students in the Division of Pharmacology Toxicology.
Prerequisites: B.S. (or equivalent) in biology, chemistry, pharmacy or related biomedical sciences.

PHARM 5580A Seminar in Pharmaceutical Sciences Credit: 1
Enrollment and participation required of all graduate students in the School of Pharmacy during each semester of graduate study.

PHARM 5580C Seminar in Pharmacology/Toxicology Credit: 1
Enrollment and participation required of all graduate students in the School of Pharmacy during each semester of graduate study.

PHARM 5588 Techniques in Biotechnology Credits: 3
In this graduate course, the principle theories, techniques and strategies to conduct experiments using common biotechnology/molecular biology techniques will be discussed. The course material has been designed to provide up to date information on techniques in biotechnology. Knowledge on these basic biotechnology/molecular biology techniques will be useful in diverse fields like biochemistry and pharmaceutical sciences to work with nucleic acid and proteins.
Prerequisites: B.S. (or equivalent) in biology, chemistry, pharmacy or related discipline.

PHARM 5590A Special Topics Pharmacy Credits: 1-3

PHARM 5599A Research And Thesis Pharmacy Credits: 1-9

PHARM 5599C Research And Thesis Pharmacology Credits: 1-9

PHARM 5615 Methods In Pharmacology And Toxicology Credits: 3
Exposure to some of the techniques employed in research in pharmacology and toxicology. There are eight one-hour introductory lectures for the course, followed by six hours of laboratory per week.

PHARM 5630 Cytochrome P450: Drug Metabolism, Bioavailability, Interactions and Toxicity Credits: 3
This course is designed to provide students up-to-date scientific facts on drug metabolism, bioavailability interactions, and toxicity (DMBIT) in perspective of cytochrome P450 (CYP) and the factors that affect DMBIT. The course will also include prospects of CYP applications for various purposes in reference to drug metabolism. The course will include lectures, lab experience, and student seminar/report.
Prerequisites: B.S. (or equivalent) in chemistry, biology, pharmacy, or related subject.

PHARM 5631 Pharmaceutical Formulations I Credits: 3
Advanced theory and practice of Pharmaceutical formulations, including classical and current research. This course will introduce the principles of biomaterial based drug delivery systems and unify knowledge from the fields of biology, materials science, and pharmaceuticals.
Prerequisites: B.S. in Pharmacy.

PHARM 5632 Novel Drug Delivery Systems Credits: 3
The course offers up-to-date information about drug transport mechanisms and drug absorption processes across various absorptive membranes ie., buccal, nasal, dermal, corneal, pulmonary, and oral mucosae. The course material has been designed to provide current ideas and thinking about gene delivery, drug targeting to tumor cells and lipid and carrier mediated drug delivery. It provides unique information about cell culture models as a predictor of drug delivery as well as physical chemistry of surfaces in various microparticulates and lipid emulsion systems.

PHARM 5633 Receptor Pharmacology and Signal Transduction Credits: 3
Molecular characterization of drug receptors involving quantitative description of functional studies with agonists and antagonists and binding of ligands to receptors; the molecular structure of receptors and the signaling systems that couple receptors to their pharmacologic functions.
Prerequisites: LS-BIOC 370, PHARM 5519, PHARM 5520, PHARM 5530.

PHARM 5634 Protein and Nucleic Acid Drug Delivery Credits: 3
In the graduate course, the principle theories, techniques and strategies in developing protein and nucleic acid drugs will be discussed. The course material has been designed to provide up to date information in protein and nuclear acid drug delivery. It offers unique information on how to combine knowledge of chemistry, molecular biology and pharmaceutical sciences to achieve successful therapeutic application of protein and nucleic acid.
Prerequisites: B.S. in bioengineering, biology, chemistry, pharmacology, or pharmacy.
PHARM 5640 Biochemical and Molecular Toxicology Credits: 3
This course will provide students with a comprehensive mechanistic understanding of various molecular events that lead to and/or are associated with chemically/environmentally induced degenerative or proliferative diseases. The course will include lectures, student presentations of recent advances in biochemical and molecular toxicology, and a student report on a topic of interest as it pertains to the subject being taught. The title of the report must be approved by the course coordinator.

**Prerequisites:** B.S. (or equivalent) in biochemistry, biology, chemistry, or molecular biology.

PHARM 5645 Cancer Biotechnology I Credits: 3
This course is designed to provide a basic understanding of tumor progression, molecular events, and signaling mechanisms underlying tumor formation. Epidemiological approaches, etiology, and current methods of detection and diagnosis of cancer will be discussed. Current pharmacological management strategies of cancer and future therapeutic interventions will also be reviewed.

**Prerequisites:** BIOLOGY 202 (or equivalent).

PHARM 5690BB Special Topics Toxicology Credits: 1-3
PHARM 5690C Special Topics Pharmacology Credits: 1-3
PHARM 5690PCII Special Topics Pharmacy Credits: 1-3

Special Topics Pharmacy

PHARM 5699 Research and Dissertation Credits: 1-16
Available for Doctorate program with the following emphasis areas: (A) Pharmacy, (B) Pharmaceutical Chemistry, (C) Pharmacology, (AA) Pharmacy Administration, and (BB) Toxicology.

PHARM 5699A Research And Dissertation - Pharmacy Credits: 1-16
PHARM 5699B Research And Dissertation Pharmaceutical Chemistry Credits: 1-16
PHARM 5699BB Research And Dissertation Toxicology Credits: 1-16
PHARM 5699C Research And Dissertation Pharmacology Credits: 1-16

PHARM 5899 Required Graduate Enrollment Credit: 1

**PHARM 7100A Introductory Topics in Pharmacy I Credit: 1**
These courses include presentations and discussions on the profession of pharmacy including: the roles and responsibilities of the pharmacist, educational requirements to obtain the degree, career opportunities, student life, legal and ethical issues, and study skills development.

**PHARM 7101 Introduction to the Professional Degree Program and Pharmacy Practice Credits: 2**
This course introduces students to the profession of pharmacy by communicating drug names, defining drug-related problems and discussing professional responsibilities and roles of a pharmacist. Students will examine and reflect on personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could enhance or limit personal and professional growth following completion of various self-assessments. This course also assists students to assume responsibility for their own learning. One 2-hour class session is held per week.

**Prerequisites:** Admission to the Pharm.D. Program.

**PHARM 7110 Professional Skills II: Pharmacy Calculations Credits: 2**
This course provides instruction in performing and applying the necessary calculations involved in pharmacy practice and the dispensing, manufacturing, and preparation of dosage forms. Topics covered include but are not limited to: fundamentals of pharmaceutical calculations, exponents, ratios, percentages, proportions, and fractions; International System of Units; pharmaceutical measurements; interpretations of medication orders and prescriptions; density, specific gravity, and specific volume; patient-specific parameters involved in dosing (surface area, weight, and age); isotonicity and buffer solutions; milliequivalents, millimoles, and milliosmoles; dilution, concentration, and allegation; and reduction/enlargement of formulas. Students must have an understanding of mathematical principles to include algebra and calculus.

**Prerequisites:** MATH 210.

**PHARM 7151 Introduction to Pharmacy Law Credit: 1**
This course will examine the federal laws that pertain to the practice of pharmacy.

**PHARM 7199 Pharmacy Grand Rounds Credits: 0.25**
The School of Pharmacy offers Grand Rounds seminars for the student body regarding timely and important topics and issues facing the profession of the School.

**PHARM 7202 Pharmaceutics I Credits: 3.5**
Physicochemical properties of drug systems with consideration of incompatibilities and stabilization of pharmaceutical dosage forms, and physicochemical properties affecting drug action, degradation, and bioavailability.

**Prerequisites:** PHARM 7110.

**PHARM 7203 Pharmaceutics II Credits: 3**
Discussion of pharmaceutical processes, equipment and material used in drug delivery systems, and the preparation and evaluation of various drug delivery systems and formulations.

**Prerequisites:** PHARM 7202.
PHARM 7203L Pharmaceutics II Lab Credit: 1
In this lab course, students will perform hands-on pharmaceutical processes, use manufacturing equipment, and prepare formulations in which selected dosage forms are manufactured and evaluated. This is a professional elective option for Pharm.D. students.

**Prerequisites:** PHARM 7202.

**Co-requisites:** PHARM 7203.

PHARM 7224 Introduction to Cannabis Medicine Credit: 1
The course will serve as an introduction to the endogenous cannabinoid system and explore the clinical potential and the clinical, social, and legal problems associated with medicinal use of cannabis and cannabinoid medicines.

PHARM 7233 U.S. Health Care System and Marketing Credits: 3
U.S. Health Care System and Marketing is a required course for the Doctor of Pharmacy degree program at The University of Missouri-Kansas City School of Pharmacy. It consists of two modules: U.S. Health Care System and Medication Safety (Module 1), and Health Care Marketing (Module 2). The learning objectives of the course are to (1) characterize components of the U.S. health care system at the macro level, including public health programs; (2) discuss medication errors and management within the U.S. health care system; (3) manage patients' health care needs using technological resources to optimize safety and efficacy of medication use systems; and (4) analyze the marketing process for health care projects and services, including business ethics in marketing activities. This course provides the context and builds the knowledge base for future required courses in economic, social, and administrative sciences.

PHARM 7244 Introduction to Drugs of Abuse Credits: 2
As a health professional in training, it is important to know the mental and behavioral effects of abusing both prescription and illicit substances. This knowledge will help the health professional to be more understanding of their patients who may be suffering with a substance abuse problem. Introduction to Drugs of Abuse will focus on both the physical and psychological effects of substances such as hallucinogens, amphetamines, alcohol, and nicotine among others. The course will also be discussing important topics such as behavioral modification, the controversies of treatment, and the role of the pharmacist in the treatment of substance abuse. A substantial focus will also be placed on patient experiences and the psycho-social aspects of substance abuse.

**Prerequisites:** LS-ANATO 118, LS-ANATO 118L.

**Co-requisites:** LS-PHYS 399, LS-PHYS 400.

PHARM 7245 Top Drugs I Credit: 1
This 1.0 hour course is designed as an introduction to up to 300 of the most commonly prescribed medications. This course will provide students with the opportunity to learn basic drug knowledge including brand (trade) and generic names, narcotic class, therapeutic class, common dosage forms, and FDA approved indications, dosing, pharmacology/pharmacokinetics, drug interactions, contraindications/precautions, and adverse effects.

**Prerequisites:** Successful completion of the P1 year in the Pharm.D. Program

PHARM 7266 Medical & Medication Error Evaluation & Management Credit: 1
A course designed to discuss the current body of evidence with respect to medical quality, medication errors, and strategies used to improve quality minimize error rates. At the completion of the course, the student should be able to (1) review and synthesize evidence within the literature; (2) describe the policy framework designed to improve health care quality; (3) describe characteristics and factors that enable encourage providers to improve the quality of care; (4) describe common causes of medication errors; (5) differentiate strategies to prevent errors; (6) correlate medication errors and specific disease states.

PHARM 7275 The Pharmacists' Role in Global Health Credits: 2
This course is designed to introduce students to the global context of public health. "Global Health" is defined as the application of principles of public health to health issues and challenges that transcend geopolitical boundaries, and to the complex array of global and local forces that affect these health issues.

PHARM 7277 Zoonotic Illnesses Credit: 1
A zoonotic illness is a disease that can be transmitted from animals to humans – over 60% of all human infections are zoonotic. The purpose of this course is to increase student knowledge relative to infectious diseases caused by zoonotic transmission/pathogens. Topic discussion will include background evolution of the disease, diagnostic considerations, management, monitoring and reporting of the infectious diseases to the local health department. This course will serve to reinforce the principles of infectious diseases pharmacotherapy and further expose students to diseases encountered in rural Missouri (i.e. tick bites, farm animals). Classes are didactic in nature.

**Prerequisites:** Microbiology course from any accredited college or university.

PHARM 7279 Introductory Pharmacy Practice Experience I Credits: 0.5
This Introductory Pharmacy Practice Experience (IPPE) provides students the opportunity to develop a health profile for a patient utilizing knowledge and skills gained in the didactic curriculum. This experience involves small group instruction and guided reflection, direct patient contact, opportunities to employ and develop essential practice skills and techniques, and assessment by active participation, guided reflection, and portfolio review. This IPPE compliments didactic instruction and allows students to apply knowledge to patient care and demonstrate readiness for the next level of curricular pharmacy practice experiences.
PHARM 7280 Introductory Pharmacy Practice Experience II Credits: 0.5
This Introductory Pharmacy Practice Experience (IPPE) provides students the opportunity to develop a health profile for a patient utilizing knowledge and skills gained in the didactic curriculum. This experience involves small group instruction and guided reflection, direct patient contact, opportunities to employ and develop essential practice skills and techniques, and assessment by active participation, guided reflection, and portfolio review. This IPPE compliments didactic instruction and allows students to apply knowledge to patient care and demonstrate readiness for the next level of curricular pharmacy practice experiences.
Prerequisites: PHARM 7279.

PHARM 7289 Introduction to Complementary and Alternative Medicine Credit: 1
An elective course designed to introduce a variety of the most common complementary and alternative medicine (CAM) modalities. Each modality will be defined and explained and any clinical evidence for or against will be discussed. An important emphasis will be on how patient use of these therapies may affect their needs for medication therapy management and counseling. For example, patients who see a naturopathic physician may be more likely to use herbal therapies that may interact with their prescription medications.
Prerequisites: Good standing in the P2 Doctor of Pharmacy year; P1 students may enroll with instructor approval.

PHARM 7303 Pharmacokinetics and Biopharmaceutics Credits: 3
This course involves the study of the rates at which drug absorption, distribution, metabolism, and excretion occur in the body following medication administration. The student will be taught to calculate pharmacokinetic parameters, and then utilize those values to optimize pharmacotherapy in his/her patient. So as to promote inter-professional healthcare dialogue, this course will demonstrate how to make informed recommendations associated with both drug administration and monitoring to medical and nursing healthcare providers. Recommendations include, but are not limited to, suggesting changes in the dose, dosing frequency, infusion rate, steady-state plasma drug concentrations, ‘peak’ and ‘trough’ plasma drug concentrations, drug/drug interactions, drug/food interactions, and dosing adjustment in the context of diminished kidney or liver function.

PHARM 7307 Advanced Pathophysiology Credits: 4
Advanced pathophysiology is the study of the alterations of normal physiological functioning in cellular, tissue, organ, and organ systems. These alterations form the basis for understanding a variety of pathophysiological conditions and the manifestations and impact of abnormal physiological functioning on patients across the life span. Advanced pathophysiology deals with both generalized disease processes and major organ system dysfunction. Students will have the opportunity to identify clinical signs and symptoms for various disease states, associate the pathophysiologic abnormality responsible for the sign or symptom, and understand how drug therapy targets disease state management and treatment.
Prerequisites: LS-BIOC 370, LS-PHYS 400.

Co-requisites: PHARM 7361.

PHARM 7310 Academic Service Learning I Credit: 1
Academic Service Learning is a professional elective course where students are assigned to either an area clinic in Kansas City or the MedZou program in Columbia. A minimum of 30 contact hours must be completed during the assigned semester. Health education will be the primary focus.

PHARM 7311 Pharmacy in the 21st Century Technology Credits: 2
This course allows students to develop the skills to evaluate and use Health Care Information Technology (HCIT) in contemporary pharmacy practice. The elective course is offered in the winter semester only.
Prerequisites: Third year status or higher in the Pharm. D. program.

PHARM 7313 Career Planning Credit: 1
This course enables students to engage in the study of career opportunities in the areas of industry, hospital/clinic practice, retail and managed care settings. Pharmacy opportunities are explored through lecture and discussion, guest speakers in the various areas and student exploration with business contacts and research. Topics include understanding career opportunities, achieving one's professional goals, compensation packages and negotiations, and designing a path to accomplish career objectives.

PHARM 7316 Introduction to Pharmaceutical Policy Analysis Credits: 2
This course addresses multiple key influential pharmaceutical policy areas shaping pharmacy practice, and will teach critical thinking skills required to measure both federal and state level policy impact in patient safety and access to medications.
Prerequisites: PHARM 7151, PHARM 7325.

PHARM 7317 Drug Induced Diseases Credits: 2
Drug-induced disease is an unintended effect if a drug that results in mortality or morbidity with symptoms sufficient to prompt a patient to seek medical attention and/or require hospitalization. This course will aid students in the identification, management, and prevention of drug-induced diseases.
Prerequisites: PHARM 5519, PHARM 7307.
PHARM 7318 Introduction to Critical Care Medicine Credits: 2
Critical Care is a multidisciplinary healthcare specialty that cares for patients with acute, life-threatening illness or injury. The management of these patients requires advanced knowledge in various disease states, pathophysiological changes as a result of the illness or injury, as well as the pharmacologic agents used in their treatment. The course will serve as an introduction to Critical Care medicine and will allow students to gain exposure to all that encompasses caring for the critically ill. It will not only focus on specific disease states, but also delve into the negative outcomes associated with such illnesses and provide an introduction to both medical and pharmacologic management of them. The course is not meant to provide students with a comprehensive review but rather provide a glimpse into the specialty of Critical Care Medicine.
Prerequisites: Successful completion of all pharmacy didactic and experiential courses through semester four.

PHARM 7324 Medication Management in Transitions of Care Credit: 1
Transitions of care is an important aspect of patient care in all pharmacy practice settings. The pharmacist plays a crucial role in medication management during the transitions of care process. The purpose of this course is to increase student knowledge and skills relative to the pharmacist's role in transitions of care. Students will learn strategies to effectively develop and implement pharmacy-led transitions of care services in various healthcare settings.
Prerequisites: Pharm 7414, Pharm 7414L.

PHARM 7325 Patient Assessment and Professional Communication Credits: 2
In this course, students will continue developing necessary skills to provide patient-centered care. Students will be introduced to health informatics and an electronic medical record. Students will be taught the four components of a SOAP note, a method of documentation used by healthcare providers. Students will learn how to physically assess patients and document findings in SOAP format in a patient’s record. Students will also learn how to effectively communicate with other healthcare professionals and document the interactions.
Prerequisites: PHARM 7101, PHARM 7414.

Co-requisites: PHARM 7325L.

PHARM 7325L Applied Skills Lab: Patient Assessment and Professional Communication Credits: 0.5
This applied skills lab is associated with the Patient Assessment and Professional Communication course. Learning activities are designed to complement didactic instruction while allowing students to apply knowledge in a simulated environment. Students are expected to perform physical assessments on each other while under supervision and document patient information accurately and periodically within the electronic medical record system. Student achievement of core abilities will be assessed through an Objective Structured Clinical Examination. One 2-hour lab session is held every other week or weekly but no more than 10 sessions per semester.
Prerequisites: PHARM 7101, PHARM 7414.

Co-requisites: PHARM 7325.

PHARM 7326 Evidence Based Medicine Credits: 5
Pharmacists, if they are to assume the role of “medication expert,” must learn how to integrate existing drug information using rigorous problem-solving tools that deliver efficient and safe decision making that benefits patients, consumers and other healthcare providers. This course provides students with an evidenced-based, disciplined approach to evaluate literature from multiple sources in a critical manner in order to make complex healthcare-related patient/population recommendations and decisions. Application of key EBM concepts incorporates lectures, interactive labs, self-study tutorials, facilitated/online retrieval of activities and traditional assessments.
Prerequisites: PHARM 7325, PHARM 7405.

Co-requisites: PHARM 7420.

PHARM 7331L Applied Skills Lab: Aseptic Technique and Sterile Product Prep Credits: 0.5
This half credit hour course introduces students to the regulations and proper practice of sterile compounding and focuses on development and assessment of aseptic technique skills used in the preparation of parenteral admixtures and injections. The course uses in-class and prerecorded video instruction, small-group demonstration and instruction, instructor-guided practice, and assessment of skills. The knowledge and skills obtained in this course prepare students for the hospital-based Introductory Pharmacy Practice Experience (IPPE).
Prerequisites: Successful completion of prior professional program coursework and OSHA Bloodborne Pathogen Safety Training.

PHARM 7334 Pharmacy Based Immunization Delivery Credit: 1
Pharmacy-based Immunization Delivery is an interactive training program that teaches pharmacists and student pharmacists the skills necessary to become a primary source for vaccine information and administration. The program teaches the basics of immunology and focuses on practice implementation, administration technique (pk) and legal/regulatory issues.

PHARM 7339 Business Plan and Entrepreneurship in Community Pharmacy Credits: 2
Business Plan and Entrepreneurship in Community Pharmacy course is designed to provide an opportunity for students enrolled in the School of Pharmacy to further explore business plan development and entrepreneurship in the community pharmacy setting. Upon course completion, the student will be able to understand and complete the necessary components of a full business plan and proposal that involves innovation and creativity in pharmacy practice. Students are expected to participate in a team approach to delegate all aspects of the business plan, as well as participate in classroom activities and discussions of innovative practice. Prerequisites: PHARM 7101, PHARM 7151, PHARM 7233, PHARM 7414, PHARM 7414L, PHARM 7279, PHARM 7465.
PHARM 7341 Medicinal Chemistry I Credits: 3
This course is the study of medicinally active substances, both natural and synthetic, which describes their chemical properties, their mode of action, their structure-activity relationships and their metabolic rate. Starting with their origin, it is shown how drugs in a series are developed by chemical modification, quantitative structure activity relationships and receptor theory. The chemical properties of a drug are described and explained. The mode of action of the drug is explained on a biochemical basis whenever possible. Once a drug has had its medicinal effect, it is excreted or metabolized. Reasons for excretion or metabolism are explained.
Prerequisites: CHEM 322R.

PHARM 7344 Medicinal Chemistry II Credits: 3
This course is a continuation of PHARM 7341. This course will focus on major drug classes, both natural and synthetic, including their chemical properties, their mode of action, their structure-activity relationships and their metabolic fate. Structure-activity relationships and the influence of organic functional groups on physicochemical properties of drugs and their pharmacological activities will be emphasized. Drug metabolism will also be covered, with a focus on organic functional group transformations.
Prerequisites: PHARM 7341.

PHARM 7345 Top Drugs II Credit: 1
This 1.0 hour course is designed as an introduction to up to 300 of the most commonly prescribed medications. This course will provide students with the opportunity to learn basic drug knowledge including brand (trade) and generic names, narcotic class, therapeutic class, common dosage forms, and FDA approved indications, dosing, pharmacology/pharmacokinetics, drug interactions, contraindications/precautions, and adverse effects.

PHARM 7353 Investigative Toxicology Credits: 2
The science of investigative toxicology is an emerging science that plays a central role in forensic toxicology and pathology regarding conditions of and for exposure of many different kinds of environmental, biological, chemical, or physical agents. Investigative toxicology may include criminal or civil legal matters. The duties of an investigative toxicologist include the qualitative and quantitative analysis of drugs or poisons in biological systems and other physical evidence collected at the scene of the investigation. This also includes the interpretation of the exposure scene evidence and findings in regard to the physiologic and behavioral effect of those exposed to the detected/suspected chemical(s) at time of exposure. The complete investigation of the cause or causes of sudden or chronic chemical exposure and its potential aftermath is an important civic responsibility. The use of toxicologic information in investigation assessment requires careful field and laboratory analysis, evaluation of data.

PHARM 7361 Pharmacology I Credits: 2
Basic pharmacological principles of drug absorption, distribution, metabolism and elimination; concept of drug-receptor interactions; dose-response relationships and mechanism of action; and signaling mechanisms.
Prerequisites: Successful completion of prior professional program coursework or course coordinator’s permission.
Cross Listings: PHARM 5519.

PHARM 7362 Pharmacology II Credits: 4
Principles of and advances in chemotherapy, biology, mechanism of action; clinical applications and adverse effects of various drug groups.
Prerequisites: Successful completion of prior professional program coursework or course coordinator’s permission.
Cross Listings: PHARM 5520.

PHARM 7363 Pharmacology III Credits: 4
Mechanism of action; therapeutic uses; and adverse effects of drugs affecting different organ systems.
Prerequisites: Successful completion of prior professional program coursework or course coordinator’s permission.
Cross Listings: PHARM 5530

PHARM 7364 Concepts of Epidemiology and Statistics In Research Credits: 3
This course introduces students to study design, principles, concepts, and application of epidemiological and statistical methods in research. First part of the course will cover understanding the epidemiological principle, measuring the occurrence of disease, measures of disease association, and types of study designs, interpretation and evaluation of epidemiologic research. Second part will provide hands-on experience for students on developing skills to analyze research data using appropriate statistical methods by means of statistical software to calculate the measures of disease association. This course will help students to evaluate health care studies with respect to study design, statistical analysis, interpretation, and evidences of association. During this course students will develop an epidemiologic study proposal. Students will learn to analyze and interpret the output of these analyses using the Statistical Package for the Social Science (SPSS).
Prerequisites: STAT 436 (or equivalent).

PHARM 7366 Oncology and Hematology Pharmacotherapy Credits: 3
This course provides disease-oriented and pharmacy-oriented insight into the pathophysiology, diagnosis, and rational drug treatment of malignancy. The pharmacist’s role in selecting drug products, individualizing dosages, supportive care, and monitoring patients is emphasized, with additional emphasis on safety and handling.
Prerequisites: PHARM 7361, PHARM 7420.
PHARM 7377 Principles of Nutrition Support Credits: 2
Clinical nutrition, a multidisciplinary field, has become an important practice area for the hospital pharmacist. Its growth has been the result of an awareness of the high incidence of malnutrition among hospitalized patients and its effects on morbidity and mortality. Nutrition support is an important therapy provided to patients in the acute care, home care and long term care settings. This course will introduce the student to the fundamentals of nutrition support and prepare him/her for future involvement in this important practice area.

PHARM 7378 Introduction to Community Pharmacy Practice Credits: 2
This course is a required Introductory Pharmacy Practice Experience (IPPE) in which students will spend two weeks during the summer after their third professional year providing patient-centered care in a community pharmacy practice setting. The experience will emphasize application of knowledge gained in didactic coursework at the student's level in the curriculum. Activities focus on the delivery of care to patients rather than relying on a product-centered model of practice. The Introductory Pharmacy Practice Experiences seek to establish a solid practice foundation on which students will continually build as they progress through the Doctor of Pharmacy curriculum. Successful completion of prior professional program coursework and submission of required Experiential Programs documentation.

PHARM 7379 Introduction to Health Systems Pharmacy Practice Credits: 2
This course is a required Introductory Pharmacy Practice Experience (IPPE) in which students will spend two weeks during the summer after their third year providing patient-centered care in a health systems pharmacy practice setting. The experience will emphasize application of knowledge gained in didactic coursework at the student's level in the curriculum. Activities focus on understanding the medication use system and delivering care to patients in a hospital setting. The Introductory Pharmacy Practice Experiences seek to establish a solid practice foundation on which students will continually build as they progress through the Doctor of Pharmacy curriculum. Successful completion of prior professional program coursework and submission of required Experiential Programs documentation.

PHARM 7389 Advances In Drug Therapy Credits: 2
Study of the advances in drug delivery and therapy: the concepts of advanced and novel drug delivery systems, modern drug analysis tools, role of efflux protein in drug kinetics, and transporter/receptor mediated drug delivery. 
Prerequisites: Pharmacology I

PHARM 7397 Home Health Care Credits: 2
Anything a patient does in the home concerning their healthcare is considered Home Health Care. All aspects of Home Health Care are covered in this class. Diabetic Ostomy products care, Durable Medical Equipment (Wheelchair, cane, crutches, etc.), home Renal Dialysis, Wound Care, Respiratory Therapy, IV accesses, Home Infusion Therapy, Hospice Care, and Enteral Nutrition are presented and discussed. Reimbursement issues are not discussed due to constantly changing regulations. This is a "hands-on" class with participation in, for example, ostomy fitting, crutches fitting, enteral nutrition taste testing, and a tour of a Home Infusion Pharmacy. 
Prerequisites: PHARM 7362, PHARM 7405.

Co-requisites: PHARM 7420.

PHARM 7398 Comprehensive Diabetes Management Credits: 4
The purpose of the course is to provide the student with a multidisciplinary foundation in the principles of diabetes management. The student will develop his/her knowledge and ability to assess, manage, educate and monitor patients with diabetes. The faculty are comprised of a multidisciplinary team of experts for the online lectures. The in-class discussion will be led by a faculty member who specializes in diabetes management. 
Prerequisites: Pharmacology I

PHARM 7399 Required Enrollment Credit: 1
Required enrollment for international students in pharmacy training sites.

PHARM 7405 Self-Care and Nonprescription Pharmacotherapy I Credits: 3
The Self-Care and Nonprescription Pharmacotherapy course integrates the fundamentals of pathophysiology and pharmacology to help develop the student's ability to provide patient-centered care. Upon course completion, students will be able to assess and provide pharmaceutical care for patients with illnesses commonly encountered in community pharmacy practice. Students are expected to identify medical and medication-related problems, recommend nonprescription drug therapy and monitor for safe and effective drug use. Students are also expected to provide accurate medication counseling. In general, two hours per week are devoted for traditional didactic teaching and learning and two hours for laboratory experiences. 
Prerequisites: PHARM 7279, PHARM 7307, PHARM 7325, PHARM 7361, PHARM 7414.

Co-requisites: PHARM 7405L

PHARM 7405L Applied Skills Lab: Self-Care and Nonprescription Pharmacotherapy I Credits: 0.5
Students enrolled in this applied pharmacotherapy lab will gain skills necessary to provide care for patients with illnesses commonly encountered in community practice. Learning activities are designed to complement didactic instruction while allowing students to apply knowledge in a simulated environment. Students will be afforded opportunities to provide patient-centered care utilizing the QuEST/SCHOLAR MAC process. Student achievement of core abilities will be assessed through an Objective Structured Clinical Examination. 
Prerequisites: PHARM 7279, PHARM 7307, PHARM 7325, PHARM 7361, PHARM 7414.

Co-requisites: PHARM 7405.
PHARM 7406P IPPE: General Medicine I Credits: 2
This course is a required Introductory Pharmacy Practice Experience (IPPE) which provides a continuum of patient care activities throughout the third professional year. The students will spend one academic year (Fall and Spring Semesters) in a patient care setting. Emphasis of study will be on the care of patients with commonly seen illnesses. Students are expected to become involved in the provision of direct patient care and improving rational drug therapy in a practice environment.
Prerequisites: PHARM 7420, PHARM 7485P.

PHARM 7407P APPE Patient Care Selective Credits: 4
The student will spend one month actively participating in the delivery of direct patient care in an interprofessional practice setting where there are ongoing clinical pharmacy services. Students will take part in rounds, conferences, consultations and other activities as directed by the faculty preceptor. Faculty preceptors may add site-specific objectives as indicated.
Prerequisites: Successful completion of all pharmacy non-credit requirements and all didactic and experiential pharmacy coursework through semester six.

PHARM 7409P APPE Health Systems Credits: 4
The student will spend one month assigned to a health system site. Emphasis of study will be on the pharmacy systems of hospital/health systems, medication safety and quality, and professional practice. Clinical applications will be maintained throughout the rotation. Students will take part in department activities to enhance understanding of the integration of all aspects of patient-centered care within the department and other services in the facility/health system. Faculty preceptors may add site-specific objectives as indicated.
Prerequisites: Successful completion of all pharmacy non-credit requirements and all didactic and experiential pharmacy coursework through semester six.

PHARM 7410P APPE Ambulatory Patient Care Credits: 4
The student will spend one month actively participating in the delivery of direct patient care in an interprofessional ambulatory patient care practice setting where there is an ongoing program of clinical pharmacy services. Students will take part in rounds, conferences, consultations and other activities as directed by the faculty preceptor. Faculty preceptors may add site-specific objectives as indicated.
Prerequisites: Successful completion of all pharmacy non-credit requirements and all didactic and experiential coursework through semester six.

PHARM 7412P APPE Advanced Community Pharmacy Credits: 4
The student will spend one month in a progressive community pharmacy setting. Emphasis of study will be on the clinical aspects of providing comprehensive patient care services to diverse patient populations in a community practice. Patient-centered care activities will be emphasized throughout the rotation. Students will take part in all aspects of patient care within the practice. Faculty preceptors may add site-specific objectives as indicated.
Prerequisites: Successful completion of all pharmacy non-credit requirements and all didactic and experiential pharmacy coursework through semester six.

PHARM 7414 Patient-Centered Care and Ethical Practice Credits: 2
Students will understand the concept as well as the pharmacist’s role in providing patient-centered care. Students will learn how to build relationships through consideration of the patient’s personal values, preferences and beliefs. Students will learn how to effectively communicate with patients to obtain health and medication histories and to counsel for medication adherence. Drug knowledge for the most commonly prescribed medications will be learned, assessed and applied throughout this course and the associated applied skills lab (7414L). One 2-hour class session is held per week.
Prerequisites: PHARM 7101.

Co-requisites: PHARM 7414L.

PHARM 7414L Applied Skills Lab: Patient-Centered Care and Ethical Practice Credits: 0.5
This applied skills lab is associated with the Patient-Centered Care and Ethical Practice course. Learning activities are designed to complement didactic instruction while allowing students to apply knowledge to patient care in a simulated environment. Students will be afforded opportunities to obtain accurate and comprehensive health and medication histories and provide basic medication counseling. Student achievement of core abilities will be assessed through an Objective Structured Clinical Examination. One 2-hour lab session is held every other week.
Prerequisites: PHARM 7101.

Co-requisites: PHARM 7414.

PHARM 7418P APPE Elective I Credits: 4
Elective experiences give students the opportunity to mature professionally, secure the breadth and depth of experiences needed to achieve curricular outcomes, and explore various sectors of practice. Students may repeat required rotations as electives if space is available or may approach a preceptor to tailor an elective experience to develop an area of interest. Faculty preceptors may add site-specific objectives as indicated. Electives may include a maximum of two experiences without a patient care focus.
Prerequisites: Successful completion of all pharmacy required non-credit requirements and all didactic and experiential pharmacy coursework through semester six.
PHARM 7419P APPE Acute Patient Care Credits: 4
The student will spend one month actively participating in the delivery of direct patient care in an interprofessional acute practice setting where there are ongoing clinical pharmacy services. Students will take part in rounds, conferences, consultations and other activities as directed by the faculty preceptor. Faculty preceptors may add site-specific objectives as indicated. 
**Prerequisites:** Successful completion of all pharmacy non-credit requirements and all didactic and experiential pharmacy coursework through semester six.

PHARM 7420 Pharmacotherapy II Credits: 7
Pharmacotherapy II is designed to develop the student’s ability to assess patients and provide pharmaceutical care. The course focuses on developing and applying problem-solving strategies for complex illnesses commonly encountered in pharmacy practice. Students are expected to identify medical and medication-related problems, recommend drug therapy and monitor for safe and effective drug use. Students are also expected to provide medication counseling. Throughout the semester, students are expected to retrieve and utilize relevant patient data from an electronic medical record system to make patient care decisions. Six hours of large group and two hours of small group discussions occur weekly. 
**Prerequisites:** PHARM 7279, PHARM 7280, PHARM 7307, PHARM 7325, PHARM 7361, PHARM 7362, PHARM 7405, PHARM 7414.

Co-requisites: PHARM 7420L, PHARM 7406P.

PHARM 7420L Applied Skills Lab: Pharmacotherapy II Credits: 0.5
Students enrolled in this applied pharmacotherapy lab will gain skills necessary to provide care for patients with illnesses commonly encountered in pharmacy practice. Learning activities are designed to complement didactic instruction while allowing students to apply knowledge in a simulated environment. Students will be afforded opportunities to utilize home diagnostic and monitoring tests, conduct brown bag reviews, provide medication reconciliation and therapeutically manage patients at a distance (telepharmacy). Student achievement of core abilities will be assessed through an Objective Structured Clinical Examination. 
**Prerequisites:** PHARM 7279, PHARM 7280, PHARM 7307, PHARM 7325, PHARM 7361, PHARM 7362, PHARM 7405, PHARM 7414.

Co-requisites: PHARM 7420, PHARM 7406P.

PHARM 7421P APPE Elective III Credits: 4
Elective experiences give students the opportunity to mature professionally, secure the breadth and depth of experiences needed to achieve curricular outcomes, and explore various sectors of practice. Students may repeat required rotations as electives if space is available or may approach a preceptor to tailor an elective experience to develop an area of interest. Faculty preceptors may add site-specific objectives as indicated. Electives may include a maximum of two experiences without a patient care focus. 
**Prerequisites:** Successful completion of all pharmacy non-credit requirements and all didactic and experiential pharmacy coursework through semester six.

PHARM 7422P APPE Elective IV Credits: 4
Elective experiences give students the opportunity to mature professionally, secure the breadth and depth of experiences needed to achieve curricular outcomes, and explore various sectors of practice. Students may repeat required rotations as electives if space is available or may approach a preceptor to tailor an elective experience to develop an area of interest. Faculty preceptors may add site-specific objectives as indicated. Electives may include a maximum of two experiences without a patient care focus. 
**Prerequisites:** Successful completion of all pharmacy non-credit requirements and all didactic and experiential pharmacy coursework through semester six.

PHARM 7424 Introduction To Dietary Supplement Therapeutics Credits: 2
This course is intended to provide students with an awareness of important issues about dietary supplements to consider when providing pharmaceutical care to patients. Students will become familiar with regulations for dietary supplements, learn communication skills specific to discussing supplement use with patients, and the skills to retrieve and interpret reliable information to be able to make decisions about new or unfamiliar supplements. 
**Prerequisites:** PHARM 7361.

PHARM 7427 Hospital Pharmacy Credits: 2
This course in Hospital Pharmacy is designed to expose students to the daily operation of a typical hospital pharmacy, integration of informatics and automation, and understanding of historical concepts in hospital pharmacy management. The course consists of one, two-hour lecture per week. The course will be delivered via traditional didactic lecture format and interactive group discussions.
PHARM 7434 Pharmacy Preparations: Compounding Credit: 1
In the Pharmacy Preparations: Compounding Course, students will gain knowledge and skills necessary to compound extemporaneous non-sterile preparations. The course will cover regulations governing pharmaceutical compounding in Missouri, ethical considerations applicable to compounds, various dosage forms including advantages and disadvantages of each, techniques used in preparing compounds, and the counseling information to be included for each type of dosage form covered in the course. Students will utilize their knowledge of pharmaceutical calculations in the preparation of the formulations such as calculating doses and ingredient quantities.
Prerequisites: PHARM 7110.

Co-requisites: PHARM 7434L.

PHARM 7434L Applied Skills Lab: Pharmacy Preparations: Compounding Credit: 1
Students enrolled in this compounding lab will apply knowledge gained in the associated course necessary to compound extemporaneous non-sterile preparations. Students are expected to accurately prepare, dispense, and label a variety of the most commonly prescribed extemporaneous formulations, including liquid, solid, semi-solid, and topical preparations.
Prerequisites: PHARM 7110.

Co-requisites: PHARM 7434.

PHARM 7439 Pediatric Pharmacotherapy Credits: 3
Pediatric Pharmacotherapy provides disease-oriented and pharmacy-oriented insight into the pathophysiology, diagnosis, and rational drug treatment of diseases primarily encountered in the pediatric population. The pharmacist’s role in selecting drug products, individualizing dosages, and monitoring patients is emphasized.
Prerequisites: PHARM 7361, PHARM 7362, PHARM 7420.

PHARM 7451 Pharmacy Law Credit: 1
State laws impacting pharmacy practice.
Prerequisites: PHARM 7151.

PHARM 7463 Toxicology Credits: 2
Fundamentals of toxicology, including discussion of the general classes of poisonous substances, their physiological effects, and methods of treatment.
Prerequisites: Successful completion of prior professional program coursework or course coordinator’s permission.

Cross Listings: PHARM 5509.

PHARM 7465 Health Economics and Medicine Credits: 3
This course introduces major economic dimensions of healthcare system and public health practices. Covers concepts necessary to understand provider and consumer behavior, health care market structure, government involvement in health care, reimbursement strategy, determinants of health, distribution channels for biopharmaceuticals, pharmacovigilance, economic evaluation of healthcare services, and comparative-effectiveness research.
Prerequisites: PHARM 7233.

PHARM 7466 Pharmacy Practice Leadership, Management, and Innovation Credits: 3
Pharmacy Practice Leadership, Management, and Innovation is a required course for the Doctor of Pharmacy degree program. The goals of the course are to teach basic leadership and management principles and apply them to pharmacy practice in a variety of situations and settings. Leadership principles are related to broad personal and organizational missions and visions. Management principles are related to operational details of managing human resources, inventory, and finances. In order to achieve these goals, this course will review specific topics, including but not limited to, leadership and professional development, entrepreneurship, operations management, application of reimbursement mechanisms, pay-for-performance, and innovative pharmacist services. Pharmacists need to understand these principles and applications as a means of providing optimum care for patients, especially when pharmacists emerge as important contributors to the future of the U.S. health care system.
Prerequisites: PHARM 7465.

PHARM 7467 Religion, Culture and Health Credits: 3
This course addresses the impact of religious beliefs, education, and cultural practices on health and healthcare issues pertinent to various segments of our society.

PHARM 7484P Pharmacy Seminar Credit: 1
Pharm. D. Student Seminar course is designed to provide students with examples and reasoning behind the fundamentals of seminar preparation and delivery and opportunity to utilize their knowledge by presenting a seminar. This experience will be achieved through identification of a topic, development and presentation of a seminar. The student is expected to complete two 40-minute seminars over two semesters.
Prerequisites: PHARM 7485P.
PHARM 7485L Applied Skills Lab: Pharmacotherapy III Credits: 0.5
Students enrolled in this applied pharmacotherapy lab will gain skills necessary to provide care for patients with illnesses commonly encountered in pharmacy practice. Learning activities are designed to complement didactic instruction while allowing students to apply knowledge in a simulated environment. Students will be afforded opportunities to provide pharmacy services, including but not limited to, Medication Therapy Management, therapeutic Drug Utilization Review, Patient Centered Medical Home and telepharmacy. Multiple activities will incorporate concepts of interprofessional team-based care. Student achievement of core abilities will be assessed through an Objective Structured Clinical Examination.
Prerequisites: PHARM 7279, PHARM 7280, PHARM 7307, PHARM 7325, PHARM 7361, PHARM 7362, PHARM 7405, PHARM 7414, PHARM 7420.
Co-requisites: PHARM 7485P, PHARM 7406P.

PHARM 7485P Pharmacotherapy III Credits: 7
Students enrolled in the Pharmacotherapy III course will continue developing and applying problem-solving strategies to complex illnesses commonly encountered in pharmacy practice. Students are expected to identify medical and medication-related problems, recommend drug therapy and monitor for safe and effective drug use. Students are also expected to provide medication counseling. Throughout the semester, students are expected to retrieve and utilize relevant patient data from an electronic medical record system to make patient care decisions. Six hours of large group and two hours of small group discussions occur weekly.
Prerequisites: PHARM 7279, PHARM 7280, PHARM 7307, PHARM 7325, PHARM 7361, PHARM 7362, PHARM 7405, PHARM 7414, PHARM 7420.
Co-requisites: PHARM 7485L, PHARM 7406P.

PHARM 7489AB Introduction to Nuclear Pharmacy & Nuclear Medicine Credits: 2
Nuclear pharmacy employs the safe and effective use of radiopharmaceuticals and other drugs with the purpose of improving patient health. The purpose of this course is to educate students regarding the diagnostic and therapeutic roles of radiopharmaceuticals in healthcare and teach the proper procedures and techniques that go into safely compounding and handling these products. Students will visit Cardinal Health Nuclear Pharmacy where they will be able to demonstrate the techniques they have learned. Students will attend four two-hour lectures and have the opportunity to witness the utilization of a radiopharmaceutical during a diagnostic scan at Truman Medical Center.

PHARM 7489CC Special Topics-Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489CE Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489E Special Topics In Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topic, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489EB Special Topics Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489EF Special Topics Pharmacy Credits: 1-5
PHARM 7489EP Special Topics Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489EPA Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489FD Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489HN Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489ME Special Topics Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.
PHARM 7489MG Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489MN Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489MU Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489N Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489NS Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489O Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings.

PHARM 7489OTC Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings.

PHARM 7489PE Special Topics in Pharmacy Credits: 1-5
Special Topics in Pharmacy

PHARM 7489PH Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489PT Special Topics in Pharmacy Credits: 1-5

PHARM 7489R Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489RB Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7489SI Special Topics in Pharmacy Credits: 1-5
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

PHARM 7497E Directed Individual Study-Clinical Pharmacy Credits: 1-4
Study in areas of special interest under individual faculty direction. Elective. Not to exceed five semester credits.

Philosophy (PHILOS)

Courses

PHILOS 5521 Managerial And Administrative Decision Making And Ethical Values Credits: 3
Methods of problem definition and decision making in ethics are presented with the goal of providing the student with a matrix for case review. A series of cases is offered that serve to integrate approaches to ethical reflection with management and administrative decision making. Cases are chosen on the basis of topical, curricular and conceptual relevance.

PHILOS 5540 Seminar On Philosophy And Law Credits: 2
An examination from a philosophical perspective of the historical and conceptual relationships present in the evolution, development and analysis of law. Among the systems of analysis examined will be natural law theory, legal positivism and legal realism. Ordinarily the seminar will focus on a specific area of controversy in the law.

PHILOS 5546 Ethics And Government Credits: 3
An examination of ethical issues related to government, with the primary focus on national and local governmental bodies in the United States. Ethics in the executive, legislative and judicial branches are examined. Ethical standards for elected officials and appointed public servants are reviewed. Attempts to "legislate morality" are considered. The course includes a historical review of ethics and government and an analysis of the legal implications of legislation regarding ethics in the executive branch.
PHILOS 5550 History and Philosophy of Bioethics Credits: 3
This course will provide an overview of the history of medicine and bioethics from antiquity to the present. In addition to key historical events, the course will provide an overview of foundational ethical theories. The course will explore key events in bioethics and the responses to them in the bioethics literature.

PHILOS 5551 Healthcare Law and Policy Credits: 3
This course will focus on basic issues in healthcare law and public policy. Issues such as confidentiality, informed consent, healthcare financing, and end-of-life decision making will be covered. In addition to key historical events, the course will provide an overview of foundational ethical theories. The course will explore key events in bioethics and the responses to them in the bioethics literature.

PHILOS 5552 Clinical Ethics and Case Consultation Credits: 3
This course will focus on classic cases in bioethics and will expose students to contemporary trends in healthcare ethics consultation.

PHILOS 5620 Descartes To Hume Credits: 3
PHILOS 5625 Aesthetics Credits: 3
PHILOS 5638 Philosophy Of Biology Credits: 3
PHILOS 5640 Philosophy Of Law Credits: 3
PHILOS 5690 Research In Selected Fields: Graduate Studies Credits: 3
Intensive research in an area selected by the student in consultation with the instructor. By permission only. May be repeated for credit when the topic varies.

**Physical Education (PHYS-ED)**

**Courses**

PHYS-ED 5530 Organization And Administration Of Athletics Credits: 3
Organization and management of a program of competitive athletics for schools and colleges.

PHYS-ED 5561 Social-Cultural Aspects of Sport and Physical Activity Credits: 3
The social significance of sport in modern societies. Research on the social structure, social relations and social problems of sport from several subcultural perspectives will be reviewed.

PHYS-ED 5570 Sport Psychology Credits: 3
Analysis of research and theory focused on the psychological aspects associated with participation in sport and physical activity.

Prerequisites: PHYS-ED 370.

**Physician Assistant Program (MEDPA)**

**Courses**

MEDPA 5501 Anatomy for the Physician Assistant Credits: 3
This course studies the anatomy of the human body and its correlation and relationship of anatomic configuration to diagnosis of clinical problems.

MEDPA 5502 Foundations in Basic Medical Science Credits: 4
This course introduces the basic principles of biochemistry, microbiology, immunology, and pharmacology which prepares the student for Science and Practice of Medicine I - IV.

Prerequisites: Limited to MMSPA students.

MEDPA 5503 Research Applications in Medicine Credit: 1
This course introduces the student to clinical research in medicine and its application to clinical decision making through the concepts and principles of evidence-based medicine.

MEDPA 5504 Ethics, Law and Policy Credit: 1
This course examines ethical rules, principles, and theories as they relate to health care.

MEDPA 5505 Clinical Assessment for the PA Credits: 2
This course will focus on developing foundational physical exam and history taking skills for the physician assistant.

MEDPA 5511 Clinical Practicum I Credit: 1
The Clinical Practicum course series will develop professional behaviors, reinforce effective communication with classmates, patients and preceptors, introduce patient safety concepts and give the student clinical experience under preceptor supervision to develop and apply the skills learned in the curriculum.
MEDPA 5512 Clinical Practicum II Credit: 1
This course will consist of a variety of activities including lectures, clinical exposure, interprofessional education activities, service learning, and community health experiences. Emphasis will be on developing communication skills, exhibiting professional behaviors, recognizing diversity and needs of the community, and identifying attributes of a health care team.
Prerequisites: MEDPA 5511.

MEDPA 5513 Clinical Practicum III Credit: 1
This course will consist of a variety of activities including lectures, clinical exposure, interprofessional education activities, service learning, and community health experiences. Emphasis will be on developing communication skills, exhibiting professional behaviors, recognizing diversity and needs of the community, and identifying attributes of a health care team.
Prerequisites: MEDPA 5512.

MEDPA 5514 Clinical Practicum IV Credit: 1
This course will consist of a variety of activities including lectures, clinical exposure, interprofessional education activities, service learning, and community health experiences. Emphasis will be on developing communication skills, exhibiting professional behaviors, recognizing diversity and needs of the community, and identifying attributes of a health care team.
Prerequisites: MEDPA 5513.

MEDPA 5521 PA Professions I Credit: 1
This course in the PA Professions series that will focus on the history of the PA profession including the social, regulatory, ethical and professional aspects. Instruction will also be provided in clinical management practices and procedures including coding systems for diagnosis and reimbursement, quality assurance and risk management.

MEDPA 5522 PA Professions II Credit: 1
This course focuses on the impact of racial, ethnic and socioeconomic health disparities on health care delivery. The student will become aware of differing health beliefs, values and expectations of patients and other health care professionals that can affect communication, decision-making, compliance and health outcomes.

MEDPA 5523 PA Professions III Credit: 1
This course in the PA Professions series will provide basic doctrines and principles of the law to serve as a foundation for legally and ethically sound medical practice. It will include a comprehensive coverage of the history of legal medicine in the United States, the dynamics of the law applied to medical issues and the recent developments in health care delivery and biomedical issues. The legal and ethical issues of narrative medicine in medical practice and its practical applications will be explored and discussed.

MEDPA 5524 PA Professions IV Credit: 1
This course in the PA Professions will give students knowledge of the evolution of the health care industry's components and describe the technical, economic, political and social forces that shaped their development. Principles of health policy and public health will be discussed so the student will have a systematic way of thinking about health care in the United States, its problems and the alternatives for managing these problems.

MEDPA 5531 Science and Practice of Medicine I Credits: 9
This is a first of four series course that will address the physiology, pathophysiology, basic medical science, clinical presentation, pharmacotherapeutics, physical exam and clinical skills of disease processes presented in a systems format.

MEDPA 5532 Science and Practice of Medicine II Credits: 12
This is the second of a four series course that will address the physiology, pathophysiology, basic medical science, clinical presentation, pharmacotherapeutics, physical exam and clinical skills of disease processes presented in a systems format.
Prerequisites: MEDPA 5531.

MEDPA 5533 Science and Practice of Medicine III Credits: 20
This is the third of a four series course that will address the physiology, pathophysiology, basic medical science, clinical presentation, pharmacotherapeutics, physical exam and clinical skills of disease processes presented in a systems format.
Prerequisites: MEDPA 5532.

MEDPA 5534 Science and Practice of Medicine IV Credits: 19
This is the fourth in a four series course that will address the physiology, pathophysiology, basic medical science, clinical presentation, pharmacotherapeutics, physical exam and clinical skills of disease processes presented in a systems format.
Prerequisites: MEDPA 5533.

MEDPA 5580 Senior Seminar Credit: 1
This course will focus on discussion, study, and review of previously covered health topics in preparation for the Physician Assistant National Certification Exam (PANCE).
MEDPA 5581 Professional Development for the PA Credits: 0.5
This course focuses on professional development topics for the graduating PA students. Students attend and participate in seminars and discussions pertinent to employment and practice as a PA. Students enroll in the course each of the three semesters that make up the program clinical phase (semesters 5, 6, and 7).
**Prerequisite:** Must be a student in the MMS Physician Assistant program.

MEDPA 5589 Special Topics Credits: 1-3
An opportunity to explore in depth topics not included in usual course offerings. One or more topics will be announced in advance of registration.

MEDPA 5595 Capstone Credit: 1
This course will align didactic, clinical and professional instruction as well as Graduate Learning Competencies into a project that will have lasting impact for patients, clinical practice, PA education and/or the PA profession.

MEDPA 5610 Family Medicine I Rotation Credits: 4
This is a required 4-week rotation in an ambulatory family medicine setting.

MEDPA 5611 Family Medicine II Rotation Credits: 4
This is a required 4-week rotation in an ambulatory family medicine setting.

MEDPA 5612 Elective Family Medicine Rotation - 4 week Credits: 4
This is an elective 4-week rotation in an ambulatory family medicine setting.

MEDPA 5613 Elective Family Medicine Rotation II - 4 week Credits: 4
This is an elective 4-week rotation in an ambulatory family medicine setting.

MEDPA 5614 Elective Family Medicine Rotation I-2 week Credits: 2
This is an elective 2-week rotation in an ambulatory family medicine setting.

MEDPA 5615 Elective Family Medicine Rotation II - 2 week Credits: 2
This is an elective 2-week rotation in an ambulatory family medicine setting.

MEDPA 5620 Internal Medicine Rotation I Credits: 4
This is a required 4-week rotation in inpatient and/or outpatient adult medicine setting.

MEDPA 5621 Internal Medicine Rotation II Credits: 4
This is a required 4-week rotation in inpatient and/or outpatient adult medicine setting.

MEDPA 5622 Elective Internal Medicine Rotation I Credits: 4
This is an elective 4-week rotation in inpatient and/or outpatient adult medicine setting.

MEDPA 5623 Elective Internal Medicine Rotation II Credits: 4
This is an elective 4-week rotation in inpatient and/or outpatient adult medicine setting.

MEDPA 5624 Elective Internal Medicine Rotation I - 2 week Credits: 2
This is an elective 2-week rotation in inpatient and/or outpatient adult medicine setting.

MEDPA 5625 Elective Internal Medicine Rotation II - 2 week Credits: 2
This is an elective 2-week rotation in inpatient and/or outpatient adult medicine setting.

MEDPA 5630 Emergency Medicine Rotation Credits: 4
This is a required 4-week rotation in an emergency medicine setting.

MEDPA 5632 Elective Emergency Medicine I - 4 week Credits: 4
This is an elective 4-week rotation in the emergency medicine setting.

MEDPA 5633 Elective Emergency Medicine II - 4 week Credits: 4
This is an elective 4-week rotation in the emergency medicine setting.

MEDPA 5634 Elective Emergency Medicine I - 2 week Credits: 2
This is an elective 2-week rotation in the emergency medicine setting.

MEDPA 5635 Elective Emergency Medicine II - 2 week Credits: 2
This is an elective 2-week rotation in the emergency medicine setting.

MEDPA 5640 Women's Health Rotation Credits: 4
This is a required 4-week rotation in a women's health setting.

MEDPA 5642 Elective Women's Health Rotation I - 4 week Credits: 4
This is an elective 4-week rotation in a women's health setting.

MEDPA 5643 Elective Women's Health Rotation II - 4 week Credits: 4
This is an elective 4-week rotation in a women's health setting.

MEDPA 5644 Elective Women's Health I - 2 week Credits: 2
This is an elective 2-week rotation in a women's health setting.
MEDPA 5645 Elective Women’s Health II - 2 week Credits: 2
This is an elective 2-week rotation in a women's health setting.

MEDPA 5650 Pediatrics Rotation Credits: 4
This is a required 4-week rotation in a pediatric medicine setting.

MEDPA 5652 Elective Pediatrics Rotation I Credits: 4
This is an elective 4-week rotation in a pediatric medicine setting.

MEDPA 5653 Elective Pediatrics Rotation II Credits: 4
This is an elective 4-week rotation in a pediatric medicine setting.

MEDPA 5654 Elective Pediatrics Rotation I - 2 week Credits: 2
This is an elective 2-week rotation in a pediatric medicine setting.

MEDPA 5656 Elective Pediatrics Rotation II 2 week Credits: 2
This is an elective 2-week rotation in a pediatric medicine setting.

MEDPA 5660 General Surgery Rotation Credits: 4
This is a required 4-week rotation in a general surgery setting.

MEDPA 5662 Elective Surgery Rotation I Credits: 4
This is an elective 4-week rotation in a surgery setting.

MEDPA 5663 Elective Surgery Rotation II Credits: 4
This is an elective 4-week rotation in a surgery setting.

MEDPA 5664 Elective Surgery Rotation I - 2 week Credits: 2
This is an elective 2-week rotation in a surgery setting.

MEDPA 5665 Elective Surgery Rotation II - 2 week Credits: 2
This is an elective 2-week rotation in a surgery setting.

MEDPA 5670 Behavioral Medicine Rotation Credits: 4
This is a required 4-week rotation in a behavioral health setting.

MEDPA 5671 Behavioral Medicine Rotation - 2 week Credits: 2
This is a required 2-week rotation in a behavioral health setting.

MEDPA 5672 Elective Behavioral Medicine I Credits: 4
This is an elective 4-week rotation in the behavioral medicine setting.

MEDPA 5673 Elective Behavioral Medicine II Credits: 4
This is an elective 4-week rotation in the behavioral medicine setting.

MEDPA 5674 Elective Behavioral Medicine I - 2 week Credits: 2
This is an elective 2-week rotation in the behavioral medicine setting.

MEDPA 5675 Elective Behavioral Medicine II - 2 week Credits: 2
This is an elective 2-week rotation in the behavioral medicine setting.

MEDPA 5680 Geriatrics Rotation Credits: 4
This is a required 4-week rotation in a geriatric specialty care setting.

MEDPA 5681 Geriatrics Rotation - 2 week Credits: 2
This is a required 2-week rotation in a geriatric specialty care setting.

MEDPA 5682 Elective Geriatrics Rotation I Credits: 4
This is an elective 4-week rotation in the geriatric medicine setting.

MEDPA 5683 Elective Geriatrics Rotation II Credits: 4
This is an elective 4-week rotation in the geriatric medicine setting.

MEDPA 5684 Elective Geriatrics Rotation I - 2 weeks Credits: 2
This is an elective 2-week rotation in the geriatric medicine setting.

MEDPA 5685 Elective Geriatrics Rotation II - 2 weeks Credits: 2
This is an elective 2-week rotation in the geriatric medicine setting.

MEDPA 5690 Elective Clinical Rotation I Credits: 4
This is a 4-week clinical rotation experience in a new setting or an established area that students wish to gain additional experience.

MEDPA 5691 Elective Clinical Rotation II Credits: 4
This is a 4-week rotation in a newly or recently established clinical setting.

MEDPA 5692 Elective Clinical Rotation I - 2 week Credits: 2
This is a 2-week clinical rotation experience in a new setting or an established area that students wish to gain additional experience.
MEDPA 5693 Elective Clinical Rotation II - 2 week Credits: 2
This is a 2-week clinical rotation experience in a new setting or an established area that students wish to gain additional experience
MEDPA 5899 Required Graduate Enrollment Credit: 1
Required Graduate Enrollment.

**Physics (PHYSICS)**

**Courses**

**PHYSICS 5500 Methods Of Mathematical Physics I Credits: 3**
Intended to provide the student with the advanced mathematical techniques needed for beginning graduate studies in the physical sciences. Content includes real variables, infinite series, complex analysis, linear algebra and partial differential equations.

**PHYSICS 5501 Methods Of Mathematical Physics II Credits: 3**
A continuation of Physics 500 which includes Sturm-Liouville operators, special functions, Fourier transforms, distributions and Green functions, Laplace transforms, linear groups and tensor analysis.

**PHYSICS 5505 Survey Of Recent Development In Physics Credits: 3**
Specifically designed to help high school and junior college science teachers keep pace with current developments in various subdivisions of physics and their impact on society and technology. (Not applicable for graduate degree in Physics).
**Prerequisite:** Baccalaureate degree and one year science teaching experience.

**PHYSICS 5510 Theoretical Mechanics I Credits: 3**
A review of undergraduate mechanics precedes the study of generalized classical mechanics in this course. Topics include variational principles, Lagrangian and Hamilton methods, conservation laws and Hamilton-Jacobi theory.

**PHYSICS 5511 Theoretical Mechanics II Credits: 3**
A continuation of PHYSICS 5510, this course covers topics such as normal coordinates, small oscillations, continuum mechanics and special/general relativity.

**PHYSICS 5520 Electromagnetic Theory And Applications I Credits: 3**
Electrostatics, magnetostatics and various approaches in solving boundary value problems of electromagnetism, Green’s functions, conformal transformations and polynomial expansions, Maxwell’s equations and waves.

**PHYSICS 5521 Electromagnetic Theory And Applications II Credits: 3**
Waveguides, fiber optics, radiation systems and antenna for wireless communications, scattering and diffraction of electromagnetic waves, multipole fields, special relativity and relativistic particle dynamics and radiation.

**PHYSICS 5530 Quantum Mechanics I Credits: 3**
Review of elementary methods, formal preliminaries, axioms, commuting operators, angular momentum, static perturbation theory, Wigner-Eckart theorem.

**PHYSICS 5531 Quantum Mechanics II Credits: 3**
Time dependent perturbation theory, scattering, applications to atoms, molecules and nuclei, reactions, relativistic methods.

**PHYSICS 5535 Optical Properties Of Matter Credits: 3**
Maxwell’s equations and the dielectric function, absorption and dispersion, free-electron metals, interband transitions, dispersion relations and sum rules, self-consistent field approximation, current-current correlations and the fluctuation-dissipation theorem, plasmons and characteristic energy loss.
**Prerequisites:** PHYSICS 450, PHYSICS 460, PHYSICS 461, PHYSICS 472, PHYSICS 5500.

**PHYSICS 5537 Particle Physics Credits: 3**
Essential aspects of modern particle physics are examined in a historical context, and also in terms of the standard model describing concisely the fundamental interactions among particles. Conservation laws are discuses, and recent developments such as String Theory are considered.
**Prerequisites:** (for undergraduates) PHYSICS 240, PHYSICS 250, and PHYSICS 350 or PHYSICS 472.

**Cross Listings:** PHYSICS 437.

**PHYSICS 5540 Statistical Physics I Credits: 3**
Statistical mechanics as a basis for thermodynamics; classical distribution functions; quantum statistical mechanics, kinetic theory, transport phenomena, application to systems of interacting particles.
**Prerequisites:** PHYSICS 410, PHYSICS 472.

**PHYSICS 5541 Statistical Physics II Credits: 3**
Special topics in advanced statistical physics including: second quantization, modern many body theory, interacting Fermi and Bose systems, superfluidity and superconductivity, renormalization group and computer simulation techniques.
**Prerequisites:** PHYSICS 5540.
PHYSICS 5550 Atomic And Molecular Structure Credits: 3
Experimental results and theoretical models by quantum mechanics. Special emphasis on the interaction between radiation and matter.

PHYSICS 5553 Practical Astronomy Credits: 3
A practical overview of the basic methods of observational astronomy research, including the principles of telescopes, detectors and measurement theory, as well as hands-on experience with data reduction and analysis. This course is open to graduate students from all majors.

PHYSICS 5555 Stellar Astrophysics Credits: 3
A mathematical and conceptual overview of the observed properties of stars and the fundamental astrophysics of radiative transfer, hydrostatic equilibrium, atomic processes and thermonuclear energy production that govern their structure, atmospheres and remnants.

PHYSICS 5556 Galaxies Credits: 3
A mathematical and conceptual overview of the observed properties and astrophysics of galaxies highlighting star formation and evolution, the interstellar medium, the Milky Way, galaxy populations and demographics, active galactic nuclei, and galaxy formation and evolution.

PHYSICS 5560 Nuclear Physics Credits: 3
Fundamental properties of the atomic nucleus discussed in terms of experimental results and theoretical models. Quantum and statistical mechanics are used where appropriate.

PHYSICS 5565 Cosmology Credits: 3
This course provides a foundation in both physical and observational cosmology. Students will acquire both a mathematical and conceptual understanding of the formation and dynamics of the Universe.

PHYSICS 5570 Quantum Theory Of Solids I Credits: 3

PHYSICS 5571 Quantum Theory Of Solids II Credits: 3
Topics will include crystal imperfections, impurities and defects, optical properties of metals and semiconductors, electron-lattice interaction and transport theory, superconductivity and theory of disordered systems.

PHYSICS 5580 Physics Seminar Credit: 1
Contemporary publications and research.

PHYSICS 5585 Physics of Electronics Credits: 3
An introduction to the solid state physics of basic electronic components and their operation through both theory and practical lab work.

PHYSICS 5590 Topics In Physics Credits: 1-3
Contemporary publications and research.

PHYSICS 5590A Topics In Physics Credits: 1-3
Contemporary publications and research.

PHYSICS 5590B Special Topics Credits: 1-3
Contemporary publications and research.

PHYSICS 5590R Topics in Physics Credits: 1-3
Contemporary publications and research.

PHYSICS 5595L Computer Interfacing Laboratory Credits: 3
An introduction to computer interfacing through the use of serial and parallel ports and digital-to-analog and analog-to-digital converters. The course also introduces digital filtering techniques, data analysis techniques, and graphical presentation of data. The programming techniques are taught using high level programming languages currently used in research and development labs.

PHYSICS 5599 Research And Thesis Credits: 1-9
Research for thesis in partial fulfillment of the master's degree in physics.

PHYSICS 5680 Research Seminar Credits: 1-2
Seminars on current research topics of research programs in the department and those of external distinguished scientists. (Must be taken by Physics Ph.D. students).

PHYSICS 5690 Special Research Topics Credits: 1-3
A lecture course presenting advanced research-level topics.

Prerequisites: Ph.D. candidacy. This course is intended to allow faculty and visiting scholars to offer special courses in selected research areas.

PHYSICS 5699 Research And Dissertation Credits: 1-9
Research for dissertation in partial fulfillment of the Ph.D. degree requirements in physics.

PHYSICS 5899 Required Graduate Enrollment Credit: 1

Piano (PIANO)
Courses

PIANO 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

PIANO 5500A Graduate Piano-Secondary Credits: 2

PIANO 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

PIANO 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

PIANO 5500JA Graduate Applied Jazz Studies Credits: 2
One-hour lesson weekly. Jury examination is required.
Prerequisites: Graduate standing.

PIANO 5500JB Special Applied Jazz Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. A jury for comments only may be held at the discretion of the faculty.
Prerequisites: Graduate standing.

PIANO 5500JC Applied Jazz Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied jazz study in an area other than, and in addition to, their primary performance study.
Prerequisites: Graduate standing.

PIANO 5501 Graduate Piano - Masters Performance Credits: 4

PIANO 5601 Graduate Piano - Doctoral Performance Credits: 4

Political Science (POL-SCI)

Courses

POL-SCI 5501 Seminar in American Government Credits: 3
A seminar involving intense examination of the foundations, development, and structure of American national government through study of a broad range of classic materials and current research findings; course will prepare a political science graduate student to teach an introductory college course in American government.
Prerequisites: Graduate Standing.

POL-SCI 5505 Scope And Methods Of Political Science Credits: 3
This seminar surveys the various descriptive and quantitative approaches to the study of politics, government and public policy. It covers the methods used in various sub-disciplines and the models employed in political analysis.

POL-SCI 5506 Research Design and Analysis Credits: 3
This course focuses on methods of data gathering, management, and analysis used in political science research. Students gain an understanding of different types of data including surveys, experiments, and archival records. The curriculum will also include ways that these data are managed and analyzed, and how the results are presented in a useful manner.

POL-SCI 5513 Seminar in Comparative Politics Credits: 3
A survey of the major research in comparative politics including state building, democracy, economic development, and political violence.
Cross Listings: POL-SCI 425.

POL-SCI 5521 Judicial Politics Credits: 3
This course addresses broad trends of current research in the area of the judicial process based on empirical studies and the various methodological tools currently used by researchers. Case studies may be used to illustrate in depth the institutional aspects of the judicial process. Biographies may also be used to emphasize the personal and environmental factors which affect judicial decision making.

POL-SCI 5522 Seminar In The Presidency Credits: 3
Critical examination of the American presidency, with in-depth research into selected themes and presidents.
Prerequisites: POL-SCI 406.

POL-SCI 5524 Urban Politics Credits: 3
A seminar on politics and government in urban areas with special attention to community leadership, power structures, interest group and party activity, political behavior, and movements toward local government reform.
POL-SCI 5530 Seminar in International Relations Credits: 3
This course examines major schools of thought and contemporary research in international relations. Topics discussed include international systems, the causes of war and peace, collective security, and international political economy.

POL-SCI 5541 American Political Thought Credits: 3
This course will focus on intellectual reactions to the major periods in American history (the movement for independence, the writing of the constitution, the Jacksonian period, the civil war debate, the growth of big business, the rise of the positive state and contemporary America). Contemporary theorists will be included along with Jefferson, Madison, Hamilton and Marshall.

POL-SCI 5542 Constitutional Interpretation Credits: 3
This course will provide an in-depth treatment of selected areas of constitutional development, related to various aspects of public policy developed under the Constitution through judicial interpretation, including federalism, equality, fundamental rights and freedom of expression.

POL-SCI 5570 The Politics Of Social Security Credits: 3
This course will concentrate upon the principles of social insurance in general, and of the American Social Security system in particular. It will consider the system in relation to the history and traditions of American society. It will analyze popular misconceptions and will pay special attention to the political, economic, and demographic issues relevant to Social Security's current operation and to the program's future.

POL-SCI 5575 Political Ideologies Credits: 3
Consideration of political ideologies and their effects, with in-depth research into selected topics.

POL-SCI 5580 Government And Politics Seminar Credits: 3
Offered as a special seminar in the individual faculty member’s area of research specialization. The seminar may be repeated for credit when the topic varies. The topic and instructor will be announced in advance.

POL-SCI 5590 Directed Studies And Research Credits: 1-6
Under the direction of the instructor, students in this course will produce a major research paper: a self-contained thesis chapter, an article for publication or the equivalent. May be repeated for credit.

POL-SCI 5599 Thesis Credits: 1-6
Directed specialized research.

POL-SCI 5688 Doctoral Research Seminar Credits: 3
Students will produce a major research paper under the direction of the instructor. The research project will consist of a self-contained chapter of the dissertation or a work of publishable quality. May be repeated for credit.

POL-SCI 5697 Doctoral-Level Independent Readings Credits: 3
Individual readings under the supervision of members of the Political Science Graduate or Doctoral Faculty in the specified topic or topics. May be repeated. May not be taken during an academic year in which a graduate course or seminar is offered on the topic.

POL-SCI 5697A Doctoral-Level Ir: American National Politics And Institutions Credits: 3
POL-SCI 5697I Doctoral-Level Ir: International Politics And Processes Credits: 3
POL-SCI 5697L Doctoral-Level Ir: Public Law Credits: 3
POL-SCI 5697O Doctoral-Level Ir: Public Opinion And Voter Behavior Credits: 3
POL-SCI 5697R Doctoral-Level Ir: Research Methods Credits: 3
POL-SCI 5697T Doctoral-Level Ir: Political Theory Credits: 3
POL-SCI 5697U Doctoral-Level Ir: Urban And State Politics Credits: 3
POL-SCI 5699 Research And Dissertation Credits: 1-12
Directed specialized research.

POL-SCI 5899 Required Graduate Enrollment Credit: 1

Psychology (PSYCH)

Courses
PSYCH 5504 Contemporary Issues In Learning Credits: 3
A discussion and analysis of recent research and theoretical papers in learning. The student will have to demonstrate undergraduate competence in learning in the first few weeks of this course in order to remain enrolled.

PSYCH 5505 Motivation Credits: 3
The definition of the concept of motivation is explored. Emphasis is placed upon integration of the concept of motivation into comprehensive theoretical explanations of phenomena. Students should have in their background a foundation in Learning Theory (or at least Theory Construction) and Experimental (Scientific Method). Previous laboratory experiences are desired.

PSYCH 5507 Cognitive Psychology Credits: 3
An overview of the cognitive approach to the study of human behavior. Recent research and theoretical issues in the areas of perception, memory, and concept formation are emphasized.
PSYCH 5509 Assessment 1: Intellectual And Cognitive Assessment Credits: 3
This course is designed to provide students with a foundation in the use of intellectual and cognitive assessment instruments in clinical evaluation. The course covers theoretical issues pertinent to intellectual and cognitive assessment, as well as basic assessment skills including administration, scoring, interpretation, and communication of results for commonly used measures.

PSYCH 5510 Assessment Methods In Professional Counseling Credits: 3
This course provides an understanding of assessment process and assessment techniques. Skills and practice in selection, administration, and interpretation of representative assessment instruments. Two semester hours lecture, two semester hours lab experience per week.
Prerequisites: Course on assessment of intellectual functioning.

Cross Listings: CPCE 5515.

PSYCH 5511 Principles Of Assessment In Psychology Credits: 3
This will be a field practicum course in which test batteries will be used to assess and evaluate the intelligence, personality, and aptitude of the individual.
Prerequisites: PSYCH 5510.

PSYCH 5512 Contemporary Issues In Social Psychology Credits: 3
A critical survey of the recent literature in social psychology with emphasis on experimental investigations.

PSYCH 5515 Advanced Systems And History Of Psychology Credits: 3
In depth review of the major theoretical systems of psychology in terms of historical assumptions, methodologies and developments with the goal of enabling the student to better evaluate current theories and assumptions in psychology.

PSYCH 5516 Quant Analysis 1: Regression And Analysis Of Variance Credits: 3
This graduate level statistics course for students in education and the behavioral sciences provides a strong conceptual understanding of two major statistical procedures with the context of the general linear model: multiple regression and numerous analysis of variance (ANOVA) models. Students will learn to select appropriate statistical techniques, tests the assumptions of the techniques, analyze data using statistical software, and report the results of their analyses in the format of the American Psychological Association (APA, 2002).
Prerequisites: EDUC-R&P 5505, PSYCH 316.

Cross Listings: EDUC-R&P 5605.

PSYCH 5517 Quantitative Analysis II: Advanced Topics In Regression And Mda Credits: 3
This graduate level statistics course for students in the behavioral sciences and education provides a strong conceptual understanding of advanced topics in regression (interaction effects, logistic regression, path analysis) and various multivariate techniques (MANOVA, canonical correlation, factor analysis). Students will complete a series of data based projects that allow them to demonstrate their skills in analysis, reporting and interpretation of findings.
Prerequisites: EDUC-R&P 5605 / PSYCH 5516 and EDUC-R&P 5505.

Cross Listings: EDUC-R&P 5606.

PSYCH 5518 Advanced Biopsychology Credits: 3
This course assumes that the student has mastered the basics of biopsychology, and deals with this topic in greater depth and scope than PSYCH 418. It will begin with a brief review and update of basic materials of neuroanatomy, neuronal conduction, and synaptic transmission but will quickly turn to an emphasis on biological influences on human psychology, in particular those biological factors that are of practical significance in the lives of patient and non-patient populations.
Prerequisites: PSYCH 418 (or equivalent).

PSYCH 5521 Advanced Social Psychology Credits: 3
The study of the individual in a social context. How social structure and interaction influence the behavior of an individual. Several contemporary systematic positions will be compared.

PSYCH 5522 Contemporary Issues In Developmental Psychology Credits: 3
A discussion of recent research literature in developmental psychology leading to an individual research project in this area.

PSYCH 5523 Seminar Personality Theory And Methodology Credits: 3
A study of the social-cultural, trait, learning, perceptual, motivational, and field theories of personality with special emphasis on research studies and the methodology of personality research.
Prerequisites: PSYCH 323.

PSYCH 5530 Addressing Health Disparities through Community-based Participatory Research Credits: 3
The purpose of this course is to familiarize students with the principles of community-based participatory research as a strategy to reduce health disparities. Students will learn how CBPR principles are applied across the research continuum for developing new community partnerships, conducting needs assessments, developing culturally-appropriate health promotion interventions in collaboration with community-based organizations, and packaging health interventions for dissemination in minority communities. This class is organized with a service learning component which will require students to work with a local community-based organization on a health issue for which there is joint interest.
PSYCH 5533 Psychopathology Credits: 3
A review of the experimental-clinical literature concerning the behavior disorders with special reference to their classification and etiology. Course generally will be restricted to students enrolled in license-eligible specialties who have had an undergraduate course in abnormal psychology.

PSYCH 5538 Development And Evaluation Of Assessment Tools Credits: 3
This survey course examines test theories, construction, and measurement theories. Within the context of a variety of conceptual frameworks and examples, students become knowledgeable about the various purposes, approaches, and computer software tools for measurement.

Prerequisites: PSYCH 5516 and PSYCH 5517.

PSYCH 5540 The Psychology Of Aging Credits: 3
This course will identify major issues concerning psychology related to aging. The major influences on the behavior, cognitive functioning and emotions of older adults will be examined. Consideration will be given to individual, group and environmental influences. Possible interventions will be identified. Cross-sectional and longitudinal research will be reviewed in order to examine the changes in individuals due to aging and the differences between cohort groups. Three major areas of information will be the focus: concepts, theory and methods in psychology of aging; biological and social influences on behavior; and behavioral processes. There will be a review of current literature.

PSYCH 5543 Adult Development And Aging Credits: 3
This course will identify major themes and issues of mid-life and older adults. It will examine major developmental theories of adult development and aging. A contextual approach is stressed, including research and theory on the impact of cohort, gender, race/ethnicity, socioeconomic status, and culture on development. Application to real life is integrated throughout the course. There will be a review of current literature.

PSYCH 5550 Field Practicum Credits: 4
Provides supervised experience working in community agencies/ organizations which address various human and social problems. Students receive training in community service oriented skills and approaches, e.g., advocacy, community organizing, program assessment, development and evaluation, outreach, and applied research. Ten hours per week at practicum site and class attendance are required.

PSYCH 5575 Professional Issues And Ethics In Psychology Credits: 3
Ethical and legal problems of research and practice will be discussed. Professional organizations in psychology and their publications will be reviewed.

PSYCH 5575A Professional Issues & Ethics Credits: 3

PSYCH 5580 Special Topics Credits: 1-3
PSYCH 5580AD Special Topics Credits: 1-3
PSYCH 5580SM Special Topics Credits: 1-3

PSYCH 5582 Community Mental Health Credits: 3
A review of current theory and research. The emphasis is on prevention rather than treatment of mental health problems. The assets and liabilities of neighborhood communities for mental health problems will be discussed. Recent methods in crisis intervention are reviewed. Each student will be required to become familiar with a neighborhood with a high incidence of application for mental health care.

PSYCH 5586 Theory, Research And Practice Of Consultation Credits: 3
Theory and research on community, mental health, organizational and agency consultation. Entry, process, outcome and ethical issues surrounding each model of intervention will be explored. Each student will be expected to conduct and report on a consultation project.

PSYCH 5590 Directed Research Credits: 1-6

PSYCH 5597 Directed Readings In Psychology Credits: 3
Intensive readings in areas of joint interest to the enrolled student and the cooperating faculty.

PSYCH 5599 Research And Thesis Credits: 1-9

PSYCH 5601 Experimental Methods In Design And Analysis I Credits: 3
An examination of multifactor and multilevel designs and interactions. Topics covered will include randomized block designs. Latin square designs, complex trend analysis designs, covariance designs and multiple comparison of treatment means.

PSYCH 5604 Field Practicum In Community Psychology Credits: 3
Supervised experience in health care, social welfare, correctional, political, ethnic, and neighborhood agencies. May be repeated six times for up to 18 credit hours.

PSYCH 5611 Theories & Methods Of Assessment & Intervention/Community Psych Credits: 3
Review of the assessment and intervention literature in social situations will be conducted. Students will design and carry out an assessment and an intervention project.

PSYCH 5612 Program Evaluation And Research Dissemination Credits: 3
A study of the area of applied research in which process and outcome characteristics of programs are related explicitly to a set of values, such as program goals, objectives and costs.
PSYCH 5614 Prevention Science I: Theories, Principles And Methods Credits: 3
Course provides a comprehensive overview of the field of prevention emphasizing basic concepts, conceptual models, and approaches associated with prevention in the field of psychology. The goal is to provide knowledge that will allow students to critically evaluate prevention programs in their communities. Students apply their learning by conducting a critical analysis of an existing community prevention and/or health promotion initiative.

PSYCH 5615 Prevention Science II: Applications Credits: 3
This advanced seminar is the follow-up course to Prevention Science I. Emphasis is placed on the application of prevention science to specific content areas (e.g., substance abuse, violence in schools physical or sexual abuse, AIDS/HIV infection, infant mortality, cardiovascular disease, promoting social competence.) A semester project involves an in-depth review of prevention efforts in the chosen area of interest, resulting in a comprehensive research proposal and/or public policy analysis.

Prerequisites: PSYCH 5614.

PSYCH 5622 Theoretical And Ethical Issues In Professional Psychology Credits: 3
This course is designed to introduce first year doctoral students to the fundamental concepts and methods of psychology conceived as the application of scientific and ethical reasoning to human problems. It will provide an in-depth examination of the American Psychological Association code of ethics and its application to the conduct of psychologists. Critical and analytical thinking will be emphasized in all aspects of the course. The course will cover broad models of clinical and counseling psychology and their historical and scientific foundations, issues in diagnosis, cross-cultural applications and professional problems in light of ethical principles, professional standards, scientific data multicultural contexts.

Prerequisites: PSYCH 5623.

Cross Listings: CPCE 5530.

PSYCH 5625 Health Research Methods: Intro To Epidemiology & Clinical Trials Credits: 3
This course will introduce graduate students in health-related disciplines to research methods utilized in understanding disease and health risk in humans and conducting intervention trials. Students will learn about how epidemiology contributes to: 1) identifying factors that cause diseases; 2) assessing the public health importance of diseases; 3) describing the natural history of diseases; and 4) evaluating procedures for preventing or treating diseases. After completing this course, students should be able to read and summarize epidemiological research papers and answer questions about a study's purpose, design, methods of procedure, results, and major strengths and weaknesses.

Prerequisites: graduate standing; PSYCH 5601, (or equivalent).

PSYCH 5631 Theoretical Foundations Of Health Psychology Credits: 3
This course will introduce students to the theoretical foundations of health psychology, including the Biopsychosocial model, individual and systems level theories of behavior change, stress and coping, disease prevention and health promotion, as well as adherence and relapse models. Upon completion of this course students will possess a broad understanding of how cognitive, behavioral, and social factors interact with biological parameters in influencing morbidity and mortality. In addition, students will become familiar with several substantive areas (e.g., chronic pain, HIV/AIDS, cancer, sleep disorders, cardiovascular risk reduction), research methods, and multicultural and ethical issues in health psychology.

PSYCH 5632 Health Psychology Interventions Credits: 3
This course will introduce students to a wide range of psychological assessment and intervention strategies that can be used in health care settings. Individual, group, community and policy interventions will be discussed. This course may be used for credit in the Health Psychology Discipline of the Interdisciplinary Ph.D. Program.

Prerequisites: PSYCH 5631.

PSYCH 5638 Seminar In Health Care Leadership Credits: 3
This course is designed to offer an educational experience that fosters both the knowledge and skills needed for leaders of healthcare in the future. The instructors will guide students through the process of generating new thinking, creating new knowledge, and enhancing interpersonal and professional effectiveness. Course topics will include what creates health and quality of life, social capital and health, healthcare policy, collaborative problem-solving, and transformational leadership and systems thinking.

PSYCH 5650 Clinical Practicum Credits: 1-6
Advanced supervised assessment and psychotherapy with individuals and groups in applied settings. Preregistration by application to instructor at least 60 days prior to the beginning of the semester. Approval by Psychology Director of Clinical training required.

Prerequisites: PSYCH 5623.

PSYCH 5660 Clinical Health Psychology Internship Credits: 1-6
Planned sequence of training experiences in an organized program designed to prepare students for the practice of professional psychology.

PSYCH 5696 Pre-Dissertation Credits: 1-12
Individualized research experiences to prepare students for the conduct of the dissertation.
Public Administration (PUB-ADM)

Courses

PUB-ADM 5506 Management in Context Credit: 1.5
This course introduces students to the context of management in business, public, and nonprofit organizations with a specific emphasis on the political, regulatory, social, natural and global environment of management. Students who successfully complete this course gain an understanding of organizations and management that can be utilized in day-to-day work environments, apply theories and concepts to identify organizational issues, problems, and ethical considerations, and strengthen their ability to integrate and understand course content in a graduate program within the Bloch School of Management. Working individually and in groups, students will be asked to explain in written and oral formats, and in general and specific terms, what an organization is, how it works, and how it relates to them, to other organizations, and the environment.

PUB-ADM 5507 Management in Context Credits: 3
This course introduces students to management in business, public, and nonprofit organizations, with an emphasis on the political, legal, regulatory, social, and global contexts. Students will take this course at the beginning of their MBA program and will learn to integrate the course content into their other courses. They will apply theories and concepts to organizational issues, legal, and ethical problems. They will be exposed to the major differences between U.S. and international approaches regarding many management issues.

Prerequisites: Students must be enrolled in a Bloch School graduate program.

PUB-ADM 5510 Research Methods In Public Administration Credits: 3
This introductory course focuses on quantitative empirical research design and statistical analyses in relation to public administration issues and concerns.

PUB-ADM 5523 Public Policy Context for Business Decisions Credits: 3
This course is designed to provide intensive exposure to the forces and personalities in Washington, D.C. that shape America’s business policy. EMBA participants learn how to understand and anticipate the impact of public policy on their businesses and how to become more effective participants in the national decision-making process.

Prerequisites: Admission to the Executive MBA program.

PUB-ADM 5525 Financial Accountability And Policy Development Credits: 3
Modern fiscal policy and its administrative implications to planning, budgeting, revenue administration, accounting and appraisal, and the process for assuring accountability in the development, timing, and execution of public programs.

Prerequisites: PUB-ADM 5510 (or equivalent).

PUB-ADM 5526 The Politics Of Administration Credits: 3
This course will introduce the subject of public administration from a political perspective. Special attention will be given to an examination of the administrative branch of government. More specifically, the course will focus on the demands directed to administrators from various sectors of the political system, ways in which administrators respond to those demands, and methods available for the analysis of public policies that help us assess the impacts that flow from administrators’ actions.

PUB-ADM 5528 Supervision, Performance Leadership, & Human Resource Management Credits: 3
Focuses on the public service leader as a catalyst in developing and sustaining high-performance, outcome-based cultures and as a human resource strategist in marshaling the workforce. Geared to the work of nonprofit, health care, and government executives and managers, the course addresses strategies for developing, organizing, and mobilizing the workforce to accomplish the organization’s mission. Topics include recruiting, engaging and retaining talent, including volunteers; developing and coaching subordinates; appraising and rewarding performance; delegation; and legal dimensions of HR, including anti-discrimination law.

Prerequisites: PUB-ADM 5548.

PUB-ADM 5529 Social Responsibility and Social Entrepreneurship Credits: 2
Using the social enterprise concept, students learn the theory that major companies can move social responsibility from a cost center to a profit center. In this evolving landscape, social entrepreneurs are at the vanguard of creating new business models for neglected markets that corporations can emulate, partner with or acquire to take to scale. As the traditional lines blur among nonprofits, government and business, it is critical that business students understand the opportunities and challenges in this new landscape.

PUB-ADM 5530 Capstone Seminar In Public Administration Credits: 3
This course examines theories of public organizational design, structure and change, including various issues in the administration of public organizations. Questions of professional ethics and management in the public interest are also considered. This is the final course in the MPA core curriculum.

Prerequisites: PUB-ADM 5525, PUB-ADM 5526, PUB-ADM 5544, PUB-ADM 5548 (or equivalents), or concurrent enrollment. Health-services students can substitute HLTH-ADM 5571 for PUB-ADM 5525, and HLTH-ADM 5578 for PUB-ADM 5544.
PUB-ADM 5535 Urban Policy And Administration Credits: 3
An examination of the formulation and administration of policies by urban governments. The course examines (a) the historical and intergovernmental contexts for decision making by urban governments, (b) the governmental forms and political processes employed in making these decisions, and (c) the various urban problems and service delivery issues which require decisions in the contemporary city.

PUB-ADM 5536 Managing Urban Economic Development Credits: 3
This course explores what managers in the public, nonprofit and private sectors need to know about urban economic development. Topics include (a) theories of urban economic development, (b) varying forms of development (e.g., attraction of new industries, central business district development, neighborhood economic development), (c) policy managerial tools for stimulating development, and (d) issues of equity in economic development.

PUB-ADM 5538 Comparative Urban Administration Credits: 3
An analysis of urban administration and planning in different comparative political, economic, and cultural settings. Analytical techniques will be applied to case studies of selected urban administrative processes involving American and other cities.

PUB-ADM 5539 Urban Planning for Public Administrators Credits: 3
This course is designed to provide students in urban administration with a comprehensive overview of the planning process. Course topics include a review of planning and the problems of effective planning implementation.

PUB-ADM 5540 Metropolitan Governance Credits: 3
Relatively few of the problems confronting urban areas are confined to a single city and the most challenging problems usually require regional solutions. This graduate-level course examines the challenges encountered in governing metropolitan regions, the key actors in this process, and the means by which regional problems are identified and addressed. The topics covered in this course include: regional politics and the obstacles to intergovernmental cooperation; the role of councils of government and other regional bodies in metropolitan governance; and the powers, obligations, and roles of municipal and county government in regional systems of governments.

PUB-ADM 5541 Public Policy Development and Analysis Credits: 3
Public, nonprofit, and health organizations must navigate dense systems of complementary and contradictory public policies. These policies assign value to the actions of citizens, and are designed through a process of negotiation and analysis. In this course students will develop the frameworks and analytical methods necessary to understand the process of policy creation as well as the costs and benefits associated with any given policy, including the economic foundations for policy and the impact of policy on management decisions.

PUB-ADM 5544 Program Evaluation Credits: 3
Survey of the tools and procedures for evaluating and analyzing policies and programs in the public sector, including nonprofit and human services organizations. Consideration of such topics as definition of goals, developing measures of effectiveness, evaluation research designs, benefit-cost analysis, and the special problems of rational analysis in a political environment. 
**Prerequisites:** PUB-ADM 5510 (or equivalent).

PUB-ADM 5546 Socially Responsible Management and Ethics Credits: 2
An introduction to the context of management in business, public, and nonprofit organizations with a specific emphasis on the political, regulatory, social, natural and global environment of management. Students gain an understanding of organizations and management that can be used in day-to-day work environments, apply theories and concepts to identify organizational issues, problems, and/or ethical considerations. Working individually and in groups, students explain in written and oral formats, and in general and specific terms, what an organization is, how it works, and how it relates to them, to other organizations, and the environment.

PUB-ADM 5548 Leadership For Public Service Credits: 3
The two core purposes of this course are for students to learn about effective and ethical leadership, and for students to understand and develop their own capacity for leadership. The course is organized around three general themes: 1) leadership as relations with subordinates, including issues of work motivation; 2) leadership as lateral relations, including organizational politics and conflict management and resolution; and 3) leadership as influence in the organization's environment.

PUB-ADM 5551 Strategic Management In Nonprofit Organizations Credits: 3
This is an advanced course in the nonprofit management emphasis. Following review of the legal and economic uniqueness of private, nonprofit organizations, the course helps students develop a strategic framework and apply the key concepts to the management of nonprofit entities. Recommended
**Prerequisites:** PUB-ADM 495, PUB-ADM 5548 (or equivalent).

PUB-ADM 5552 Community Organizations And Public Policy Credits: 3
This course includes examination of both neighborhood organizations and organizations intended to promote other communities of interest. In relation to neighborhood organizations, topics considered include the varieties of neighborhoods, the role of neighborhood organizations in local politics, the use of neighborhoods in administrative and political decentralization, and federal policy toward neighborhood issues. In relation to other community organizations, topics considered include the basis of such organizations, their roles in public affairs and their effects on policy processes.

PUB-ADM 5553 Legal Framework & Financial Management Of Nonprofit Organizations Credits: 3
Utilizing a comparative approach the course examines the legal basis and tax treatment of private, nonprofit organizations in the U.S. Related topics also considered include concepts of fund and cost accounting, budgeting processes, earned income strategies, employee compensation and benefits practices, laws and regulations affecting lobbying, competition with business and unrelated business income tax.
PUB-ADM 5554 Seminar on Social Entrepreneurship Credits: 3
Seminar on Social Entrepreneurship is a graduate-level special-topics seminar that offers students from across the university the opportunity to engage in an in-depth examination of social entrepreneurship and how it is being understood, developed and practiced in the nonprofit sector. Students will gain a broad understanding of the various conceptions, types and aspects of social entrepreneurship, learn about processes for engaging in entrepreneurial nonprofit organization development, and discuss design and implementation issues with nonprofit leaders who have implemented various forms of social entrepreneurship.

PUB-ADM 5555 Topics In Nonprofit Fundraising Credits: 1-3
In order to flexibly treat the variety of strategies and techniques of charitable fundraising, these courses will usually be offered in variable credit hour segments, covering traditional and emerging fundraising topics. Each semester, two two-credit-hour segments and two one credit-hour segments will be offered. The two credit hour courses - Organizing for Successful Fund Raising and "Creating and Implementing the Annual Development Plan" - cover the basics of fund raising. The one-credit hour courses allow students to explore several different issues related to fund raising such as direct marketing and planned giving. These courses are recommended for nonprofit management students.

PUB-ADM 5555A Topics In Nonprofit Fund Raising: Organizing For Successful Fund Raising Credits: 2
Organizing for successful fundraising.

PUB-ADM 5555B Topics In Nonprofit Fund Raising: Creating & Implementing Annual Development Plans Credits: 2
Creating and implementing annual development plans.

PUB-ADM 5555C Topics In Nonprofit Fund Raising: Direct Marketing & Direct Mail In Fundraising Credit: 1
Direct marketing and direct mail in fundraising.

PUB-ADM 5555D Topics In Nonprofit Fund Raising: Planned Giving and Major Gift Solicitation Credit: 1
Planned Giving and Major Gift Solicitation.

PUB-ADM 5555E Topics In Nonprofit Fund Raising: Contemporary Trends/Ethical Issues In Fund Raising Credit: 1
Contemporary trends/ethical issues in fundraising.

PUB-ADM 5555F Topics In Nonprofit Fund Raising: Prospect Research And Proposal Writing Credit: 1
Prospect research and proposal writing.

PUB-ADM 5555G Developing Campaigns and Working with Consultants Credit: 1
In this course, various fund development campaigns and strategies will be explored; students will understand the differences between construction, renovation, equipment, program development and endowment as gift objectives. The phases of a campaign will be reviewed along with background on committee structures, goal-setting, leadership, timing and gift tables. The role of fund raising counsel will be explored. Participants will have an understanding of campaigns as important, episodic exercises for nonprofit agencies.

PUB-ADM 5555H Measurement and Evaluation for Fundraising Success and Social Impact Credit: 1
Nonprofit leaders can spend an enormous amount of time and effort creating evaluation models and reporting relevant data to funders to demonstrate positive social impact. Demonstrating success of a program or initiative is the basis for ensuring that a nonprofit has been a good steward of its mission and donated funds. However, the investment in building and fulfilling evaluation models must be commensurate with the funds awarded. This course will provide an overview of the planning and development of evaluation approaches that align well with the organization's and funder's needs. The course will introduce participants to the development and use of evaluation models.

PUB-ADM 5555X Topics In Nonprofit Fundraising Credit: 1
Special topics in nonprofit fundraising.

PUB-ADM 5556 Innovation In Nonprofit Management And Leadership Credits: 3
This course provides an opportunity for students in the nonprofit management specialization to examine "breaking" innovations in nonprofit management and leadership. Intra- and inter-sectoral collaborative strategies and total quality management are illustrative examples. Other topics will be considered as warranted. Recommended preparation: PUB-ADM 5525, PUB-ADM 5548 (or equivalents), and at least six hours of nonprofit management coursework.

PUB-ADM 5558 Ethics for Nonprofit and Public Administrators Credits: 3
It is essential that organization and community leaders and managers understand the imperatives of ethical practice and ethical leader and manager behavior in nonprofit and governmental settings. Students are prepared to identify and assess the ethical implications of management and policy alternatives, to spot ethical issues before they become crises, and to competently and confidently develop and implement ethical decisions and actions in policy and practice. The ethical dimensions of democracy, political loyalty, pressure politics, interest group issues, pluralism, diversity and multi-cultural challenges, corruption and evil, honesty, the limits of ethical codes, whistle-blowing are included.

PUB-ADM 5559 Voluntarism, Philanthropy, and the Nonprofit Sector Credits: 3
This course provides a survey of the origins, development and contemporary functioning of the private, nonprofit sector in the U.S. The course explores theories and concepts that describe the social, political, legal and economic meaning of voluntarism, philanthropy and the nonprofit sector. Cross Listings: PUB-ADM 495.

PUB-ADM 5565 Topics In Urban Administration Credits: 1-3
To flexibly treat the variety of strategies, information, and techniques in urban administration and leadership, these courses will be offered in variable credit hour segments. Each semester, courses will be offered around traditional and emerging topics. An initial "basics" series will be offered on community development organizations, urban economic development and community development strategies.
PUB-ADM 5565A Community Economic Development: The Planning Context Credit: 1
PUB-ADM 5565B Community Economic Development Tools & Techniques Credit: 1
PUB-ADM 5565C Implementing Effective Community Economic Development Credit: 1
PUB-ADM 5565D Topics in Urban Administration Credits: 1-3
To flexibly treat the variety of strategies, information, and techniques in urban administration and leadership, these courses will be offered in variable credit hour segments. Each semester, courses will be offered around traditional and emerging topics. An initial “basics” series will be offered on community development organizations, urban economic development and community development strategies.

PUB-ADM 5566 Urban Environmental Policy Credits: 3
Our cities are a first line of action in our efforts to sustain our environment. Many have begun to examine and address the connection between city problems and environmental and climate change, and the disproportionate impacts that they often have on the disadvantaged, yet these initiatives address only the surface of the issue. It is essential for scientists, public administrators, environmentalists, and policy thinkers to pay greater attention to the environmental challenges of our cities. Students examine and assess the challenge of understanding, developing and implementing coherent environmental policy to address such challenges in urban communities.

PUB-ADM 5567 Managing for Sustainability in an Urban Environment Credits: 3
Managing for sustainability requires an understanding of theories of organization, environmental management, and sustainability, including how to define and achieve sustainability. Students examine the complexities associated with issues of sustainability and the interrelationship between the global, the local and the personal. This includes consideration of how organizations function, the obstacles to sustainability confronted by sustainability managers, and specific management strategies and tools available to sustainability managers. It also involves the study of change models and their application by managers faced with the challenge of moving an organization from an old operational model to a more sustainable new organizational design.

PUB-ADM 5570 Diversity In The Workplace Credits: 3
This course explores the many issues raised by the growing diversity of backgrounds (e.g., race, gender, culture) employees bring to the workplace. The course will examine diversity issues including demographics, relevant legislation, values questions, demands on management, and effects on service delivery to clients. To better illustrate the issues, some class sessions will feature guest lecturers representing a diversity of backgrounds and work settings.

PUB-ADM 5573 Health and Social Equity Credits: 3
Examines the complex relationship between the social and political environment and health outcomes. All policy is health policy – economic, transportation, natural and built environments, schools. This course will examine diversity issues including social equity shapes health behaviors and how the life odds in different communities expose the historical legacies of past injustices. Only ten percent of health disparities are explained by access to care, although health care and health insurance dominate the public conversation. Draws on guest speakers, books, journal articles, popular press, film and art; as varied as are the social determinants of health, so are media that explore those relationships.

Cross Listings: HLTH-ADM 5573.

PUB-ADM 5581 Seminar In Urban Administration Credits: 3
Advanced work on special topics in urban administration. Topics will vary.
Prerequisites: PUB-ADM 5535.

PUB-ADM 5582 Developing and Managing the Nonprofit Social Enterprise Credits: 3
This graduate-level course offers students from across the university the opportunity to learn about and better understand the processes and practices associated with developing and operating a nonprofit social enterprise. Students learn through team-based simulation experience what is required to create and operate successful social enterprises, and engage in extensive discussions with nonprofit leaders who have implemented some form of social enterprise or other innovative earned-income initiative.

PUB-ADM 5585 Seminar In Public Affairs Credits: 3
Advanced work on special topics in public affairs.
PUB-ADM 5585A Seminar In Public Affairs Credits: 3
Advanced work on special topics in public affairs.
PUB-ADM 5585B Seminar In Public Affairs Credits: 3
Advanced work on special topics in public affairs.
PUB-ADM 5585C Seminar In Public Affairs Credits: 3
Advanced work on special topics in public affairs.
PUB-ADM 5587 Special Topics Credits: 3
Special topics in public administration.
PUB-ADM 5595 Internship Seminar Credits: 1-3
Combined classroom study and field internship. To be offered only when government agency internships approved by the Public Administration Committee are available.
Prerequisites: 18 credit hours of completed courses.
PUB-ADM 5598A Supervised Research: Nonprofit Management Credits: 1-6
PUB-ADM 5598C Supervised Research: Urban Administration Credits: 1-6
PUB-ADM 5598G Supervised Research: Unspecified Credits: 1-6
PUB-ADM 5599 Thesis Credits: 1-9
PUB-ADM 5610 Inquiry In Public Administration And Affairs Credits: 3
This course is designed to provide Ph.D. students a thorough grounding in strategies of inquiry. Issues considered include competing metatheoretical paradigms and alternative conceptions of explanation in the social and policy sciences, the implications of such alternatives for empirical research, the variety and standards of qualitative and quantitative approaches to theory and research, theory construction, and research ethics. Contemporary problems in public administration and affairs research and theory are emphasized.
PUB-ADM 5620 Literature Of Public Affairs And Administration Credits: 3-6
This course grounds the student in the central ideas of the public affairs and administration literature and in the prominent themes of the discipline. The course is offered in two versions: A, in which the political science approach to public affairs and administration is emphasized; and B, in which the organizational theory and behavior approaches to public affairs and administration are emphasized. Ph.D. students whose coordinating discipline is public affairs and administration are ordinarily expected to complete both versions.
Prerequisites: PUB-ADM 5525, PUB-ADM 5526, and PUB-ADM 5544 (for PUB-ADM 5620A); PUB-ADM 5530, PUB-ADM 5548 (for PUB-ADM 5620B).
PUB-ADM 5620A Literature Of Public Affairs And Administration: Political Science Credits: 3-6
PUB-ADM 5620B Literature Of Public Affairs And Administration: Organizational Theory & Behavior Credits: 3-6
PUB-ADM 5699 Dissertation And Research In Public Affairs And Administration Credits: 1-12
Dissertation research and writing in the Public Affairs and Administration discipline.
PUB-ADM 5899 Required Graduate Enrollment Credit: 1

Reading (EDRD)

Courses
EDRD 5439 Language and Literacy Across the Disciplines Credits: 3
Principles and application of disciplinary literacy in the middle and secondary classroom. Class will be primarily composed of discussion and lecture. As a part of the course, teacher candidates will inquire into and analyze disciplinary practices in 5-12 schools.
Prerequisites: Admission to the school of education.
EDRD 5501 Teaching Of Reading Credits: 3
This graduate language and literacy course explores foundational theories and research that have influenced literacy instruction and assessment in the United States. In particular, this course examines critical sociocultural theories and high leverage literacy practices for diverse learners. Prerequisites: TCH-ED 415 (or equivalent); No pre-requisites for students at the MA or EdSpec level.
EDRD 5502 Early Literacy and Language Development Credits: 3
This graduate language and literacy course emphasizes learning theories related to language acquisition, continuums of emergent literacy development, and corresponding teaching methods for literacy instruction and assessment of diverse learners. This course also prepares teachers and reading professionals to implement continuous professional learning related to language acquisition and emergent literacy with other teaching professionals.
EDRD 5510 Adolescent Practicum in Literacy Assessment and Intervention Credits: 3
This course ensures learners understand the purposes, strengths, and limitations of different literacy assessments in order to assess adolescent students’ proficiencies. The course will focus on identifying cognitive, motivational, and sociocultural factors that contribute to literacy success for the adolescent student in order to design and teach literacy intervention lessons with a struggling adolescent reader. As part of the practicum experience, learners are trained on communicating assessment results and implications to a variety of audiences.
EDRD 5511 Advanced Literacy Assessment and Evaluation Credits: 3
This graduate language literacy course engages teachers and literacy specialists in building foundational knowledge, analyzing, and administering intelligence and achievement tests focusing on a range of skills and abilities. The course foregrounds research-based, developmentally-appropriate theoretical frameworks and measures of cognitive functioning and academic achievement, as well as formative and summative literacy assessment practices through a variety of advanced level methods.
Prerequisites: EDRD 5501.
EDRD 5515 Seminar In Reading Credits: 3
In this seminar, candidates will be introduced to the discourse of literacy research, understand commonly used practitioner research designs, become critical consumers of literacy research, and expand their knowledge of the extant body of literature on literacy and literacy for diverse learners.
Prerequisites: EDRD 5510.
EDRD 5520 Elementary Practicum in Literacy Assessment and Intervention Credits: 3
This culminating elementary practicum is designed for graduate students in Language Literacy. This course prepares teachers to demonstrate proficiency in meeting the literacy needs of struggling readers and diverse learners in an elementary school setting and engaging in peer coaching and active self-peer analysis in order to improve their own instructional practices. Note: As this is the culminating course in the degree program, students are encouraged to implement learning concepts, practices, and assessments from previous coursework as appropriate during this practicum course. **Prerequisites:** EDRD 5502, EDRD 5510.

EDRD 5530 Reading Instruction for K-12 English Language Learners Credits: 3
This course investigates ways to differentiate reading instruction to meet needs of English Language Learners with different levels of language proficiency and at different developmental and academic levels. The course focuses on research findings related to literacy development of diverse learners and ways to strengthen diverse classroom communities. This is an elective course in Language Literacy and does not have prerequisites.

EDRD 5540 African American English in Society and Schools Credits: 3
This course deals with the distinctive varieties of English used by and among African Americans, particularly in big-city settings, and their parallels elsewhere in Africa and the New World, especially in the Caribbean. The subject is approached from four perspectives that will be covered in the course: (1) Present-Day Features of African American Vernacular English (AAVE), its phonology, syntax, lexicon; (2) History and origins of AAVE; (3) Speech Events and Expressive Language Use (SEELU) Structure and function of such expressive African American Speech Events; (4) Educational Issues connected with the use of AAVE. **Prerequisites:** Open to graduate students enrolled in Language and Literacy Program. Open to graduate students enrolled in other programs or undergraduate students with permission of professor.

EDRD 5541 Teaching Reading Improvement: Secondary, College, and Adult Levels Credits: 3
Classroom and laboratory techniques for upper level reading instruction; including study skills; reading speed and flexibility, and vocabulary improvement.

EDRD 5601 Organizing And Guiding The Reading Program Credits: 3
This course examines, analyzes, and develops effective K-12 schoolwide literacy programs that include intervention support systems for responding to the needs of all students in diverse contexts. In addition, the course will focus on program goals, the roles and responsibilities of personnel, materials, fostering collaborative leadership, and creating a school culture that focuses on literacy. **Prerequisites:** EDRD 5510.

EDRD 5650 Dyslexia and Related Learning Differences Credits: 3
This advanced level graduate language and literacy course analyzes theories of atypical literacy development, with a specific focus on identification and awareness of the ways that language processing affects speech, reading and spelling. Students will explore the coexistence of dyslexia with related learning differences and will plan instructional interventions for students with literacy special needs. **Prerequisites:** EDRD 5510.

**Real Estate (RL-EST)**

**Courses**

RL-EST 5555 Real Estate Forum Credit: 1
Real estate is an interdisciplinary field of study which involves a number of related professions. In this course students will be exposed to the full array of disciplines by listening to, and interacting with, a series of industry leaders. These leaders will be drawn from such fields as architecture, brokerage, construction, development, consulting/appraisal, finance, investment, law and global fields. The course will be open to students from across campus to help sensitize others to the breadth of the discipline and the nature of inquiry and career paths it entails. Students will learn the entrepreneurial spirit that it takes to succeed.

RL-EST 5556 Entrepreneurial Real Estate Process Credits: 3
This interdisciplinary course adopts an entrepreneurial approach to the real estate process spanning concept generation, planning, research, acquisition, design, construction, finance, and investment. The course is open to students from various units across campus. Students will engage in experiential learning to sensitize them to the breadth of inquiry, critical thinking and analysis involved in contemporary real estate. Instruction focuses on creation of optimal spatial solutions for targeted users on targeted sites that are economically viable, sustainable and environmentally responsible. The course emphasizes the importance of focusing on value creation, control and capture across the full life cycle of real estate.

RL-EST 5557 Urban Planning Contexts for Real Estate Decisions Credits: 3
Overview of forces and trends affecting community growth and change history, ecology, economics, demography, design and development pertaining to human settlement patterns and their interrelationship in the urbanization process, especially at the national, regional, townscape and neighborhood level.
RL-EST 5558 Capital Markets Credits: 3
The course examines the influence of capital markets on real estate by covering the structure and operation of the private and public, debt and equity real estate capital markets, as well as derivative markets that involve real estate. A thorough range of topics in equity real estate investment are examined including: private equity markets, private equity deal structuring, public and private real estate investment trusts (REITs), measuring risk and return; structuring optimal portfolios, portfolio valuation issues, valuing publically traded real estate securities, performance evaluation and attribution, and real estate risk management techniques. This course also covers a variety of topics in commercial real estate debt markets including: the structure of the US mortgage finance system, and the valuation of mortgages and commercial mortgage backed securities.

RL-EST 5559 Corporate Real Estate Credits: 3
This course concentrates on the decisions any business faces when it comes to finding a location/s in which to operate their business/s. It deals with financial and subjective decision making models to chose a location that will create the lease occupancy cost to the business owner as well as maximizing the operation of their business. Various modeling techniques will include Lease vs Lease Analysis; Lease vs Own Analysis, Location Factor Analysis standard lease provisions, construction management topics and public-private incentives and the impact on a corporate financial statement under the current regulations of FASB 13.

RL-EST 5571 Real Estate Finance Credits: 3
This course introduces students to the full spectrum of real estate finance and investment analysis. It helps students quantify the financial implications of various real estate decisions for individual properties as well as more strategic decision-making applied to real estate portfolios. Using a combination of experiential and incremental learning students develop the foundation skills necessary to support more advanced concepts and financial theory. The course explores time value of money, law, leverage, underwriting, discounted cash flow, investment analysis, and capital markets. Students also develop advanced modeling skills and learn how to apply state-of-the-art financial packages to support decisions.

Prerequisites: RL-EST 5556.

RL-EST 5572 Global Real Estate Credits: 3
Globalization is one of the key forces that have forced the real estate industry to recognize that while real estate may be located in a specific market, it is subject to a number of national and global forces. In this course, students will learn how globalization of the business, economic and capital markets affects real estate and how global capital flows affect the value of individual investments. Students will also learn how globalization has affected the key players – developers, investors, space users and lenders – and the impact on how they approach real estate on a country-specific and global basis.

Prerequisites: RL-EST 5571.

RL-EST 5573 Real Estate Feasibility and Market Analysis Credits: 3
This course helps students develop entrepreneurial, fact-based approaches to problem-solving and decision support. It incorporates experiential learning to help students deploy quantitative and qualitative approaches that incorporate the perspectives of space users, space producers, and market facilitators. Students learn how to address the goals and objectives of a particular client, while also considering the externalities and impacts such decisions have on the built environment. Students will integrate critical thinking with spatial and financial analytical methods and state-of-the-art tools to quantify market demand and to translate that demand to a spatial solution that is marketable and financially feasible.

Prerequisites: RL-EST 5556.

Co-requisites: ENT 5576.

RL-EST 5574 Real Estate Construction and Development Credits: 3
This course explores principles and techniques of construction project management and real estate development. Adopting a holistic perspective it places the production of real estate in a broader context of product life cycles drawing on systems analysis, planning, programming, budgeting and staffing, controlling major projects. Students apply experiential learning and assume the role of a developer who marshals the resources needed to produce real estate. It explores new projects and renovation of existing space with emphasis on customizing products to fit user needs. The course sensitizes students with emphasis on creating sustainable products that are socially responsible and economically viable.

Prerequisites: RL-EST 5556.

RL-EST 5575 Real Estate Taxation Credits: 3
This course concentrates on factors affecting real estate investments; legal forms of ownership, depreciation, tax basis, tax impacts on exchanges, syndications, real estate securities, and other federal laws affecting real estate.

RL-EST 5576 Real Estate Property and Portfolio Management Credits: 3
This course explores the complexities and integration of property and portfolio management which are critical to the creation, control and capture of real estate value. Students learn how to approach real estate in a more holistic manner by integrating management functions that range from individual property types to portfolios of properties. Students learn how to incorporate marketplace factors in their decisions and apply modern portfolio theory and other tools to construct and manage properties and portfolios in a socially responsible manner. Using experiential methods students learn to apply critical thinking to solve complex property and portfolio management problems.

Prerequisites: RL-EST 5551.
RL-EST 5577 Real Estate Valuation Credits: 3
This course provides students with an understanding of real estate appraisal garnered through a combination of lectures, projects and discussions. Students explore valuation theory, behavioral processes, and the unique nature of the inefficient real estate market. Through hands-on exercises that constitute the experiential learning students apply best practices embedded in the three approaches to value that underpin real estate appraisal: cost, income and sales comparisons. Students also analyze the impact of macroeconomic conditions, supply/demand conditions, capital flows, and investor behavior. Students develop proprietary valuation models and apply appropriate quantitative tools and software for predicting most probable prices.

Prerequisites: RL-EST 5556.

RL-EST 5578 Legal Context of Real Estate Credits: 3
This interdisciplinary course acquaints business and law school students with legal issues in development, ownership and operation of commercial real estate. It also explores the roles of various professionals in real estate transactions. Students will learn legal concepts and terminology, and acquire familiarity with key issues and documents relating to real estate decisions and entrepreneurship, including leasing, insurance, negotiations, construction and architect’s contracts, transactions, regulation, financing and bankruptcy. Students learn how to apply risk management to design and construction contracts, insurance, bonding and indemnification, as well as choice of business entity, income tax planning and negotiation of joint ventures.

RL-EST 5579 Real Estate Capstone Credits: 3
This course is a group simulation of an actual case in real estate that enables students to utilize all of their previous course experience on a real-world case in real estate. It is intended that this case study will enable students to appreciate the multiple facets of real estate, and the need to call upon the tools, concepts and skills taught in the analysis of the highest and best use of the subject property.

RL-EST 5587 Special Topics Credits: 3
Special topics in real estate.

RL-EST 5595 Internship Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community.

RL-EST 5597 Real Estate: Independent Study Credits: 1-6
Independent study and research in areas of special interest under individual faculty direction.

RL-EST 5899 Required Graduate Enrollment Credit: 1

Religious Studies (RELIG-ST)

Courses

RELIG-ST 5500 Special Topics In Religious Studies Credits: 1-3
Special topics in religious studies. The focus of the course will vary by semester and instructor.
RELIG-ST 5500A Special Topics In Religious Studies Credits: 1-3
RELIG-ST 5500B Special Topics In Religious Studies Credits: 1-3
RELIG-ST 5500C Special Topics In Religious Studies Credits: 1-3
RELIG-ST 5500D Special Topics in Religious Studies Credits: 1-3
RELIG-ST 5500E Special Topics In Religious Studies Credits: 1-3
RELIG-ST 5500F Special Topics In Religious Studies Credits: 1-3
RELIG-ST 5501A Religion In America Credits: 3
An in-depth examination of selected aspects of the history of religions in America from the colonial period to the present. Special emphasis will be given to methodological issues in the study of American religious history.
RELIG-ST 5502 Religion & Colonialism in Latin America Credits: 3
The study of selected aspects of the history of religions in the Americas. Primary focus is on the complex ways that European, Native American Africans religions helped to structure and negotiate the experiences and the significance of cultural contact and colonialism through lived worlds of meaning.
RELIG-ST 5503 Visions, Dreams, and Prophesies as Religious Phenomena Credits: 3
This course explores the way visions, dreams, and prophesies have acquired religious significance in Western and non-Western contexts from the ancient to the present.
RELIG-ST 5504 Gender and Religion Credits: 3
Cross-cultural and comparative study of how religious groups create and transmit gender roles and expectations.
RELIG-ST 5506 The History of Christianity to the Middle Ages Credits: 3
This course examines the historical and theological development of Christianity from its origins to the High Middle Ages. The main themes follow the mechanisms and conditions shaping Christianity's expansion into a major social, institutional and intellectual force with a focus on patterns of crisis and reform. This course is based on the study of primary sources (both texts and objects) and modern scholarship.
Cross Listings: HISTORY 5506A.

RELIG-ST 5507 The History of Christianity from the Middle Ages to the Present Credits: 3
This course examines the historical and theological development of Christianity from the High Middle Ages to the present. The main themes follow the mechanisms and conditions shaping Christianity's expansion into a major social, institutional and intellectual force with a focus on patterns of crisis and reform. This course is based on the study of primary sources (both texts and objects) and modern scholarship.
Cross Listings: HISTORY 5507A.

RELIG-ST 5508 Anthropology of Religion Credits: 3
This course explores the ways anthropologists have gone about studying religion from the opening decades of the 20th century to present. The course introduces students to the diversity of human religious expression and experience through anthropological literature and to the diversity of anthropological expression especially as it has been revealed in social scientific studies of religious life. The course is designed to generate a critical dialogue about the special role that religion has played in the ongoing anthropological engagement with "other" societies and cultures over time.

RELIG-ST 5510 Religions Of The World Credits: 3
This course is designed to introduce graduate students to the major religions of the world, as well as to selected small-group religions. Our goal will be to learn to appreciate the similarities and differences in the structure and history of these religions. A primary focus will be on using the categories of the history of religions to examine and analyze the various dimensions of religion (e.g., historical, sociological, ritual, mythological, aesthetic). In addition, methodological issues of comparison will be addressed.

RELIG-ST 5567 Myth and Ritual Credits: 3
Myth and "ritual" have long been fundamental categories in the study of religion. This course will briefly survey some of the major theories and approaches to the study of myth and ritual from the Enlightenment to the present. Will not only trace the shifting meanings of "myth" and "ritual," but will critically evaluate the utility of diverse approaches to the study of religious phenomena designated by these terms. Reading will include theoretical works, as well as selected case studies.

RELIG-ST 5584RS Sacred Narratives And Texts Credits: 3
This course will study the "social lives" of sacred narratives and texts as they circulate within religious communities. Among the topics to be studied are methods of exegesis in different religious traditions, orality and literacy (including the reorlization of written texts), the canonization process, the emergence of interpretive specialists, text as amulets, reading and meditative practices and techniques, and narratives and the arts. The course is comparative, cross-cultural, and interdisciplinary in nature.

RELIG-ST 5586RS Methodological Approaches To The Study Of Religion Credits: 3
This course examines the various disciplines that undertook the critical, objective study of religion beginning in the second half of the nineteenth century and continuing into the present. The course examines how the disciplines of the social sciences and humanities emerged in the last century and how the study of religion emerged from its roots in Jewish scholarship and Christian theology to be included under the umbrella of the humanities and social sciences. The historical development of religious studies as a historical and intellectual contexts.

RELIG-ST 5587 Contemporary Approaches to the Study of Religion Credits: 3
A survey of major scholars and theologians of religion from 1950 to the present, with an emphasis on significant shifts in the field.

RELIG-ST 5587RS Research Seminar Credits: 3
Students in this course will produce a major research paper under the direction of the instructor: a self-contained thesis chapter, an article for publication or the equivalent.

RELIG-ST 5592 Cults Sects, And New Religious Movements Credits: 3
In this course, students will experience: (a) a variety of methods for analyzing and understanding new religious movements in society: sociological, historical, and textual; (b) an introduction to the broad spectrum of religious beliefs which exist (and flourish) outside the cultural mainstream; and (c) an introduction to some of the means by which dominant religious and secular culture has confronted the presence of NRM-s-e.g., deprogramming exit counseling, and theologically oriented countermovement.

RELIG-ST 5593 Sex And Religion Credits: 3
The course is designed to highlight issues related to the various ways in which religions of the world have integrated, embraced, or repressed one of the basic human experiences sexual expression. This is an elective course designed for graduate students with Religious Studies either as their coordinating or co-discipline. This is an advanced seminar, and as such does assume a certain measure of theoretical familiarity and background of study.

RELIG-ST 5594RS Death In The History Of Religions Credits: 3
As a biological "fact," death would appear to be a human universal. Yet, human beings have imagined—and, thus experienced—the meaning of death in many diverse ways in different cultures and over time. This course explores the conceptualization and representation of death and dying, as well as the ritual activities surrounding death, found in selected religious communities. The goals are to gain insight into how people have sought to (re)create a world of meaning in the face of death and to gain a critical perspective on our own contemporary situation.
RELIG-ST 5595RS Time And Space In The History Of Religions Credits: 3
Time and space are essential components of the lived worlds of human beings, yet the cultural and historical constructions of these are remarkably diverse and, moreover, are subject to change. This course is a cross-cultural, interdisciplinary, and comparative exploration of the constructions and experiences of time and space found in selected religious communities and historical periods. In addition, it investigates the pivotal role the categories of "sacred and profane time and space" have played in theorizing religion and in the study of religious myths and rituals in the modern period. Time and space are essential components of the lived worlds of human beings, yet the cultural and historical constructions of these are remarkably diverse and, moreover, are subject to change. This course is a cross-cultural, interdisciplinary, and comparative exploration of the constructions and experiences of time and space found in selected religious communities and historical periods. In addition, it investigates the pivotal role the categories of "sacred and profane time and space" have played in theorizing religion and in the study of religious myths and rituals in the modern period.

RELIG-ST 5596RS Body In The History Of Religions Credits: 3
The human body is the site of extensive imaginal and ritual activities in all religious traditions. This course explores some of the diverse ways religious communities have imagined and experienced the human body, as well as how the body had been manipulated and worked on in an effort to transform the human situation in the world.

RELIG-ST 5597RS Non-Thesis Research/Reading Credits: 1-6
Individual direction of student reading or research by selected, consenting faculty. This course can be taken only when faculty supervision is unavailable in colloquia or seminars.

RELIG-ST 5598RS Seminar In The History Of Religions Credits: 3
Advanced graduate seminar on a selected topic or problem in the History of Religion. Topic varies, but the seminar will have a methodical or theoretical focus. May be repeated for credit when topic is different.

RELIG-ST 5680RS Doctoral Colloquium Credits: 3
This course will examine the writings and theories of major scholars in a particular area of Religious Studies. The authors, works and intellectual currents which form the basis of the colloquium will vary from semester to semester depending upon the professor’s expertise and design for the course.

RELIG-ST 5687RS Doctoral Research Seminar Credits: 3
Students in this course will produce a major research paper under the direction of the instructor. This shall consist of a self-contained chapter of the dissertation or a work of publishable quality. May be repeated for credit.

RELIG-ST 5697RS Doctoral-Level Independent Readings Credits: 1-6
Individual reading under the supervision of members of the Religious Studies Doctoral faculty and adjuncts in preparation for the Comprehensive Examination for the Ph.D.

RELIG-ST 5699RS Dissertation Credits: 1-15
Course credits in dissertation.

RELIG-ST 5899 Required Graduate Enrollment Credit: 1

Research and Psychology (EDUC-R&P)

Courses
EDUC-R&P 5502 Advanced Educational Psychology Credits: 3
Critical examination of the contributions of psychological principles and findings to the field of education.

EDUC-R&P 5505 Statistical Methods I Credits: 3
Non-theoretical approach to statistical procedure, including introduction to simple analysis of variance.

EDUC-R&P 5508 Principles And Methods Of Research Credits: 3
Introduction to the analysis of research literature including types of research, methodology, design and data analysis.

EDUC-R&P 5510 Child Behavior And Development Credits: 3
Growth, maturation, and learning processes in children.

EDUC-R&P 5512 Adolescent Development and the School Credits: 3
An overview of development from preadolescence to adulthood, focusing on major theories and aspects of development, contemporary critical issues of the transitions from childhood to adolescence and into adulthood, and the role of professional educators in facilitating positive development.

EDUC-R&P 5513 Life Span Human Development Credits: 3
This course introduces students to the theories and research of biological, cognitive, social and personality development across the lifespan, within the layers of context of people’s lives. Special attention is given to the role in development of social class, gender, ethnicity and culture.

EDUC-R&P 5522 Principles Of Testing Credits: 3
Measurement theory, uses and limitation of assessment procedure.

EDUC-R&P 5555 Statistical Methods II Credits: 3
Non-theoretical approach to statistical procedure, including introduction to factorial ANOVA and multiple regression.

Prerequisites: EDUC-R&P 5505 or an equivalent introductory statistics course.
EDUC-R&P 5564 Instructional Design Credits: 3
Overview of learning theories and pedagogical models as related to the principles and methods of instructional design. Emphasis on the planning, design, implementation and evaluation of instructional systems including focus on technology integration.

EDUC-R&P 5575 Internship Credits: 3-16
Applied experiences in a planned, supervised program in research or educational psychology.

EDUC-R&P 5589 Special Topics In Education Credits: 1-6
A course designed to deal with a topic in educational research or educational psychology which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed on the semester bulletin.

EDUC-R&P 5589AD Special Topics in Education Credits: 1-6
EDUC-R&P 5589AT Special Topics in Education Credits: 1-6
EDUC-R&P 5589CH Special Topics in Education Credits: 1-6
Special Topics in Education

EDUC-R&P 5589CP Special Topics In Education Credits: 1-6
EDUC-R&P 5589DB Special Topics In Education Credits: 1-6
A course designed to deal with a topic in educational research or educational psychology which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed on the semester bulletin.

EDUC-R&P 5589HL Special Topics in Education Credits: 1-6
EDUC-R&P 5589IS Special Topics in Education Credits: 1-6
EDUC-R&P 5589LP Special Topics in Education Credits: 1-6
EDUC-R&P 5589PE Special Topics In Education Credits: 1-6
EDUC-R&P 5589PR Special Topics In Education Credits: 1-6
EDUC-R&P 5589SC Special Topics in Education Credits: 1-6
EDUC-R&P 5589SE Special Topics In Education Credits: 1-6

EDUC-R&P 5590 Individual Studies Credits: 1-6
Review of the research and trends relative to selected problems in educational research or psychology.

EDUC-R&P 5605 Quantitative Analysis I: Regression And Analysis Of Variance Credits: 3
This graduate level statistics course for students in education and the behavioral sciences provides a strong conceptual understanding of two major statistical procedures within the context of the general linear model: Multiple regression and numerous analysis of variance (ANOVA) models. Students will learn to select appropriate statistical software, and report the results of their analyses in the format of the American Psychological Association.

Prerequisites: EDUC-R&P 5505 and EDUC-R&P 5508 (or PSYCH 302WI).

Cross Listings: PSYCH 5516.

EDUC-R&P 5606 Quantitative Analysis II : Multivariate Data Analysis Credits: 3
This graduate level statistics course for students in the behavioral sciences and education provides a strong conceptual understanding of advanced topics in regression (interaction effects, logistic regression, path analysis) and various multivariate techniques (MANOVA, canonical correlation, factor analysis). Students will complete a series of data based projects that allow them to demonstrate their skills in analysis, reporting, and interpretation of findings.

Prerequisites: EDUC-R&P 5605 (or PSYCH 5516) and EDUC-R&P 5508 (or PSYCH 302WI).

Cross Listings: PSYCH 5517.

EDUC-R&P 5608 Introduction To Graduate Research Credits: 3
This course provides an introduction to qualitative and quantitative research methods. It is designed for students beginning their study in a doctoral program.

Prerequisites: EDUC-R&P 5508 or its equivalent and doctoral student status.

EDUC-R&P 5609 Development and Evaluation of Assessment Tools Credits: 3
This survey course examines test theories, construction, and measurement theories. Within the context of a variety of conceptual frameworks and examples, students become knowledgeable about the various purposes, approaches, and computer software tools for measurement.

Prerequisites: EDUC-R&P 5606 or PSYCH 5517.

Cross Listings: PSYCH 5538.
EDUC-R&P 5611 Structural Equation Modeling Credits: 3
Students will learn core techniques in structural equation modeling, including: path analysis, confirmatory factor analysis, structural regression models; and be introduced to advanced topics such as multi-group SEM and latent growth models. There will be multiple lab sessions using appropriate computer applications.
Prerequisites: EDUC-R&P 5606 (or PSYCH 5517) and EDUC-R&P 5609 (or PSYCH 5538).

EDUC-R&P 5612 Applied Quantitative Research in Education Credits: 3
This class provides an in-depth examination of experimental and non-experimental quantitative research techniques, with a focus on their application in educational research. Students develop a proposal for a quantitative research study, including review of literature, development of research questions and hypotheses; and selection of appropriate research design, data collection techniques, and statistical analyses.
Prerequisites: One semester of statistics at the doctoral level.

EDUC-R&P 5613 Hierarchical Linear Models Credits: 3
Students will be introduced to hierarchical linear modeling techniques. Foundational topics include the rationale for using hierarchical linear models, issues related to assumptions and data screening, and a dissection of the components of a two-level organizational effects hierarchical linear model. Special topics to be discussed include growth modeling, three-level models, dyadic models, and models with categorical outcome variables (i.e., hierarchical generalized linear models). Multiple class sessions will be devoted toward use of software to build and analyze these models.
Prerequisites: EDUC-R&P 5606 and EDUC-R&P 5609.

EDUC-R&P 5615 Qualitative Research Theory & Design Educational Setting. Part 1 Credits: 3
Students will be introduced to qualitative research theory and design.
Prerequisites: EDUC-R&P 5505 and EDUC-R&P 5508.

EDUC-R&P 5616 Qual Data Collection And Analysis In Educational Settings. Part 2 Credits: 3
Students will gain experience in qualitative data collection and analysis.
Prerequisites: EDUC-R&P 5615.

EDUC-R&P 5625 Program Evaluation For Education & Social Credits: 3
Program evaluation is an applied research area that focuses on providing summative and formative data about the progress of an organization or program. This doctoral seminar will focus on learning to identify the goals, objectives and assumptions inherent in a program, and on designing a methodology to assess progress towards the goals. All students will develop a comprehensive evaluation plan for a program of their choice.
Prerequisites: EDUC-R&P 5505, EDUC-R&P 5522, and EDUC-R&P 5508 or EDUC-R&P 5608.

EDUC-R&P 5639 Educational Psychology: Focus on Teaching in Higher Education Credits: 2-3
An introduction to theories and principles from educational psychology as they relate to learning, motivation, assessment, and instruction.
Prerequisites: Doctoral Student Status.

EDUC-R&P 5640 Apprenticeship And Conference In College Training Credits: 1-3
Apprenticeship experience in preparing, conducting, and evaluating college teaching under the direction of and in conference with supervising professors.
Prerequisites: EDUC-R&P 5639.

EDUC-R&P 5690 Special Problems Credits: 1-6
Individual studies; thesis exploration, special reading.
EDUC-R&P 5698 Dissertation In Educational Research & Psychology Credits: 1-16
Dissertation In Educational Research Psychology

Research Methodology - Dentistry (RES-ME)

Courses
RES-ME 5700 Introduction To Research Methodology Credits: 2-3
This lecture/discussion course will facilitate student's understanding of terminology and key concepts of research methodology and design. Assigned exercises are designed to demonstrate application of research design principles, and to increase advanced education students' competency in evaluating and planning scientific studies. This knowledge is indispensable for conducting meaningful research in advanced education certificate, masters of doctoral level programs.
RES-ME 5703 Thesis Writing Credit: 1
The methods of preparing, organizing, and presenting research findings using scientific writing format will be reviewed for completing a thesis. This course is required for the Master of Science degrees in Oral Biology and Dental Hygiene Education.
RES-ME 5704 Introduction to Biostatistics Credits: 2-3
A lecture/seminar course required for students pursuing a master's degree. This course focuses on an in-depth coverage of statistical designs commonly found in dental research, statistical techniques associated with these designs, application to them via the use of a computer based statistical software analysis package, and the interpretation of statistical tests.

Prerequisites: RES-ME 5700.

RES-ME 5706 Dissertation Writing Credit: 1
Scientific writing format appropriate for preparing a dissertation will be reviewed. This course is required for the Interdisciplinary Ph.D. degree in Oral Biology.

**Saxophone (SAXOPH)**

**Courses**

SAXOPH 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

**Cross Listings:** SAXOPH 300.

SAXOPH 5500A Graduate Saxophone-Secondary Credits: 2
SAXOPH 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

SAXOPH 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

SAXOPH 5500JA Graduate Applied Jazz Studies Credits: 2
One-hour lesson weekly. Jury examination is required.

**Prerequisites:** Graduate standing.

SAXOPH 5500JB Special Applied Jazz Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. A jury for comments only may be held at the discretion of the faculty.

**Prerequisites:** Graduate standing.

SAXOPH 5500JC Applied Jazz Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied jazz study in an area other than, and in addition to, their primary performance study.

**Prerequisites:** Graduate standing.

SAXOPH 5501 Graduate Saxophone - Masters Performance Credits: 4
SAXOPH 5601 Graduate Saxophone - Doctoral Performance Credits: 4

**School of Graduate Studies (SGS)**

**Courses**

SGS 5501 Disability and Community Support Credits: 3
This is an academic service-learning course that will integrate 15 classroom contact hours with 60 service hours within a framework of Disability Studies.

**Prerequisites:** LAW 8815S.

SGS 5651A Preparing Future Faculty I Credit: 1
Course is the first in a 6-course series focusing on teaching at a college or university and exploring the opportunities at, and differences among, various types of institutions of higher education. Course development and exploring the various roles and responsibilities of university faculty members are the emphases of the first two courses.

**Prerequisites:** Year I Preparing Future Faculty Fellow or doctoral student recommended by two faculty members in student’s doctoral program.

SGS 5651B Preparing Future Faculty II Credit: 1
Course is the second in a 6-course series focusing on teaching at a college or university and exploring the opportunities at, and differences among, various types of institutions of higher education. Course development and exploring the various roles and responsibilities of university faculty members are the emphases of the first two courses.

**Prerequisites:** SGS 5651A.
SGS 5652A Preparing Future Faculty III Credit: 1
Course is the third in a 6-course series focusing on teaching at a college or university and exploring the opportunities at, and differences among, various types of institutions of higher education. The emphasis in SGS 5652A and SGS 5652B is on the teaching/classroom experience including using technology effectively. Students may enroll simultaneously in SGS 5651A and SGS 5652A.
Prerequisites: Year 2 Preparing Future Faculty Fellow, or recommendation by two faculty members in student’s doctoral program.

SGS 5652B Preparing Future Faculty IV Credit: 1
Course is the fourth in a 6-course series focusing on teaching at a college or university and exploring the opportunities at, and differences among, various types of institutions of higher education. The emphasis in SGS 5652A and SGS 5652B is on the teaching/classroom experience with a focus on using technology effectively. Students who have completed SGS 5651A and SGS 5652A may enroll simultaneously in SGS 5651B and SGS 5652B.
Prerequisites: SGS 5652A.

SGS 5653A Preparing Future Faculty V Credit: 1
Course is the fifth in a 6-course series focusing on teaching at a college or university and exploring the opportunities at, and differences among, various types of institutions of higher education. The emphasis in SGS 5653A and SGS 5653B is on academic collaboration and preparing for the academic job market. Students may enroll simultaneously in SGS 5652A and SGS 5653A.
Prerequisites: EDUC-R&P 5639 (or equivalent) and either Preparing Future Faculty Fellow or recommendation by two faculty members in student’s doctoral program.

SGS 5653B Preparing Future Faculty VI Credit: 1
Course is the last in a 6-course series focusing on teaching at a college or university and exploring the opportunities at, and differences among, various types of institutions of higher education. The emphasis in SGS 5653A and SGS 5653B is on academic collaboration and preparing for the academic job market. Students who have completed SGS 5652A and SGS 5653A may enroll simultaneously in SGS 5652B and SGS 5653B.
Prerequisites: SGS 5653A.

Social Sciences (SOC-SCI)

Courses

SOC-SCI 5610 Philosophy Of Social Science Credits: 3
This course examines the development of the philosophy of science since the end of the 19th century. In this regard, Positivism, Conventionalism, and Realism as the three major conceptions of science will be studied and their significance as philosophical foundations of the social sciences will be assessed. Particular attention will be given to the emerging philosophy of science (i.e., Scientific Realism) which has profoundly challenged the more established Positivism.

SOC-SCI 5621 Consensus Social Theory Credits: 3
This course explicates the connections between mainstream (or orthodox) approaches in the various social sciences, which can be collectively viewed as Capitalist interdisciplinary social theory, Explication entails positivist philosophy of science, classic liberal political philosophy, neo-classical economics, pluralist political science, human ecology and functionalist sociology.
Prerequisites: SOC-SCI 5610.

SOC-SCI 5622 Pragmatism & Evolutionary Social Theory Credits: 3
Drawing on the classical pragmatism of Peirce and Dewey as the philosophical framework for inquiry, and the institutional economics of Veblen, Commons, Mitchell, and Ayres, this course develops Evolutionary Social Theory as a paradigm for interdisciplinary social science.

SOC-SCI 5630 Seminar in Research Methodology Credits: 3
This course assists students with the establishment of a framework for their dissertation research that represents a substantive integration of their coordination discipline with the SSC program. The ultimate goal of the seminar is a defensible dissertation proposal for each student. Includes opportunity for participation by supervisory committee members.
Prerequisites: SOC-SCI 5610, SOC-SCI 5621, and 1 Critical Theory course.

SOC-SCI 5641 History of a Social Science Discipline Econ Credits: 3
The course examines the social and political development of economics that underpins the development of economic theory in the 20th century.
Prerequisites: SOC-SCI 5610.

SOC-SCI 5690 Special Doctoral Reading in Social Science Credits: 1-3
Special Research Topic in Interdisciplinary Social Science at The Doctoral Level

SOC-SCI 5690A Special Topics Credits: 1-3
SOC-SCI 5690B Special Topics Credits: 1-3
SOC-SCI 5690C Special Topics Credits: 1-3
SOC-SCI 5899 Required Graduate Enrollment Credit: 1

Social Work (SOC-WK)
Courses

SOC-WK 5510 Foundation Field Practicum I Credits: 3
Students spend 16-hours weekly in a generalist field practicum setting under MSW supervision. Participation in a 12-hour integrated field seminar on campus led by faculty is required.
Prerequisites: SOC-WK 5530 or SOC-WK 5531.

Co-requisites: SOC-WK 5532.

SOC-WK 5511 Foundation Field Practicum II Credits: 3
Students continue the field practicum experience from SOC-WK 5510 and participation in the integrated seminar on campus. Focus on generalist knowledge, values, and skills.
Prerequisites: SOC-WK 5510 and SOC-WK 5532.

Co-requisites: SOC-WK 5533.

SOC-WK 5512 Advanced Field Practicum I Credits: 3
Students are placed in a field setting in their chosen field-of-practice concentration approximately 16 hours per week under the supervision of an MSW field instructor. One concentration seminar must be taken prior to or concurrently with entering this field placement.
Co-requisites: SOC-WK 5540.

SOC-WK 5513 Advanced Field Practicum II Credits: 3
Students complete a final semester in their field-of-practice concentration agency setting approximately 16 hours weekly under MSW supervision.
Co-requisites: SOC-WK 5541.

SOC-WK 5530 Human Behavior: Individuals In The Social Environment Credits: 3
This theory course focuses on the interactional context of human behavior essential to all social work practice. A variety of perspectives are considered in the understanding of the individual; developmental, ecosystemic, biopsychosocial, traditional, and alternative. Diversity and resiliency are the are key course concepts.

SOC-WK 5531 Human Behavior: Families, Groups, Organizations, And Communities Credits: 3
This theory course applies social work’s ecosystemic framework to the understanding of human behavior in families, groups, organizations, and communities. Knowledge and applied theories and paradigms are examined that honor social justice, human diversity, strengths/assets, and community-building to enhance effective social work practice.
Prerequisites: SOC-WK 5530.

SOC-WK 5532 Foundations Of Social Work Practice I Credits: 3
This course examines the fundamental knowledge, values, and skills of generalist social work practice with a focus on person-in-environment. Course topics include values and ethics, collaborative approaches to helping, stages of the helping process, and beginning practice skills with at-risk populations.
Co-requisites: SOC-WK 5510.

SOC-WK 5533 Foundations Of Social Work Practice II Credits: 3
This second generalist social work practice course examines effective helping approaches with small groups and communities of identity and/or place. The course also introduces values and working styles for professional practice in organizations.
Prerequisites: SOC-WK 5532 and SOC-WK 5510.

Co-requisites: SOC-WK 5511.

SOC-WK 5534 Social Welfare Programs And Policies Credits: 3
This course examines social policies that direct current social service trends at local, state, and federal levels. Students learn a model of analysis that examines the context in which policy decisions are made and the effects that social service programs and policies have on people's lives.
SOC-WK 5535 Social Welfare Policy Practice Credits: 3
This course prepares students with a social justice/empowerment orientation and the knowledge, skills and values needed to become an effective policy advocate, particularly with people who experience the effects of poverty, discrimination, exclusion, and oppression.
Prerequisites: SOC-WK 5534.

SOC-WK 5536 Social Work Research Methods Credits: 3
This course introduces students to the fundamental knowledge and skills of social work research such as practice evaluation, program planning, and other facets of professional social work practice. Emphasis on application of social research methods in actual practice situations will be used to assist students in skill development.
SOC-WK 5537 Quantitative Social Work Research Methods Credits: 3
This course is designed to prepare graduate level students to develop a comprehensive understanding of statistical method application to social work research. Students will gain a basic understanding of the research and statistical procedure that are needed for clinicians/researcher to operate within the field today. Students will become proficient in reading analyzing and assessing the results of social work publications.
Prerequisites: SOC-WK 5536.

SOC-WK 5538 Advanced Standing Seminar: Contemp Trends In Social Work Practice Credits: 3
This required seminar is designed for BSW's entering the Advanced Standing Program and serves to update and integrate social work practice approaches with contemporary perspectives of human behavior in the social environment.
Prerequisites: Advanced Standing Student.

SOC-WK 5539 Adv Standing Sem: Emerging Iss In Soc Welfare Policy And Research Credits: 3
This required seminar in the Advanced Standing Program examines emerging policy issues and research developments in the field. Students prepare to choose a field-of-practice concentration and to enter the Advanced-level year of study.
Prerequisites: Advanced Standing Student.

SOC-WK 5540 Advanced Social Work Practice I Credits: 3
This course prepares students with an advanced generalist social work perspective and to evaluate and integrate theory, values, and skills for assessment and direct practice with complex case situations in a rapidly changing service environment.
Prerequisites: Completion of foundation year.

Co-requisites: SOC-WK 5512.

SOC-WK 5541 Advanced Social Work Practice II Credits: 3
This course extends the advanced generalist model of social work practice to working with challenging families and small groups. The course introduces leadership, organizational, and management competencies for professional practice in social service agencies and skills for coalition-building and collaboration in communities.
Prerequisites: Completion of foundation year.

Co-requisites: SOC-WK 5513.

SOC-WK 5542 Social Services With Older Adults Credits: 3
This course provides an overview of social service practice with older adults. Students examine population demographics, identify normal and abnormal aspects of aging, and examine methods, paradigms, and approaches to effective advanced generalist practice in treatment and community settings.
Prerequisites: Completion of foundation year.

SOC-WK 5544 Families, Communities and Child Welfare Credits: 3
This course examines child centered, family centered and neighborhood based approaches to child welfare.
Prerequisites: Completion of Social Work Foundation Sequence.

SOC-WK 5546 Mental Health and Substance Abuse in Social Work Practice Credits: 3
This course examines current practice approaches and policy/research issues in mental health and in the dually diagnosed. Students focus on service delivery systems of care with a variety of adult populations from an empowerment perspective.
Prerequisites: Completion of foundation year.

SOC-WK 5547 Grief and Loss in Social Work Practice Credits: 3
This course provides a comprehensive study of grief and loss from a professional social work perspective that includes current theories, evidence-based frameworks, and intervention strategies from a strengths-based perspective. The course will address many forms of special losses, such as suicide, homicide, HIV/AIDS, war-related grief, bankruptcy, divorce and other life transitional events that may or may not involve death and dying.
Prerequisites: Completion of all Foundation-level courses.

SOC-WK 5550 Program Evaluation and Management Credits: 3
This course is designed to train students in evaluation of direct practice, community needs and underserved populations. Students develop a new or enhanced model of service delivery to address needs. Strategic planning, management in theories and grant writing and major components of this course.
Prerequisites: Completion of foundation year.

SOC-WK 5560 Psychopathology: A Competency Based Assessment Model in Social Work Practice Credits: 3
The DSM will be used in conjunction with a competency-based assessment model that includes an ecological approach and systems theory to determine what biopsychosocial factors have contributed to the client’s problem. The multi-axial system becomes a tool to gather information, that supports the competency-based assessment.
Prerequisites: Foundation Coursework.
SOC-WK 5561 Social Work in Health Care Credits: 3
This course builds on a foundation of direct social work practice in the context of the health care systems in the United States. The social work role in the medical model will be analyzed along with the roles of nursing and allied health professionals. Collaborative practice will be discussed.
**Prerequisites:** Completion of Foundation Social Work Courses and a practicum experience.

SOC-WK 5562 Family Organization and Development Credits: 3
This course examines developmental and structural theory that supports family-centered social work practice. Within this theory, the course explores how culture and social class shape family values, beliefs and behavior and how these are manifest in family structure as the family responds to developmental tasks in the context of its community.
**Prerequisites:** Completion of Social Work Foundation Sequence.

SOC-WK 5563 Life Span Issues in Developmental Disabilities Credits: 3
The need for interdisciplinary process in the human services sector, which supports inclusiveness and quality of life of individuals, is covered. The course covers cultural competence, person-centered and community-based application of services for their implications in planning and delivery of services.
**Prerequisites:** Students in good standing with the Master of Social Work Program, registered with the Interdisciplinary Leadership in Disability Studies graduate certificate Program.

SOC-WK 5564 Advanced Group Interventions in Social Work Credits: 3
This course provides both a didactic and experiential introduction to advanced group therapy for social work practice, explores the therapeutic factors, norms and their creation, the role of leader and termination as a group experience.

SOC-WK 5565 Systemic Oppression and Social Justice Advocacy Credits: 3
This course presents theoretical concepts of oppression, privilege, and social justice advocacy. Students will examine their social principles and their personal experiences. Social work’s core values of social practice will be critically analyzed.
**Prerequisites:** Completion of Social Work Foundation Sequence.

SOC-WK 5566 Family and Community Violence Credits: 3
Students will consider the sources of interpersonal violence. The causes and forms of community and family violence will be examined in relationship to the impact of individuals, families and communities. Prevention and intervention models will be studied and developed.
**Prerequisites:** Completion of Social Work Foundation Sequence.

SOC-WK 5567 Collaborative Strengths-Based Practice: Multi-System Interventions Credits: 3
This course examines collaborative models of strengths-based, family-centered social work practice that receive significant funding from SAMHSA NIH. Two models are explored in depth to compare and contrast program implementation when a model is based in values and philosophy vs. a theory-based model. The theory of change for each model is closely examined, as well as research supporting it and related ethical questions regarding assessment and intervention.

SOC-WK 5568 School Social Work Practice Credits: 3
Students will learn the knowledge and skills required for performing roles and functions of school social work in K-12 settings. They will apply social systems and the strengths perspectives within the context of school as organizations interconnected to community environments.

SOC-WK 5569 Core Concepts of Child and Adolescent Trauma Credits: 3
This course prepares students for trauma-informed, evidence-based practice. Based on core concepts, the course uses a problem-based learning approach through the use of in-depth case studies.
**Prerequisites:** All MSW Foundation Courses.

SOC-WK 5575 Advanced Generalist Community Practice Credits: 3
This seminar covers community social work practice at the advanced level addressing values, knowledge and skills essential for community social change. Models of community practice are addressed to facilitate student skill applicant in social planning, community development, and community collaboration strategies. Each model requires knowledge of large systems practice.
**Prerequisites:** Completion of 30 hrs or Required Foundation.

SOC-WK 5577 Sexuality and Social Work Practice Credits: 3
This course is a survey of issues that will provide knowledge for integrating human sexuality across a lifespan in the practice of social work. Using a biopsychosocial perspective, emphasis will be placed on historical, political, social, cultural, familial and individual differences in sexual and reproductive attitudes, values and behaviors.
**Prerequisites:** You must be a student in the Master of Social Work program to take this course.

SOC-WK 5579 Integration Seminar In Advanced Generalist Practice Credits: 3
This course, taken in the last semester, serves as final practice of advanced generalist competencies in direct practice, organization/ management, social action/community building and advocacy, research/evaluation and leadership skills. Students prepare a major project for presentation.
**Prerequisites:** All other program requirements must be completed or concurrent with Soc-Wk 5579
SOC-WK 5580 Special Topics In Social Work Credits: 1-3
These seminars are designed to examine relevant and innovative areas emerging in social work practice which are not available in the regular course offerings. Topics, instructors, and prerequisites are listed in the semester bulletin.
**Prerequisites:** Completion of foundation year.

SOC-WK 5580D Special Topics In Social Work Credits: 1-3

SOC-WK 5590 Readings And Investigations In Social Work Credits: 1-3
Under the direction of a faculty member, individual students may pursue an in-depth area of study in generalist social work practice, including a research project of the student’s choice.

SOC-WK 5899 Required Graduate Enrollment Credit: 1
One Hour Course required to remain continuously enrolled while the student finishes requirements for the Social Work degree.
**Prerequisites:** Permission of the Department

**Sociology (SOCIOL)**

**Courses**

**SOCIOL 5501 Social Theory I Credits: 3**
Examines the development of social theory in Europe up to the beginning of the twentieth century, with a focus on its intellectual precursors of social theory, debates over the nature of society, and controversies over the distinct features of sociology as an emerging academic discipline. The major perspectives covered include the intellectual origins of sociological thought in Great Britain, France, and Germany, and the debates as reflected in the writings of Karl Marx, Emile Durkheim, Max Weber, and Georg Simmel.
**Prerequisites:** undergraduate course in Sociological Theory.

**SOCIOL 5502 Social Theory II Credits: 3**
Examines the major sociological theories developed during the twentieth century and contemporary debates over the nature of society and the nature of our knowledge about society. Theories to be examined include behaviorism, symbolic interactionism, structural functionalism, phenomenology, conflict theory, postmodernism, those that attempt to integrate social agency and structure, and feminist theory.
**Prerequisites:** SOCIOL 5501.

**SOCIOL 5503 Controversies In Contemporary Social Theory And Practice Credits: 3**
This course critically examines central issues in contemporary debates among social theorists over the nature of society and how it should be studied.

**SOCIOL 5510 Sociological Methods I Credits: 3**
A survey of methods used by sociologists: selection and formulation of problem, research design, survey research, participant observation, sampling, reliability and validity, use of scales, and data analysis.
**Prerequisites:** SOCIOL 362 (or equivalent).

**SOCIOL 5511 Sociological Methods II Credits: 3**
Quantitative research is the primary focus of the course; emphasis is placed on problem formulation; research design; sampling procedures; questionnaire construction and interviewing techniques; data collection; problems of scaling, validity and reliability; uses of secondary data sets; data analyses and report writing.
**Prerequisites:** SOCIOL 362 (or equivalent).

**Cross Listings:** CJC 5511.

**SOCIOL 5516 Intermediate Statistics Credits: 3**
A systematic development of the logic and practice of selected statistical methods used in sociological research. Included are analysis of variance and covariance, regression analysis, multiple contingency, and non-parametric tests.
**Prerequisites:** SOCIOL 263.

**Cross Listings:** CJC 5516.

**SOCIOL 5530 Anthropology Of Gender Credits: 3**
This class explores theories of the social construction of gender in cross-cultural contexts. It will also explore global issues of diversity, local and international politics, the economy and work, education, etc.

**SOCIOL 5531 Feminist Theories Credits: 3**
This class introduces the major feminist theories and their primary authors over the last 200 years. The class takes both an historical (we begin with two millennia of male-centered theories about women) and a conceptual approach (theories are grouped by common ground) and familiarizes the student with both the historical processes that necessitate feminist theories as well as with the breadth of the historically and currently available scholarship. Graduate students are expected to fulfill all undergraduate requirements at graduate-level quality, including independent research components; in addition, graduate students are required to be prepared to lead class discussions.
**Prerequisites:** WGS 201.
SOCIOL 5534 Spatial Thinking in Social Science Credits: 3
This course will review ways in which social scientists have incorporated the concepts of space, place, and distance into their theories and research. Readings will be drawn from interdisciplinary work in the areas of urban sociology, criminology, health and demography that deal with spatial organization of communities and cities, spatial disparity of health and crimes, and mobility. Generic computer file management skills are required and knowledge of research methods is desirable.

SOCIOL 5537 Anthropology of Religion Credits: 3
This course explores the ways anthropologists have gone about studying religion from the opening decades of the 20th century to present. The course introduces students to the diversity of human religious expression and experience through anthropological literature and to the diversity of anthropological expression especially as it has been revealed in social scientific studies of religious life. The course is designed to generate a critical dialogue about the special role that religion has played in the ongoing anthropological engagement with "other" societies and cultures over time.

SOCIOL 5538 Gender, Work And Social Change Credits: 3
This course examines the role of gendered work and consumption in global social change. Drawing from sociological perspectives on gender and work, this course foregrounds a global comparative analysis of societal development and working contexts, including tourism employment, sex work, domestic work, and agricultural, garment, and informatics production. Graduate students are required to carry out independent research or complete work in the area of public sociology and academic-service learning. Students will write a conference paper or journal quality article from this research.

SOCIOL 5540 Urban Social Structure Credits: 3
An examination of the social structure of the American city with special reference to the historical development of American cities. Attention will be focused on the role of social institutions as they have changed in relation to urban problems.

SOCIOL 5550 Sociology Of Aging Credits: 3
A seminar in which theoretical orientations, methodologies, and findings from crosscultural and community research in gerontology are systematically reviewed, within a social change framework.

SOCIOL 5554 Sociology Of The Aging Woman Credits: 3
An exploration of the intersection of gender and aging issues with special attention to cultural images of women, the development of self-concept and identity in mid-life and beyond, caring roles in the family, work and retirement, and health and mental health issues. These issues are examined within the context of social class, race, and ethnicity. Implications for community programs and social policy are considered. Graduate students will be expected to carry out a research project and to lead a class session.

SOCIOL 5556 Aging And Developmental Disabilities Credits: 2
This course explores the experience of aging with a developmental disability or mental retardation within the context or normative aging. Among the comparisons made between older persons with and without developmental disabilities are their demographic characteristics, physical and cognitive functioning, role transitions and losses, identities and self-concepts, and family and caregiving issues. Policies, programs, and emerging concepts of best practices are considered within the context of quality of life, ethical, and community inclusion bases.

SOCIOL 5557 Practicum In Aging And Developmental Disabilities Credit: 1
Students gain experience in working with and defining issues of older persons with developmental disabilities through placements in sheltered workshops, senior centers, residential group homes, and other community-based programs.

Co-requisites: SOCIOL 5556.

SOCIOL 5560 Sociology Of Death And Dying Credits: 3
This course examines attitudes, behaviors, and institutions related to death and dying in contemporary American society. Topics include the meanings of death in American society, social settings for dying, interaction with the dying, customs and practices surrounding death, role transitions of survivors, and suicide. Special attention is given to issues of aging and dying.

SOCIOL 5573 Latin American Immigrants and Refugees in the U.S. Credits: 3
This course is the study of history, culture and societies of immigrants and US citizens of Latin American heritage living in the U.S.

SOCIOL 5580 Special Studies In Sociology Credits: 1-3
An opportunity to explore in depth topics not included in usual course offerings. One or more topics will be announced in advance of registration.

SOCIOL 5595 Directed Research Experience Credits: 3
Research project supervised by faculty.

SOCIOL 5597 Independent Readings Credits: 1-3
Intensive readings in an area selected by the student with prior consultation with the instructor.

SOCIOL 5599 Thesis And Research Credits: 1-6
Directed specialized research. Before writing a thesis, the student must clear the topic and research design with the Supervisory Committee. The course also involves the writing of the thesis.

SOCIOL 5699 Dissertation Research Credits: 1-12
Individual directed research leading to preparation and completion of doctoral dissertation.

SOCIOL 5899 Required Graduate Enrollment Credit: 1

Spanish (SPANISH)
Courses

SPANISH 5503 History of the Spanish Language Credits: 3
An introduction to the history of the Spanish language from Latin to the present, with an overview of dialects in the Peninsula and in the Americas.
Prerequisites: Spanish 325 or higher grammar class.

SPANISH 5514 Spanish Literature Credits: 3
Selected readings in Spanish narrative, poetry, drama and philosophical essay from the beginning of the 20th Century to the Avant-Garde movements in the 1930's.

SPANISH 5516 Medieval Spanish Literature Credits: 3
A study of selected medieval masterpieces in their Old Spanish form, with special emphasis on Romances, the Cantar de Mio Cid La Celestina, El Corbacho, Libro del buen amor, etc. Includes a short history of the Spanish language.

SPANISH 5519 Federico Garcia Lorca Credits: 3
A study in depth of the poetry and drama of Federico Garcia Lorca.

SPANISH 5520 Cervantes' Don Quixote, Part 1 Credits: 3
An intensive reading of the first part of Cervantes' novel, Don Quixote.

SPANISH 5521 Cervantes' Don Quixote, Part II Credits: 3
An intensive reading of the second part of Cervantes' novel, Don Quixote. Part One is not a prerequisite.

SPANISH 5526 Golden Age Drama Credits: 3
A study in depth of the creation of national theater by Lope de Vega and his followers.

SPANISH 5527 Pre-Columbian and Spanish Colonial Literature Credits: 3
A study of pre-Columbian works in drama, narrative, and poetry (Popol Vuh, Apu-Ollantay, Incan and Aztec poetry) along with a survey of Spanish-American colonial literature.

SPANISH 5528 Contemporary Spanish Poetry Credits: 3
A comprehensive and intensive study of 20th-century Spanish poetry. The poets and their poetry will be studied in the light of literary movements, foreign influences, political tendencies and philosophical ideas.

SPANISH 5529 Novel of the Mexican Revolution Credits: 3
The revolution as the principal focus of 20th-century Mexican fiction. The course will examine both the evolving understanding of the event/process and the sophistication of narrative technique employed in its presentation. Among the writers to be studied are Azuela, Guzman, Lopez y Fuentes, Yanez, Revueltas, Rulfo and Fuentes.

SPANISH 5530 Spanish Mysticism Credits: 3
An examination of the development of mysticism in Oriental and Occidental civilizations, with emphasis on the great periods of mystic experience as reflected in the literary production of the Spanish Golden Age. Readings could include the works of Fray Luis de Granada, Fray Luis de Leon, Saint John of the Cross and Saint Teresa of Avila.

SPANISH 5531 The Golden Age Novel Credits: 3
A study of major prose works of the Golden Age. Possible topics include authorship, innovative narrative techniques, textual strategies and metafiction issues. Readings could include works by Alfonso Martinez de Toledo, Diego de San Pedro, Fernando de Rojas, Francisco Delicado, Cervantes, and Lope de Vega.

SPANISH 5532 Pastoral Literature Credits: 3
A study of the development of pastoral literature during the Spanish Golden Age. Possible texts: Juan del Encina's Eclogues, Montemayor's Los siete libros de la Diana and Cervantes' Galatea. These works will be examined within their historical and cultural context.

SPANISH 5533 Cervantes' Exemplary Novels Credits: 3
A study of Cervantes' Exemplary Novels within the context of 17th Century Spain. Attention will be paid to interpretive possibilities and how knowledge of historical contexts might influence readings of this rich and varied cultural output.

SPANISH 5534 The Picaresque Novel Credits: 3
A study of the development of picaresque fiction during the Spanish Golden Age. The course deals with novelists principally active during the Baroque period such as Mateo Aleman, Francisco Lopez de Ubeda, Miguel de Cervantes, and Francisco de Quevedo.

SPANISH 5535 Peninsular Poetry Credits: 3
This course is a survey of poetics and poetry in Spain from the Reconquest to the present, with emphasis on sociohistorical contexts and movements. It examines theoretical and methodological approaches to literary analysis and also provides practical experience in exploring poetic texts. Students will analyze a wide spectrum of poems, while discussing the cultural philosophical, linguistic, political and ethical considerations that surround the reception of a text.

SPANISH 5536 Spain's Transition to Democracy: Literature and Film Credits: 3
This course reviews the cultural production between the death of Francisco Franco in 1975 and the entrance in the European Union, in film, literature and music, within its historical and political context.
SPANISH 5550 Modern Classics of Latin American Literature Credits: 3
The goal of the course is to familiarize the student with the principal Latin American writers of the modern period. The focus will be dual: the progressive sophistication of literary technique, and the refinement of social conscience. Among the authors to be studied are: Asturias, Borges, Carpentier, Cortazar, Donoso, Fuentes, Garcia Marques, Paz, Rulfo, and Vargas Llosa.

Cross Listings: SPANISH 450.

SPANISH 5553 Spanish-American Short Story Credits: 3
A study of Spanish-American short stories from Romanticism to the present.

SPANISH 5580 Special Topics Credits: 1-3
Treatment of a particular genre or area of literature or language normally not offered through regular courses. May be repeated for credit when the topic changes.

SPANISH 5580D Special Topics Credits: 1-3

SPANISH 5590 Directed Studies in Spanish & Latin American Literature Credits: 1-3
Intensive readings in a field or literary figure to be selected by the student in consultation with the instructor. Available by permission of graduate advisor or instructor, as appropriate, only when student cannot take regularly scheduled courses.

Special Education (EDUC-SP)

Courses
EDUC-SP 5506 Special Education Law, Individualized Education Programs (IEP’s), and Transition Credits: 3
This course provides students with knowledge of special education law, the individualized education program (IEP), and transition-related instruction i.e., preparation for post-high school education employment, independent living, and community integration) for students with disabilities. Prior to taking the course, a background check must be completed in order to do the required 10-hour field experience for this course. The field experience will include observation of meetings with families and other professionals.

Prerequisites: Master's student status.

EDUC-SP 5507 Introduction To Mild/Moderate Cross-Categorical Disabilities Credits: 3
This is the initial foundations course in the master's degree sequence in special education of children and youth with mild/moderate disabilities including learning disabilities (LD), emotional/behavioral disorders (EBD), mental retardation (MR), and physical and other health impairments (POHI). It is designed to provide candidates who are new to the field of special education with a foundation for working with students who have exceptional learning needs. Prior to taking the course, a background check must be completed in order to do the required 10-hour field experience for this course. The field experience will include observations and working with children and youth with disabilities.

Prerequisites: TCH-ED 404.

EDUC-SP 5508 Assessment for Special Educators Credits: 3
This is a foundations course in the master's degree sequence in special education of children and youth with mild/moderate disabilities. The purpose of this course is to provide understanding and practice in formal and informal evaluation. This course is applicable to candidates who plan to work either directly (special educators) or indirectly (special education administrators) with students with exceptional learning needs and to engage in critical analysis of assessment issues confronting the field of special education. Prior to taking the course, background check must be completed in order to do the required 10-hour field experience for this course. The field experience will include observations and working with children and youth with disabilities.

Prerequisites: EDUC-SP 5507, EDUC-SP 5513.

EDUC-SP 5509 Cognition & Lang Dev In Mild/Mod Cross-Categorical Disabilities Credits: 3
This is a specialized methods course in the master's degree sequence in special education of children and youth with mild/moderate disabilities. This course examines and atypical development and cultural and linguistic diversity of students with exceptional learning needs. Candidates will practice collaborative and reflective decision-making and problem solving in areas such as: (a) developmentally sequenced activities, (b) receptive and expressive language, and (c) communication and augmentative communication skills. The field experience will include working observations and working with children and youth with disabilities.

Prerequisites: Background check, EDUC-SP 5507, EDUC-SP 5513.

EDUC-SP 5510 Practicum in Special Education Credit: 1
The purpose of this course is to provide a field-based experience in a setting with students with mild/moderate cross-categorical disabilities. This field experience affords candidates classroom experience either in their own instructional settings or under the tutelage of a master teacher. Placement sites reflect the multicultural diversity found in special education classrooms (K-12). The practicum will include observations, working with children and youth with disabilities individually and in small groups, as well lesson preparation and presentation.
EDUC-SP 5511 Practicum II – Special Education Credit: 1
Provides second tier field-based experience in a setting with students with mild/moderate cross-categorical disabilities. This field experience affords candidates classroom experience either in their own instructional settings or under the tutelage of a master teacher. Placement sites reflect the multicultural diversity found in special education classrooms (K-12). Experiences include observations, working with children and youth with disabilities individually and in small groups, as well as lesson preparation and presentation.
Prerequisites: EDUC-SP 5510.

EDUC-SP 5512 Methods I: Introduction to Teaching Students with Mild/Moderate Cross-Categorical Credits: 3
Examines theories and practices which are effective in addressing learning difficulties of students with mild/moderate disabilities. Focuses on understanding learner characteristics with the purpose of differentiating instruction related to academic, behavioral, and social skills presented by students with mild/moderate disabilities.
Prerequisites: Admission to the Special Education program or consent of instructor.

EDUC-SP 5513 Methods II: Teaching Students with Mild/Moderate Cross-Categorical Disabilities Credits: 3
Candidates learn academic and behavioral strategies to plan instruction, deliver instruction, and evaluate student and teacher performance in order to promote critical thinking and content literacy across all content areas, including science, mathematics, reading, writing, and social science. Prior to taking the course, a background check must be completed in order to do the required 10-hour field experience for this course. The field experience will include observations and working with children and youth with disabilities.
Prerequisites: EDUC-SP 5512 or permission of the instructor.

EDUC-SP 5514 Understanding and Addressing Challenging Behavior in the Classroom Credits: 3
An examination of validated practices based on principles of Applied Behavior Analysis for managing challenging behaviors, facilitating formal behavioral assessment, creating positive behavioral supports, conducting functional behavioral assessments, and developing behavior intervention programs. Candidates reflect critically on social/affective curricular goals for children and youth with mild-moderate cross-categorical (MM/CC) disabilities and relate the theoretical, research, and practical strategies of behavior change models in an applied setting. Experiences include interactions with teachers, parents, and paraprofessionals, in order to understand and remediate student behavior problems. Prerequisite: Admission to program, EDUC-SP 5515, or consent of instructor.
Prerequisites: Prior to taking the course a background check must be completed in order to do the required 10 hour field experience for this course. The field experience will include observations and working with children and youth with disabilities.

EDUC-SP 5515 Applied Behavior Analysis for Teachers: Understanding and Applying Theories of Behavior Credits: 3
This course is designed as an introductory graduate level class on behavior and is the first of two courses on behavior. The course addresses aspects of managing and motivating learners with special needs placed in general education settings based upon the principles of Applied Behavior Analysis (ABA). Topics include student acquisition of knowledge and skills related to ABA behavior principles theory and history of ABA, ethical considerations of ABA, understanding the principles of reinforcement and punishment, identifying the nature of consequences maintaining or decreasing specific behaviors; and operationally defining behavior. Prior to taking the course a background check must be completed in order to do the required 10 hour field experience for this course. The field experience will include observations and working with children and youth with disabilities.

EDUC-SP 5516 Collaborating with Families and Other Professionals Credits: 3
This is a methods course in the master's degree sequence in special education of children and youth with mild/moderate disabilities. The course presents principles and procedures for fostering collaborative partnerships among family members, caregivers, educators, and human service personnel that lead to outcomes of individual and mutual empowerment. Candidates will engage in reflective thinking on their personal philosophical beliefs and interweave these beliefs with the skills needed to work with the multicultural issues facing families of children and youth with mild/moderate cross-categorical disabilities and other professionals. Prior to taking the course a background check must be completed in order to do the required 10 hour field experience for this course. The field experience will include observations and working with families of children and youth with disabilities and education professionals.

EDUC-SP 5517 Characteristics, Hist & Thrys: Emotional Disturbance In Children Credits: 3
An investigation of theories, classification, etiology, incidence, and characteristics of children with emotional/behavioral disorders.

EDUC-SP 5570 Student Teaching in Special Education Credits: 8
This is the final clinical course in the master's degree sequence in special education of children and youth with mild/moderate disabilities. The purpose of this course is to provide a field-based experience in a setting where candidates will be fully responsible for designing curriculum and teaching students with mild/moderate cross-categorical disabilities. Placement sites reflect the multicultural diversity found in special education classrooms (K-12). This course requires candidates to apply content learned throughout the master's degree program in an authentic setting. Student teaching involves a full time commitment to the field for 16 weeks.
Prerequisites: EDUC-SP 5510, EDUC-SP 5511, Background check.

EDUC-SP 5589 Special Topics In Education Credits: 1-6
A course designed to deal with a special education topic which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed on the semester bulletin.

EDUC-SP 5598 Individual Studies Credits: 1-6
Review of the research and trends relative to selected problems in special education.
Statistics (STAT)

Courses

STAT 5501 Statistical Design Of Experiments Credits: 3
This course is designed to present a variety of experimental design techniques to students with moderate mathematical and statistical background. The course includes three major components: efficient factorial designs, linear and quadratic process optimization of the location parameter, and variability reduction. Students will be trained to use the SPSS statistical software package.
Prerequisites: STAT 436.

STAT 5537 Mathematical Statistics I Credits: 3
Prerequisites: MATH 402.

STAT 5547 Mathematical Statistics II Credits: 3
Continuation of STAT 5537.

STAT 5551 Applied Statistical Analysis Credits: 3
Methods for analyzing data from experiments and observational studies; design-based and model-based inferences; model assessment; ANOVA; power analysis; SAS procedures.
Prerequisites: STAT 441.

STAT 5561 Time Series Analysis Credits: 3
This course is intended to present the basis knowledge (including models, methods and concepts) of time series analysis to students with a good background in intermediate mathematical statistics. Some elementary knowledge of basic linear regression analysis would be helpful but not necessary. The presentation will be balanced between theory and data analysis, with sufficient theory to understand the basis of methods and a broad variety of models and many real data examples. Case studies will be drawn from business and economics, network traffic and meteorology, and data will be analyzed by students using existing computer programs (SAS, Minitab and R). Students are also expected to understand proper use and limits of time series models.
Prerequisites: STAT 441.

STAT 5565 Regression Analysis Credits: 3
Simple linear regression; multiple linear regression; correlation analysis; model selections; checking assumptions; regression diagnostics; combating multi-collinearity; nonlinear regression.
Prerequisites: STAT 441.

STAT 5572 Multivariate Analysis Credits: 3
Random vectors; multivariate normal distributions; Hotelling’s T-square distribution; Wishart distribution; inferences on one mean vector; MANOVA; inferences on covariance matrices; profile analysis.
Prerequisites: MATH 420 and STAT 441.

STAT 5575 Stochastic Calculus for Finance Credits: 3
This course presents the basic idea and theory of stochastic calculus with the focus on the applications to finance. Topics include Brownian motion, Ito integral, Ito formula, Black-Scholes equation and formula, risk-neutral pricing, connections with partial differential equations, exotic options, American derivative securities, and term structure models for interest rates.
Prerequisites: MATH 402 and STAT 436.

Cross Listings: MATH 5575.

STAT 5576 Probability Credits: 3
Existence and extension of measure, random variable, expectation and its properties, types of convergence, law of large numbers, weak convergence, central limit theorem, and martingale.
Prerequisites: STAT 436 and MATH 5513.

STAT 5578 Advanced Mathematical Statistics Credits: 3
Exponential and location families, principles of data reduction, asymptotic distributions, advanced theory of estimation and hypothesis testing.
Prerequisites: STAT 5547.

STAT 5588 Theory of Linear Model Credits: 3
This course covers vector space, full rank linear model, general inverse, estimation under linear constraints interval estimation, hypothesis testing, distributions of quadratic forms, general distribution theory, estimability, Gauss-Markov theorem, Best Linear Unbiased Estimation (BLUE), regression on dummy variables, estimation of variance components, Scheffe and Turkey intervals, and non-full rank linear model.
Prerequisites: MATH 420, STAT 5537, and STAT 5565.
STAT 5590 Special Topics Credits: 1-3
Selected topics in various fields of mathematics. May be repeated for credit when the topic varies.

**String Bass (STR-BASS)**

**Courses**

- **STR-BASS 5300 Studio Class Credits: 0**
  Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

- **Cross Listings:** STR-BASS 300.

- **STR-BASS 5500A Graduate String Bass-Secondary Credits: 2**
- **STR-BASS 5500B Special Applied Studies Credits: 2**
  One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

- **STR-BASS 5500C Applied Study of a Second Instrument Credit: 1**
  One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

- **STR-BASS 5500A Graduate String Bass-Secondary Credits: 2**
- **STR-BASS 5500B Special Applied Studies Credits: 2**
  One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

- **STR-BASS 5500C Applied Study of a Second Instrument Credit: 1**
  One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

- **STR-BASS 5500JA Graduate Applied Jazz Studies Credits: 2**
  One-hour lesson weekly. Jury examination is required.
  **Prerequisites:** Graduate standing.

- **STR-BASS 5500JB Special Applied Jazz Studies Credits: 2**
  One-hour lesson weekly. This course is for pedagogical or review purposes. A jury for comments only may be held at the discretion of the faculty. **Prerequisites:** Graduate standing.

- **STR-BASS 5500JC Applied Jazz Study of a Second Instrument Credit: 1**
  One half-hour lesson weekly. Applied study for those students who wish to pursue applied jazz study in an area other than, and in addition to, their primary performance study. **Prerequisites:** Graduate standing.

- **STR-BASS 5501 Graduate String Bass - Masters Performance Credits: 4**
- **STR-BASS 5601 Graduate String Bass - Doctoral Performance Credits: 4**

**Teacher Education (TCH-ED)**

**Courses**

- **TCH-ED 5312 Legal and Ethical Aspects of Teaching Credits: 3**
  This course provides an introduction to landmark court cases, federal and state laws, and regulations that frame students’ and teachers’ rights and responsibilities and that provide guidance for ethical professional practices.

- **TCH-ED 5314 Cultural Diversity and Teaching English Language Learners Credits: 3**
  Foundational knowledge on teaching diverse populations and practical instructional approaches for meeting the needs of linguistically and culturally diverse learners. Emphasis on studying and applying instructional strategies that are appropriate for addressing the unique needs of children whose primary language may not be English.

- **TCH-ED 5315 Assessment and Data Literacy Credits: 3**
  Data collection and assessment strategies—including formative, summative, formal, and informal—to be used in developing student learning profiles, planning learning experiences, and monitoring student progress toward academic goals. Topics include the impact of assessment on equitable education for diverse learners, critical observation and questioning, basic qualitative and quantitative data analysis, working with data teams, collaboration/communication with families and other educational stakeholders, setting and monitoring learning goals, and the ethics of data collection and sharing.

- **TCH-ED 5385 Teaching and Learning with Technology Credits: 3**
  This course addresses the fundamentals of using technology in education and planning instruction to engage PK-12 students in problem solving and critical thinking using technology. Topics within the course are informed by International Society for Technology in Education Standards (ISTE), InTASC Model Core Teaching Standards and Learning Progressions for Teachers 1.0, Missouri Teacher Standards and Quality Indicators, and Missouri Learning Standards.

- **TCH-ED 5396 English Language Study for Middle and High School Teachers Credits: 3**
  Explores the fundamentals of teaching English language and grammar study, emphasizing patterns in the English language including sounds, words, sentences, meaning, and discourse as they are manifested in daily lives. Educationally relevant topics, such as applications of sociolinguistics to the teaching of English language and literature, varieties of grammar, and linguistic descriptions of styles and registers are an integral part of the course.
TCH-ED 5404 Education of the Exceptional Child and Youth Credits: 3
Students will be introduced to identification and educational intervention strategies for educating exceptional children and adolescents in inclusive classroom situations. This course requires a 10-hour field experience.

TCH-ED 5412 Language Arts in the Elementary and Middle School Credits: 3
Provides instruction in planning, implementing and assessing language arts activities. Critical analysis in classroom settings is emphasized. Other issues discussed include: literature-based instruction, multicultural perspectives, special needs students and professional behaviors.

TCH-ED 5413 Mathematics in the Elementary School I Credits: 3
Mathematics-specific pedagogy. Methods, techniques, tools and materials for the effective teaching of mathematics. Focus on the principles, methods, and materials of elementary school mathematics instruction and state curriculum in the context of diverse student backgrounds.

TCH-ED 5417 Science Methods In The Elementary School Credits: 3
The course prepares pre-service teachers to teach science from a constructivist, inquiry-oriented perspective.

TCH-ED 5418 Social Studies Methods in the Elementary and Middle Schools Credits: 3
A critical analysis of current practices, teaching methods, materials and the relationship of the social sciences to social studies. Emphasis is on understanding cultural diversity and cultural influences on learning. The planning, implementation and evaluation of an interdisciplinary social studies unit of instruction, focusing on competencies and skills needed for the 21st Century.

TCH-ED 5419 Student Teaching in Elementary School Credits: 3-12
Observation and student teaching under supervision in an elementary school. Elementary majors must enroll in 12.0 credit hours. Music education majors enroll in 3.0 or 7.0 hours; art education and foreign language education majors enroll in 7.0 hours.

TCH-ED 5422 Practicum I - Middle and High School Credit: 1
The purpose of this field experience is to apply theoretical and practical knowledge gained in concurrent courses.

Co-requisites: TCH-ED 312; TCH-ED 430; TCH-ED 420.

TCH-ED 5423 Practicum II - Middle and High School Credit: 1
The purpose of this field experience is to apply theoretical and practical knowledge gained in concurrent courses.

Prerequisites: TCH-ED 422.


TCH-ED 5424 Practicum III - Middle and High School Credit: 1
The purpose of this field experience is to apply theoretical and practical knowledge gained in concurrent courses.

Co-requisites: TCH-ED 315, TCH-ED 463, TCH-ED 438, Content specific methods courses.

TCH-ED 5427 Reading in the Secondary School Credits: 3
An examination of the reading process and study of methods and materials used by the secondary school classroom teacher in assessing student reading ability, determining the readability of content area materials and teaching students of all reading levels how to comprehend their textbooks and other printed instructional materials in various content area subjects.

TCH-ED 5430 Analyzing Learning Environments in Urban Contexts Credits: 3
This course serves as the major vehicle for articulating a programmatic construction of classroom management as establishing productive learning environments, facilitating social interaction, and planning relevant and engaging learning experiences based upon deep knowledge of individual students’ contexts and cultures.

TCH-ED 5431 Summer Community Experience Credits: 3
This field-based course provides an in-depth examination into both the evolution of urban communities and dynamics of community building in inner cities, with special emphasis on Kansas City, Missouri. In addition, theories of educational psychology as well as child and adolescent behavior will be infused to assist participants in developing age appropriate mentoring/teaching strategies and activities. Students in the course are engaged with the community through field trips, simulations, course events, and community service.

Prerequisites: Admission into Elementary Education program or Institute for Urban Education.

TCH-ED 5432 Special Methods of Teaching English in Middle and High Schools Credits: 3
This course stresses the skills, knowledge, and dispositions pertinent to teaching English Language Arts in middle schools and high schools.

TCH-ED 5433 Special Methods of Teaching Mathematics in Middle and High Schools Credits: 3
This course stresses the skills, knowledge, and dispositions pertinent to teaching mathematics in middle schools and high schools.


TCH-ED 5434 Seminar in Social Science Curriculum Credits: 3
This seminar course is designed to strengthen teacher candidates’ content knowledge for designing and enacting transformative social science curriculum and pedagogy. Students will actively examine key content, concepts, themes, issues, multiple perspectives, and enduring questions embedded in the social science disciplines such as history, geography, economics, anthropology, sociology, political science and psychology and cultural and social contexts to enhance their knowledge, skills, and confidence for designing and enacting a transformative social science curriculum for diverse middle and high school students’ development of civic competence.
TCH-ED 5435 Special Methods of Teaching Science in Middle and High Schools Credits: 3
Provides an opportunity for future science teachers to refine their skills as science educators and at the same time to reflect upon the ways and whys of teaching science.

TCH-ED 5436 Special Methods of Teaching Social Science in Middle and High Schools Credits: 3
This course will assist teacher candidates in developing the knowledge, skills, and dispositions needed to design and enact powerful transformative social studies curricular experiences, to foster middle and secondary school students' abilities to make informed, reasoned decisions and actions for the public good. Students will be introduced to powerful teaching practices, issues, and resources in secondary school social science.

TCH-ED 5437 Student Teaching in Secondary School Credits: 3-9
Culminating experience n a secondary school (grades 9-12). Enrollment hours vary for teacher candidates in Music, Art, and Foreign Languages. Secondary majors in English, Mathematics, Science, and Social Science enroll for 9 semester credit hours.
Prerequisites: TCH-ED 5424.

Co-Requisite: Seminar.

TCH-ED 5438 Culturally Responsive Strategies for Teaching Diverse Learners Credits: 3
This course is designed to move students from cultural awareness to the application of culturally responsive practice. Specifically, this course will heighten students' understanding of cultural characteristics and their relationships to teaching and learning. Students will learn culturally responsive strategies and their enactment in instruction for diverse learners.

TCH-ED 5440 Introduction To Early Childhood Education Credits: 3
Introduction to the field of early childhood care and education, birth to age 8. Designed to familiarize future practitioners with the unique characteristics of early childhood education and its practice.

TCH-ED 5441 Literacy Development I Credits: 3
An introduction to how language is acquired and how to facilitate oral language expression in early childhood classrooms.

TCH-ED 5442 Observation, Assessment & Screening in Early Childhood Classrooms Credits: 3
This course is designed to identify developmentally appropriate ways to measure and evaluate child growth and development.

TCH-ED 5444 Mathematics In Early Childhood and Elementary Schools Credits: 3
The course prepares teachers who can create a learning environment in which mathematical concepts are drawn from and modeled within the child's active investigation of his or her own surroundings and views of the world. The emphasis is upon mathematics as a sense-making tool through which observation, action, classification, ordering, seeking patterns and common features, and testing of ideas come together to organize experiences and solve problems in the immediate environment. Stress is placed on methods and materials to make mathematics learning active and hands-on. A variety of materials, physical models, and tools are studied in terms of the way they can be used to help children explore, develop and test ideas, construct meaning, and communicate ideas.

TCH-ED 5445 Science In Early Childhood and Elementary Schools Credits: 3
Focus on ways of involving young children in science activities and experiences designed to promote curiosity, investigation and self-awareness as they explore their world.

TCH-ED 5447 Social Studies In Early Childhood and Elementary Schools Credits: 3
This course is designed to help students understand basic social studies concepts and pedagogy for young learners.

TCH-ED 5448 Literacy Development II Credits: 3
This course is designed to introduce the student to the different theories on literacy development. Students will examine different approaches but focus on a developmental perspective to literacy development.

TCH-ED 5449 Literacy Development III Credits: 3
This course is designed to help students identify effective and developmentally appropriate practices, strategies and experiences that foster literacy development.

TCH-ED 5450 Integrating The Curriculum In Early Childhood Education Credits: 3-4
A culminating curriculum course for early childhood students. The overall goal is to help students become more aware, skilled and informed about developmentally and educationally appropriate practice and curriculum for children during early childhood. Its focus is on constructing an integrated curriculum. A field-based experience is included.

TCH-ED 5451 Child Guidance Within The Classroom Credits: 3
Designed to help students examine and evaluate guidance techniques and teaching strategies used in classrooms for young children. Preventive measures in classroom management will be stressed.
Co-requisites: TCH-ED 481.

TCH-ED 5452 Family and Program Relationships in Early Childhood Education Credits: 4
Provides insight into the challenge of parenting, knowledge about the development and implementation of parent education and support programs, and the significance of school-family relationships. In addition, this course seeks to facilitate students' understanding of and sensitivity to parents' perspectives regarding the care and education of their young children.
Co-requisites: TCH-ED 453.
TCH-ED 5453 Learning From Parents Credits: 2
Designed to provide students with direct interactions with parents whose children are participating in early childhood programs, birth to age 8. Emphasis is placed upon students’ understanding of, and sensitivity to, parents’ perspectives regarding the care and education of their young children and recognition of parents as significant informants about their children.

Co-requisites: TCH-ED 452.

TCH-ED 5454 Human Relations In The Early Childhood Classroom Credits: 3
Students will analyze the connections between an effective helping relationship and effective teaching in the early childhood classroom. Effective interpersonal communication skills will be identified and practiced. The development of self-concept will be discussed.

TCH-ED 5455 Student Teaching In Preschool Credits: 6-10
Observation and student teaching under supervision in a preschool setting.

TCH-ED 5456 Student Teaching In Elementary, K Through 3 Credits: 6-12
Observation and student teaching under supervision in an elementary school, grades K through 3.

TCH-ED 5457 Infant And Toddler Care And Education Credits: 3
In this course, students will investigate infant and toddler care and education theories and practices. Students will learn about appropriate curriculum and teaching methods, visit infant and toddler programs, learn about state regulations and national standards for quality, and complete an environment rating scale.

TCH-ED 5458 Practicum For Learning About Infants And Toddlers Credit: 1
The purpose of this course is to learn about child care and education practices in various centers. We will discuss how practices are influenced or constrained by human biology and developmental stages, as they are by ecological and environment pressures such as mothers’ work roles. The central themes of the course can be summarized by the phrases purposeful care practices and the optimal practices for infants and toddlers.

TCH-ED 5459 Early Childhood Program Management and Advocacy Credits: 2
Students will begin to explore basic early childhood program components. Different types of advocacy will be presented, discussed, and implemented.

Prerequisites: TCH-ED 440.

TCH-ED 5460 Middle School Curriculum Credits: 2
This course offers the pre-service teachers an overview of middle school goals, basic principles, and organizations. The course explores interdisciplinary teaming, flexible scheduling, exploratory and advisory programs, and other aspects of the organization within the context of middle school goals and practices.

TCH-ED 5461 Student Teaching In Middle School Credits: 6-9
Culminating field experience in a middle school setting. Student teachers engage in an all-day, full semester placement in a middle school classroom. Middle School Education (English, Mathematics, Science, Social Science) majors must enroll in 9 credit hours. Hours for other programs using this field experience vary. Teacher candidates should seek advisor approval.

Prerequisites: TCH-ED 5424.

Co-Requisite: Seminar.

TCH-ED 5462 Middle School Philosophy and Organization Credits: 3
This course offers teacher candidates an overview of middle school goals, basic principles, and organizations. Topics include interdisciplinary teaming, flexible scheduling, exploratory and advisory programs, and other aspects of the organization within the context of middle school goals and practices.

TCH-ED 5463 Literacy Intervention across the Disciplines Credits: 3
Examination of research, policy, and effective practice of literacy intervention in middle and secondary disciplinary classrooms (i.e. English/language arts, mathematics, science, and social studies). Topics will include recognition of reading and writing difficulties, response-to-intervention (RTI), scaffolding instruction for grade level reading comprehension, metacognition, and culturally responsive literacy instruction.

TCH-ED 5464 Math Methods for Urban Teachers Credits: 3
Mathematics-specific pedagogy for urban teachers. Methods, techniques, tools and materials for the effective teaching of mathematics. Emphasis on problem solving and reasoning skills in applying mathematics and on teaching in the context of diverse student backgrounds. Portions of this course will occur in urban school classrooms. Students will apply learning to urban classrooms.

TCH-ED 5465 Urban Education VI: Teaching Diverse Students Credit: 1
This interactive course will investigate and examine the principles of teaching diverse students and factors influencing effectiveness of instruction, including empowering African American males, teaching students from diverse populations and working with students with special needs. Some of the class sessions will be taught electronically and work will be submitted electronically.

Prerequisites: Admission into the Institute of Urban Education.
TCH-ED 5466 Field Experience: Diverse Learners Credit: 1
Students will spend a minimum of 90 hours in an urban school classroom. Students will have the opportunity to apply learning and lessons designed in the semester's pedagogical courses, particularly Best Practices for Teaching Math, Science, and strategies for working with diverse learners. Students will work with their seminar leader, having the opportunity to be observed and conference about their teaching.
Prerequisites: Admission into the Institute for Urban Education.

Co-requisites: TCH-ED 465.

TCH-ED 5470 Philosophy and History of Science and Technology Credits: 3
This course uses an historical survey to introduce the main philosophical interpretations of the nature and structure of both science and technology. Core concepts such as prediction, explanation, progress, truth, and utility will be examined in light of various philosophical perspectives. Following this, case study methodology will be used to examine interactions among science, technology, and society. Although the major focus will be upon modern Western culture, some attention will be paid to earlier and non-Western cultures. Case studies to be examined include: Perception and Estimation, nuclear power and pesticides; the impact of high technology upon medicine; and the estimated cost/benefit of computer-mediated communications, for example, the Internet.

TCH-ED 5475 Working with Families and Communities Credits: 3
This course provides an in-depth examination of research and theory relative to children, family, and community which have implications for and application to learning and instruction. Emphasis will be placed on the exploration and critical examination of and insights into the challenge or parenting, knowledge about the development and support programs, and the significance of school-family relationships. In addition, this course seeks to facilitate students' understanding of and sensitivity to families' perspectives regarding the care and education of their children and adolescents. The course is for students in the elementary education program and Institute for Urban Education.
Prerequisites: Admission into Teacher Education or IUE.

TCH-ED 5480 Practicum I Early Childhood Credit: 1
Early Childhood students will participate in observation, assessment, and screening activities as they explore the complex nature of primary school settings. Students will be expected to spend 60 hours at classroom sites during the semester.
Co-requisites: TCH-ED 442.

TCH-ED 5481 Practicum II Early Childhood Credit: 1
Early Childhood students will participate in classroom management and guidance practices as they explore the complex nature of pre-kindergarten settings. Students will be expected to spend 60 hours at classroom sites during the semester.
Prerequisites: TCH-ED 480, admission into teacher education program.


TCH-ED 5482 Seminar in Teaching and Evaluating Writing Credits: 3
This course is designed to provide future teachers with a framework for success in the teaching of writing within the English Language Arts curriculum. The goal is to help students turn sound theory provided by the National Writing Project, the National Council of Teachers of English, and other experts in the field of rhetoric and composition into effective practice in the classroom.

TCH-ED 5483 Early Childhood Reading I: Introduction to Literacy and Reading Education Credits: 4
This course introduces concepts about literacy processes: i.e., social, cultural, cognitive and linguistic foundations of reading and writing processes. The major focus of the course is on learning components of comprehensive reading curriculum and a range od instructional approaches and methods appropriate for early childhood learners at different stages of literacy development.

TCH-ED 5484 Early Childhood Reading II: Assessing and Teaching Diverse Learners Credits: 4
This course introduces focuses on understanding the major components of reading processes (Phonemic awareness, word identification and phonics, vocabulary and background knowledge, fluency, comprehension strategies, and motivation) and how they are integrated in fluent reading for individual students at different stages of literacy development. The major projects for the course involves assessing and teaching an individual student over the course of the semester. Teacher candidates should also assess and teach in small groups of readers.
Prerequisites: Admission into the teacher education program.

TCH-ED 5485 Language Arts in the Early Childhood Classroom Credits: 3
This course provides instruction in planning, implementing, and assessing early childhood (birth through third-grade) language arts activities. Critical analysis in classroom settings is emphasized. Other issues discussed include: literature-based instruction, multicultural perspectives, special needs students and professional behaviors.

TCH-ED 5492 Language Arts Capstone Credits: 2
Designed for students in their last professional semester of the TE program, and are in a full-time student teaching placement. The course will serve as a culminating experience of the major concepts from the previous three semesters. Topics covered include school law, classroom management, working with special needs students, building critical thinking activities into the curriculum, planning and implementing authentic assessments, and examining the obligations, challenges, and realities of the teaching profession.
Prerequisites: TCH-ED 432.

Co-requisites: student teaching.
TCH-ED 5493 Seminar - Mathematics Credits: 3
Supports the culminating mathematics student teaching experience and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessments for individual learners. Peer and mentor collaboration in the analytical process are fundamental to the course objectives.

Prerequisites: TCH-ED 5433.

Co-requisites: Student Teaching.

TCH-ED 5494 Seminar - English/Language Arts Credits: 3
Designed for students in their last professional semester of the TE program, and are in a full-time student teaching placement. The course will serve as a culminating experience of the major concepts from the previous three semesters. Topics covered include: school law, classroom management, working with special needs students, building critical thinking activities into the curriculum, planning and implementing authentic assessments, and examining the obligations, challenges, and realities of the teaching profession. Supports the culminating English/Language Arts student teaching experiences, and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences, for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessment for individual learners. Peer and mentor collaboration in the analytical process are fundamental to the course objectives.

Prerequisites: TCH-ED 432.

Co-requisites: Student teaching.

TCH-ED 5495 Seminar - Science Credits: 3
Supports the culminating Science Education student teaching experience and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of teaching strategies they apply in their student teaching experiences, their effectiveness in facilitating learning in classrooms, and adaption of lessons and assessment for individual learners. Peer and mentor collaboration in the analytical process are fundamental to the course objectives.

Prerequisites: TCH-ED 435.

Co-requisites: Student teaching.

TCH-ED 5496 Seminar - Social Science Credits: 3
Supports the culminating Social Science Education student teaching experience and the submission of a final professional teaching portfolio. Student teachers analyze the effectiveness of the teaching strategies they are applying in their student teaching experiences, for their effectiveness in facilitating learning in classrooms, and adapt lessons and assessment for individual learners. Peer and mentor collaboration in the analytical process are fundamental to the course objectives.

Prerequisites: TCH-ED 436.

Co-requisites: Student Teaching.

TCH-ED 5497 Teaching Internship Credits: 3-8
Teacher candidates will work 3 to 5 days at the school site in which the candidate will complete the year-long teaching internship.

Prerequisites: TCH-ED 398.

TCH-ED 5498 Urban Education Seminar VII Credit: 1
This seminar meets weekly for 2 hours and is led by a clinical professor who serves as a mentor for the students throughout their program. Students will work closely with mentor teachers in the application and integration of social justice and the elementary school curriculum. A critical analysis of current practices, teaching methods, materials and how social justice manifests in curriculum and instruction. Emphasis is on understanding cultural diversity and cultural influences on learning. Concepts of a classroom community, parental relations and democratic classroom processes will be addressed. Students will have opportunities to apply their learning to urban classrooms.

Prerequisites: Admission into the Institute for Urban Education.

TCH-ED 5499 Capstone Credits: 2
This seminar is designed to complement the student teaching experience through the discussion and analysis of school-based issues. It is intended to help further develop a reflective, critical and analytical approach to pedagogical decision making through supportive collaboration.

Theatre (THEATRE)

Courses
THEATRE 5500RA Theatre Collaboration Credits: 1-2
A course for M.F.A. students exploring the collaboration/communication process in preparing a production. Must be elected by all students assigned to design, direct, technical direct or stage manage within the current or the following semester. Maximum of 8 hours applicable towards degree.
THEATRE 5501R Voice Training Credits: 2
(A,B,C,D) Training for the speaking and singing voice, development of skills in vocal dynamics, physical control, and relaxation for the actor, dialects and verse structure. Four semesters required for acting emphasis.

THEATRE 5506RR French Drama And Theatre Credits: 3
Study of significant plays and production methods in France from medieval times to the present. Particular emphasis will be given to the plays of Moliere, Racine, and Corneille, and to internationally renowned contemporary directors.

THEATRE 5507 19Th-Century Continental Theatre Credits: 3
Production of significant French, German, Russian, Spanish, and Scandinavian plays and playwriting of the 19th century. Particular emphasis will be given to plays representative of romanticism, realism, naturalism, fin-de-siecle decadence, and intensive study of production history.

THEATRE 5508 20Th-Century Continental Theatre Credits: 3
Study of the production of significant plays of Continental Europe from Strindberg to the present. Dramatic literature will be related to artistic currents such as expressionism, surrealism, the absurd, and where applicable, to political currents.

THEATRE 5509 Russian Drama And Theatre Credits: 3
Study of the production of Russian and Soviet plays with reference to the development of theatre art from the Christianization of Russia to contemporary post-Soviet drama.

THEATRE 5510 History Of The American Theatre I Credits: 3
An exploration of the trends in and the development of the American theatre from Colonial times to 1900.

THEATRE 5511 History Of The American Theatre II Credits: 3
An exploration of the trends in and the development of the American theatre for 1900 to the present.

THEATRE 5512R History Of The English Stage I Credits: 3
The English stage and its arts, crafts and literature from the medieval cycles through the Restoration.

THEATRE 5513 History Of The English Stage II Credits: 3
Development of English and Irish theatre art and dramatic literature from the 18th century to the present.

THEATRE 5514 History of Design And Technology I Credits: 3
The study of period style and scenic, costume, lighting, and technical production practices from the ancient world through the 17th century. The course will emphasize the application of research toward the presentation of period plays and contemporary production.

THEATRE 5515R History of Design And Technology II Credits: 3
The study of period style and scenic, costume, lighting, and technical production practices from the 18th century to the present. The course will emphasize the application of research toward the presentation of period plays and contemporary production.

THEATRE 5516A Technical Production for The Practitioner Credits: 3
The course is an in-depth review of technologies in scenery, lighting and stage operations, expansion of that knowledge, and application of it to the individual class member's particular theatre. Classroom material is augmented by hands-on experience in a controlled laboratory situation. Students should have a prerequisite of a basic technical theatre course or considerable practical experience. This course can be repeated for credit.

THEATRE 5516B Technical Production for The Practitioner Credits: 3
See course description for THEATRE 5516A.

THEATRE 5517A Professional Stage Management I Credits: 3
A functional analysis of the responsibilities of the professional stage manager. Requires the student to be an assistant stage manager on a University or KC Rep production.

THEATRE 5517B Professional Stage Management II Credits: 2
Practical course in stage management. Requires student to stage-manage or assistant stage-manage a production.

Prerequisites: THEATRE 5517A.

THEATRE 5517C Equity Assistant Stage Management Credits: 2
This course develops a skill set for professional assistant stage managers. Class will discuss duties and paperwork and how to supplement the work of the stage manager.

THEATRE 5517D Opera Stage Management Credits: 3
Class covers duties of the opera stage manager, including how to follow an opera score.

THEATRE 5517E Union Contracts for Actors and Stage Managers Credits: 2
Students study and discuss all the rules in the Equity Rule Book.

THEATRE 5517F Professional Production Management in Theatre Credits: 2
This course is a seminar on the duties, planning, negotiations, and problem solving techniques of the professional theatre production manager.

Prerequisites: THEATRE 5517A.

THEATRE 5520 Individual Performance Studies Credits: 1-2
(A,B,C) Private instruction for the advanced student.
THEATRE 5520L Individual Performance Studies Credits: 1-2

THEATRE 5521A Professional Sound Design Credits: 3
Professional Sound Design is a series of four courses constructed to develop the designer's skills from research and initial sound collection, into interpretation, collaboration and idea development, concluding with the production of finished designs for the MFA productions. Each section deals with problems of increasing complexity beginning with "found" design material for early production and leading to indigenous designs created and layered for complex production support. The course may be taken once or twice for non-sound designers with the full cycle being required for the sound design emphasis.

THEATRE 5521B Professional Sound Design Credits: 3

THEATRE 5521C Professional Sound Design Credits: 3
Professional Sound Design is a series of four courses constructed to develop the designer's skills from research and initial sound collection, into interpretation, collaboration and idea development, concluding with the production of finished designs for the MFA productions. Each section deals with problems of increasing complexity beginning with "found" design material for early production and leading to indigenous designs created and layered for complex production support. The course may be taken once or twice for non-sound designers with the full cycle being required for the sound design emphasis.

THEATRE 5521D Professional Sound Design Credits: 3

THEATRE 5522 History of Costuming I Credits: 3
The study of the history of European costume, with emphasis on the social and economic ramifications of costuming through the ages.

THEATRE 5523 History of Costuming II Credits: 3
The study of the history of Non-Western costume, with emphasis on the social and economic ramifications of costuming through the ages.

THEATRE 5524 Rendering Techniques for the Theatre Designer I Credits: 3
Introduces the mechanics of handling black and white media to develop two and three-dimensional techniques with an emphasis on observational training and object drawing, as well as white model and/or maquette construction, materials and techniques.

THEATRE 5530 Drafting for The Theatre Credits: 3
Practical laboratory course in drafting for the theatre encompassing floor plans, sections, designer's evaluations, front and rear elevations, working drawings, and problems in communicating design ideas.

THEATRE 5531R Rendering Techniques for the Theatre Designer II Credits: 3
Continuation of Rendering Techniques with the introduction of color, pastels, watercolor and goauche. Skills are applied in developing projects for design in the theatre.

THEATRE 5532 Professional Costume Design Credits: 3
(A, B, C, D) The courses in Professional Costume Design are intended to develop the costume designer's skills in research, rendering and drawing. Each section will deal with specific problems of design, such as period, line, silhouette, color and texture. Specific problems in design from realistic to stylized productions will be worked on by the students. The course may be taken once or twice by non-costume designers with the full cycle being required for costume emphasis.

THEATRE 5534 Costume Construction I Credits: 3
(A,B,C) Research and methodology into one or more of the following areas of costume construction for the stage: period pattern and tailoring adaptation, work with non-woven materials, and the cutting and finishing of costumes for the stage. May be repeated up to six hours with content change and permission of instructor.

THEATRE 5535 Technical Studies In Costuming And Makeup Credits: 3
(A,B,C) Concentration in one or more of the arts and crafts necessary to costume design. Areas to be chosen from include: fabric dyeing and painting, millinery, wig design and construction, latex prosthetic, and decorative accessories for the stage. May be repeated up to six hours with content change and permission of instructor.

THEATRE 5536 Professional Scene Design Credits: 3
(A,B,C,D) Professional Scene Design is a series of courses constructed to develop the designer's skills from research and initial sketches to finished renderings, models and working drawings. Each successive section deals with problems of increasing complexity beginning with one-set realistic productions through unit-settings, stylization and multiple setting problems. The course may be taken once or twice for non-set designers with the full cycle being required for the scene design emphasis.

THEATRE 5538 Scene Painting Credits: 3
A practicum course in scene painting techniques and execution. Introduction to painting equipment and supplies, priming and preparation of surfaces and materials, standard techniques for painting ornament.

THEATRE 5539 Scene Painting II Credits: 3
A practicum course in scene painting techniques with emphasis on painting interior drops, exterior landscapes and three-dimensional pieces.
THEATRE 5540 Pattern Drafting And Cutting Credits: 3
Theory and laboratory study of the techniques and methods employed in drafting patterns for the professional stage.

THEATRE 5545 Professional Acting Techniques I Credits: 3
Theatre games, exercises, mask work, and some scene study to develop the first year acting/directing class into a training ensemble, instill a clear and uniform vocabulary, heighten awareness, and begin concentrated skill work. The semester will culminate in a class project.

THEATRE 5546 Professional Acting Techniques II Credits: 3
Continuation of THEATER 5545 with emphasis on the application of the first semester's work through scene study of contemporary plays and monologues.

THEATRE 5547 Professional Acting Techniques III Credits: 3
Concentration on non-naturalistic styles. Work on scenes from Shakespeare and other classical playwrights.

THEATRE 5548 Professional Acting Techniques IV Credits: 3
Work on audition material and further scene work dealing with specific individual acting problems.

THEATRE 5549 Master Class In Acting Credits: 2
(A,B,C,D) Class in advanced studies in acting. May be repeated for credit up to eight hours as content and guest artist change. Permission of instructor or head of area required. Required for third year graduate acting students in the fall semester and may be repeated subsequently as elective.

THEATRE 5551 Rendering Techniques for the Theatre Designer III Credits: 3
Developing techniques for rendering in realistic settings: interiors, landscapes, fabric and furnishings.

THEATRE 5552R Rendering Techniques for the Theatre Designer IV Credits: 3
Developing techniques for rendering in non-realistic styles with the emphasis on imaginative designs, light and air, created textures, etc.

THEATRE 5557 Theatre History I Credits: 3
Development of theatre art-including dramatic literature, staging, and performance styles-from the beginning through the 17th century. This course also looks at Asian theatre forms. Students read approximately 20 plays.

Prerequisites: Graduate Status.

THEATRE 5560 Theatre History II Credits: 3
Development of western theatre art-including dramatic literature, staging, and performance styles-from the 18th century to the present. Students will read approximately 24 plays.

Prerequisites: Graduate status.

THEATRE 5562 Actor Practicum Credits: 3
A contemporary scene study class for actors. Actors test their acquired process skills with major emphasis placed on characterization.

THEATRE 5563 Text Analysis I Credits: 3
Linear analysis of selected prose dramas with concentration on character delineation, images and motivation for actors and directors.

THEATRE 5564 Text Analysis II Credits: 3
Continuation of THEATRE 5563 with emphasis on verse plays. Selected playwrights from the Greek and Elizabethan periods will be included along with modern verse dramatists.

THEATRE 5565 Introduction To Professional Directing Credits: 3
The first part of the class is devoted to an intensive study of various and diverse concepts related to the dramatic experience by dramatists, critics, and directors. The class also examines current production methods and practices for today's functioning professional director. Systems related to stage management and actors are investigated.

THEATRE 5567 Professional Directing Practicum Credits: 3
This class will move from concept to production. Work will revolve around the presentation of production concept statements in which the director will select, organize and articulate the theatrical substance in support of his or her chosen concept. Intensive analysis will lead to the development of an image/metaphor for production. Term will include presentation of a full book justifying concept choices for scenic, costume, music and dance, and, finally, full production.

THEATRE 5568 Seminar In Dramaturgy Credits: 3
Critical analysis of dramatic structure and techniques, with special reference to modern and contemporary drama.

THEATRE 5569 Master Class in Directing Credits: 2
(A,B,C,D) Class in advanced studies in directing. May be repeated for credit up to eight hours as new material and guest artist change. Graduate students elect THEATRE 5569.

THEATRE 5570 Professional Lighting Design Credits: 3
(A, B, C, D) Professional Lighting Design is a series of courses concerned with the study of light as a design element. Projects to implement design theory are primarily selected from the areas of dramatic, musical and opera theatre, and dance. Emphasis is on the design process with each successive section dealing with problems of increasing complexity. Areas of study and projects are chosen on the basis of individual levels of development. When elected by non-lighting designers the course may be elected for a maximum of two semesters.
THEATRE 5571A Professional Projections Design I Credits: 3
This course examines the techniques of theatrical projection design. Focus will be on the manipulation of projected images, and the fundamental use and control of automated projectors. This hands-on laboratory class will instruct students in the use of state of the art projection equipment and control consoles.

THEATRE 5571B Professional Projections Design II Credits: 3
This class will teach students how to design projections. Students will learn the practical applications of projection design as well as the theoretical and critical thinking necessary to successfully complete a projection design assignment. This class will culminate with the presentation of an assigned projection design or a realized projection design.

Prerequisites: THEATRE 5571A

THEATRE 5572 Stage Lighting Technology Credits: 2
This course is a comprehensive study of contemporary technical equipment and its usage to actualize lighting design. Areas of emphasis include photometric, color and color theory, lighting control systems, lighting control operations, cueing techniques, data control of intelligent lighting equipment, lighting fixtures, dimming system, hand drafted light plot standards, CAD light plot drafting, lighting specific software programs, video and image projections, and optical special effects. Theatrical genres will vary by semester.

THEATRE 5573 Professional Technical Production Credits: 3
Detailed study and experimentation with recent scenic materials, scenery construction, rigging systems, use of metal and special effects.

THEATRE 5574 Theatre Regulations, Laws and Safety Credit: 1
Survey of fire, city and Equity codes, and insurance, liability, health rules and regulations related to theater operation. Union and legal contracts, philosophy and relations with theatre facilities and operations.

THEATRE 5575R Property Construction Credits: 3
Construction techniques and materials used to make and modify set and hand properties and set dressing.

THEATRE 5577 Advanced Materials Credits: 3
(A,B,C,D) The theatre technician and designer are dependent on a wide range of materials in the creation of their art. Each semester the student will pursue detailed study of a material area (i.e., wood, metal, plastics, textiles), the processes of its usage and its related process-products (i.e., adhesives, paints, dyes, etc.). Field trips and hands-on laboratory work are integral to the course.

THEATRE 5578 Professional Theatre Administration Credits: 3
Theories, problems and techniques preparing the student for effective interaction with professional theater administration, offering a foundation for potential theatre administrators as well as enrichment for students of directing, design, technical and stage management.

THEATRE 5579R Master Class In Design Credits: 2
(A,B,C,D) Class in advanced studies in design. May be repeated for credit up to eight hours as content and guest artist change.

THEATRE 5580R Graduate Technical Student Seminar Credits: 2
(A,B,C,D,E,F) Required in every semester for Design/Tech M.F.A. candidates choosing a technology emphasis. This continuing seminar course serves as a forum for all graduate technical students to analyze and discuss problems and solutions on current academic and KCRep productions. The course develops collaborative skills through the sharing of ideas and experiences. In addition, topics of general interest to the technician will be studied through guest lecturers and/or individual projects prepared by the faculty and students and presented to the class.

THEATRE 5583 Seminar on Technical Production Management Credits: 2
Seminar involving shop organization, scheduling, purchasing, lending and borrowing, rentals, personnel, job description, organizing structure, etc. Emphasis upon organization and techniques for repertory theatre operation.

THEATRE 5584 Master Class In Technology Credits: 2
(A,B,C,D) Class in advanced studies in technology. May be repeated for credit up to eight hours as content and guest artist change.

THEATRE 5585 Advanced Technical Drafting Credits: 3
An intensive drafting course required for Design/Tech M.F.A. candidates with emphasis in technology. The course aims to equip the student to prepare clear shop working drawings from designer elevations. Topics include both conceptual planning techniques and developing mechanical drawing skills. One hour lecture, four lab hours, and extensive outside preparation.

THEATRE 5586 Structural Design for the Stage Credits: 3
A course in the structural design of scenic elements. The student learns to work within the visual restrictions imposed by the designer to build structures that will bear given load requirements with a minimum of deflection. Basic engineering and load analysis principles are studied and applied in the design procedure to find the best possible solutions in terms of strength, weight, safety and cost.

THEATRE 5587 Structural Design for the Stage II Credits: 3
This course is designed to give an introduction to the physics behind structural design and to guide the student through the process of designing safe, effective structural scenery for the theatre.

Prerequisites: THEATRE 5586.

THEATRE 5590 Directed Graduate Studies Credits: 3-6
Individual projects on the graduate level. No more than three hours with any one instructor. Only one 590 each semester.
THEATRE 5590A Directed Graduate Studies Credits: 3-6
THEATRE 5590B Directed Graduate Studies: Design Credits: 3-6
THEATRE 5590C Directed Graduate Studies: Costumes Credits: 3-6
THEATRE 5590D Directed Graduate Studies: Scenic Design Credits: 3-6
THEATRE 5590E Directed Graduate Studies: Directing Credits: 3-6
THEATRE 5590F Directed Graduate Studies Credits: 3-6
THEATRE 5590G Directed Graduate Studies: Lighting Credits: 3-6
THEATRE 5590H Directed Graduate Studies: Playwriting Credits: 3-6
THEATRE 5590I Directed Graduate Studies Credits: 3-6
THEATRE 5590J Directed Graduate Studies: Stage Management Credits: 3-6
THEATRE 5590K Directed Graduate Studies: Technical Production Credits: 3-6
THEATRE 5590L Directed Graduate Studies: Theatre Management Credits: 3-6
THEATRE 5590M Directed Graduate Studies: Theory And Criticism Credits: 3-6
THEATRE 5590N Directed Graduate Studies: Dramaturgy Credits: 3-6
THEATRE 5590O Directed Graduate Studies Credits: 3-6
THEATRE 5590P Directed Graduate Studies Credits: 3-6

THEATRE 5592A Seminar on Stage Management Practice Credit: 1
MFA student stage managers meet one hour a week with the Production Manager of both Kansas City Repertory Theatre and Department of Theatre (and head of stage management training) to discuss current management problems and solutions for productions in progress. The seventeen productions mounted each year by the Department and the Rep will be examined. Students will become aware of problem solving procedures in both the professional and the academic theatre.
**Prerequisites:** Graduate Stage Management Student.

THEATRE 5592B Seminar on Stage Management Practice Credit: 1
MFA student stage managers meet one hour a week with the Production Manager of both Kansas City Repertory Theatre and Department of Theatre (and head of stage management training) to discuss current management problems and solutions for productions in progress. The seventeen productions mounted each year by the Department and the Rep will be examined. Students will become aware of problem solving procedures in both the professional and the academic theatre.
**Prerequisites:** Graduate Stage Management Student.

THEATRE 5592C Seminar on Stage Management Practice Credit: 1
MFA student stage managers meet one hour a week with the Production Manager of both Kansas City Repertory Theatre and Department of Theatre (and head of stage management training) to discuss current management problems and solutions for productions in progress. The seventeen productions mounted each year by the Department and the Rep will be examined. Students will become aware of problem solving procedures in both the professional and the academic theatre.
**Prerequisites:** Graduate Stage Management Student.

THEATRE 5592D Seminar on Stage Management Practice Credit: 1
MFA student stage managers meet one hour a week with the Production Manager of both Kansas City Repertory Theatre and Department of Theatre (and head of stage management training) to discuss current management problems and solutions for productions in progress. The seventeen productions mounted each year by the Department and the Rep will be examined. Students will become aware of problem solving procedures in both the professional and the academic theatre.
**Prerequisites:** Graduate Stage Management Student.

THEATRE 5592E Seminar on Stage Management Practice Credit: 1
MFA student stage managers meet one hour a week with the Production Manager of both Kansas City Repertory Theatre and Department of Theatre (and head of stage management training) to discuss current management problems and solutions for productions in progress. The seventeen productions mounted each year by the Department and the Rep will be examined. Students will become aware of problem solving procedures in both the professional and the academic theatre.
**Prerequisites:** Graduate Stage Management Student.
THEATRE 5597 Repertory Theatre: Internship Credits: 3-6
Assignments available in the following areas: directing, design, carpentry, lighting, costume, props, acting, stage management. Technical interns will be assigned by the appropriate heads of those areas. Acting interns may understudy and/or play roles with the Kansas City Repertory Theatre on the Spencer stage or in showcase productions. Also, interns will have some responsibility in technical areas such as change-over, props, costume, running crew, and stage management. Directing interns may assist director or assistant stage manager.
Prerequisites: Selection by chairman of department.

THEATRE 5598R Research And Performance Credits: 1-6
Primarily for the M.F.A. student. Permission of the graduate faculty.

THEATRE 5599 Research And Thesis Credits: 1-6

THEATRE 5597 Repertory Theatre: Residency Credits: 6
The residency consists of authorized participation with the Kansas City Repertory Theatre, the Department of Theatre, or an approved outside professional company, and is arranged under departmental advisement, with the chairman of the department, and in consultation with the artistic director of KCRep. The assignment will be determined by matching interest and degree emphasis with available production assignments.

THEATRE 5899 Required Graduate Enrollment Credit: 1

Trombone (TROMB)

Courses
TROMB 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Cross Listings: TROMB 300.

TROMB 5500A Graduate Trombone-Secondary Credits: 2
TROMB 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

TROMB 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

TROMB 5500JA Graduate Applied Jazz Studies Credits: 2
One-hour lesson weekly. Jury examination is required.
Prerequisites: Graduate standing.

TROMB 5500JB Special Applied Jazz Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. A jury for comments only may be held at the discretion of the faculty.
Prerequisites: Graduate standing.

TROMB 5500JC Applied Jazz Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied jazz study in an area other than, and in addition to, their primary performance study.
Prerequisites: Graduate standing.

TROMB 5501 Graduate Trombone - Masters Performance Credits: 4
TROMB 5601 Graduate Trombone - Doctoral Performance Credits: 4

Trumpet (TRUMPET)

Courses
TRUMPET 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Cross Listings: TRUMPET 300.

TRUMPET 5500A Graduate Trumpet-Secondary Credits: 2
TRUMPET 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.
TRUMPET 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

TRUMPET 5500JA Graduate Applied Jazz Studies Credits: 2
One-hour lesson weekly. Jury examination is required.
Prerequisites: Graduate standing.

TRUMPET 5500JB Special Applied Jazz Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. A jury for comments only may be held at the discretion of the faculty.
Prerequisites: Graduate standing.

TRUMPET 5500JC Applied Jazz Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied jazz in an area other than, and in addition to, their primary performance study.
Prerequisites: Graduate standing.

TRUMPET 5501 Graduate Trumpet - Masters Performance Credits: 4
TRUMPET 5601 Graduate Trumpet - Doctoral Performance Credits: 4

Tuba (TUBA)

Courses
TUBA 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.
Cross Listings: TUBA 300.

TUBA 5500A Graduate Tuba-Secondary Credits: 2
TUBA 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

TUBA 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

TUBA 5501 Graduate Tuba - Masters Performance Credits: 4
TUBA 5601 Graduate Tuba - Doctoral Performance Credits: 4

Urban Leadership (EDUC-UL)

Courses
EDUC-UL 5501 Foundations Of School Leadership & Organization Credits: 3
Participants will study as cohort team members actively engaged in clinical/practical endeavors in schools, concepts and theories focused: 1) to understand and apply modern leadership and organization development theory in relation to school organizational cultures; 2) to understand both the development of productive school relationships and the theoretical concepts of the legal responsibilities of schools in the society; 3) to develop a plan for principal certification based upon participant needs and experiences; and 4) to build school cultures that are collaborative, participative, reflective, and self renewing.

EDUC-UL 5502 Building Administration And Management Credits: 3
Participants will study and apply theories and concepts as members of a Cohort Team doing clinical work in schools designed to study, learn, and practice the management and administrative responsibilities of building level leaders including principal roles, personnel issues, school business management, community relations, supervision of staff, and to know the legal responsibilities relating to teachers, student and public rights.
Prerequisites: EDUC-UL 5501.

EDUC-UL 5503 Student, Staff And Organization Development Credits: 3
Participants will study as a member of a cohort team doing clinical work in school and developing the ability: 1) to gain knowledge of, and practice in developing "learning organizations"; 2) to assist teachers and other staff members of a school in structuring classrooms around the learning and development of all students; 3) to lead and develop urban schools that are culturally diverse where learner outcomes and performance are not related to race, class, or gender; and 4) to provide leadership related to developing school structures that are outcome oriented.
Prerequisites: EDUC-UL 5501 and EDUC-UL 5502.
EDUC-UL 5504 Elementary School Administration Credits: 3
Contemporary knowledge, understanding, and competencies for elementary administration. Focus on leadership, communication, group processes, organization, fiscal, and political areas. In addition, basic roles and responsibilities of the school principalship are addressed.

EDUC-UL 5505 Middle School Administration Credits: 3
Middle school goals, effective middle school leadership, change models for staff development, relevant curricula, auxiliary and support systems.

EDUC-UL 5506 Secondary School Administration Credits: 3
Organization and objectives of secondary education; curriculum trends; role analysis; principal-staff relations. 
Prerequisites: EDUC-UL 5501.

EDUC-UL 5507 Instructional Supervision Credits: 3
Principles of supervision, factors influencing effectiveness of instruction, including the evaluation of teachers.

EDUC-UL 5508 Special Education Administration Credits: 3
Provides special educators, special education and regular education administrators with knowledge and experience in the areas of special education process, policy development, data collection and funding, legal issues and program organization. Special emphasis is given to dealing with common problems which arise in public school special education programs.

EDUC-UL 5510 Planning Educational Facilities Credits: 3
Analysis of educational specifications; cooperative planning processes; analysis of trends in school facilities; financial considerations and construction research. Visitation of selected facilities included.

EDUC-UL 5511 Public School Business Administration Credits: 3
The business related aspects of administering a school district including budgeting and accounting, purchasing, transportation, insurance, and facilities management.

EDUC-UL 5512 School Finance Credits: 3
Sources of revenue for public education; distribution of monies for education; budget construction; accounting procedures; and theories for financing education.

EDUC-UL 5513 School Personnel Administration Credits: 3
Study of processes, policies and theory concerned with the personnel function in educational administration. Emphasizes the importance of human resources in developing effective educational systems.

EDUC-UL 5514 Public Relations In Education Credits: 3
Analysis of various public views on education; mass communications and social change; public relations programs.

EDUC-UL 5515 Governmental And Legal Aspects Of Education Credits: 3
Current and recent legislation affecting education; court cases related to education; emerging patterns of modern jurisprudence; administrators' responsibilities regarding legal decisions.

EDUC-UL 5516 Governmental And Legal Aspects Of Special Education Credits: 3
An examination of current and recent legislation affecting special education; emerging patterns of modern jurisprudence; and special education teacher and administrator legal responsibilities.

EDUC-UL 5518 Leadership for School Improvement Credits: 3
The content of this course has a focus on identifying and using data to make school improvement decisions. Students will be engaged in readings, activities, and reflections that discuss the importance of using data for decision-making at the building and district levels of school leadership. 
Prerequisites: Admission into the Educational Administration Program.

EDUC-UL 5520 Data Driven Leadership for Reculturing Schools Credits: 3
The challenges facing urban education are complex and may be understood from a myriad of perspectives including historical and socio-cultural underpinnings, economic and political contexts, and pedagogical/achievement orientations. This course will bring together some of these arguments as they relate to what school leaders can do to promote a community of adult leaders who use data to make decisions for the success of all children. Such a challenge includes working as educational leaders to reculture schools to increase opportunities for all students to learn. For some schools this task involves closing the persistent achievement gap that may exist among groups of students which requires disaggregating data by race, ethnicity, socioeconomic status, gender, and special educational needs.

EDUC-UL 5522 School Organizational Culture As The Context Of Change Credits: 3
This course is designed to enable students to understand that schools as organizations develop cultures and that this culture establishes relationships and conditions in schools for students, teachers, and administrators. Students will develop an understanding of the culture of a school and its influence on efforts to achieve substantive change or reform.

EDUC-UL 5523 Administrative Roles For Instructional Leadership Credits: 3
This course meets a requirement for administrator certification in Missouri and Kansas in the area of school improvement and leadership. The course focuses upon leadership roles necessary for creating a supportive climate for change and for implementing improved instructional programs.
EDUC-UL 5524 Philosophical Inquiry And Education Credits: 3
An examination of issues, problems and controversies discussed in educational and related literature, utilizing criteria and techniques of logical and philosophical analysis. The focus is on the development of critical thinking abilities as applied to theories, positions and arguments in educational and related contexts.

EDUC-UL 5525 Cultural Foundations Of Education Credits: 3
Examines education and schooling as cultural phenomena. This course focuses on an analysis of education and schooling as both cultural transmission and cultural change and the practical implications. Also included is a philosophical/theoretical examination of varying relationships between dominant and minority cultures.

EDUC-UL 5526 Philosophical Foundations Of Education Credits: 3
Introduction to the study of philosophical problems implicit in educational issues. Focuses on the application of a number of philosophical concepts and skills to a variety of controversies, policies, and theories in education.

EDUC-UL 5527 Historical Foundations Of Education Credits: 3
Study of the development of educational policy, practice, and theory in relation to changes in social institutions and thought. Focuses on the analysis of contemporary educational problems in the light of historical perspectives.

EDUC-UL 5528 Sociological Foundations Of Education Credits: 3
An analysis of issues involving the role of schools in society, the relationship between education and other social institutions, and contemporary social developments which have major implications.

EDUC-UL 5531 Educational Leadership and Human Resources Credits: 3
This course has been designed to develop students' proficiencies in school human resource management and its importance to positive outcomes for student learning. The course focuses on human resource components that are essential to effective schools.
Prerequisites: Admission into the Educational Administration EdD Program.

EDUC-UL 5532 Educational Leadership and Organizational Behavior Credits: 3
This course has been designed to develop the students’ proficiencies in school organization and management to provide positive outcomes for student learning. The course focuses upon organizational behavior and development and its components that are essential to effective school.
Prerequisites: Admission into the Educational Administration EdD Program.

EDUC-UL 5534 English Language Learner Program Administration Credits: 3
Provides educators, administrators, and district officials with knowledge, skills, and dispositions necessary to supervise/manage programs and teachers in elementary, middle, or secondary schools that serve students with limited English proficiency. Participants will study and apply theories and practices related to language acquisition cultural pluralism, multicultural education, family and community engagement, acculturation, assessment, and legal rights and responsibilities relating to English language learners and the school.
Prerequisites: Bachelor's degree.

EDUC-UL 5535 Current Topics in Urban School Leadership Credits: 3
Current Topics in Urban School Leadership

EDUC-UL 5550 Organization And Administration Of Higher Education Credits: 3
Organizational patterns; administrative roles and procedures; establishment of policies, institutional development; and public and private financing of higher education.

EDUC-UL 5551 Student Affairs Administration In Higher Education Credits: 3
Study of the objectives, organizational structure, and current issues of student affairs administration as they relate to the academic program, the campus environment, and the needs of students; analysis of the functions of different services.

EDUC-UL 5553 Supervision and Management of People Credits: 3
The purpose of this course is to provide a broad overview of staffing practices in the field of higher education, especially student affairs. The course will assist students to be better professionals, to learn the literature as it relates to supervision, and to begin basic skill development. Other course content includes issues surrounding staff selection, staff orientation. The course is open to any graduate student.

EDUC-UL 5556 The College Student Credits: 3
An examination of today's college students. Review and study of demographics, relationships of students and colleges, nature of student communities, new student populations and the impact of college on students and their educational development.

EDUC-UL 5557 Legal Aspects Of Higher Education Credits: 3
Study of legal issues within higher education. Focus is on state and federal law and regulations as they pertain to issues ranging from academic freedom to governance and administration. Focus on strategies for preventive law is a major component of the course.

EDUC-UL 5558 Advanced Student Development Theory Credits: 3
A focused and in-depth examination of developmental theories related to the college student. This course builds on information presented in EDUC-UL 5556.
Prerequisites: EDUC-UL 5556.
EDUC-UL 5559 Current Issues In Community Colleges Credits: 3
A course responsive to the contemporary issues in community college administration, addressing interesting and important topics that fall outside the scope of other courses in the higher education curriculum. Students will have an overview of the role of community colleges within the larger organization of colleges and universities in the U.S. higher education system.
Prerequisites: Graduate student status.

EDUC-UL 5560 Leadership In Higher Education Credits: 3
Focus on leadership, connections among different approaches to leadership, different forms of power, and different leadership behaviors. A series of opportunities to think systematically about leadership and to increase a student's personal leadership capacities in higher education will be provided.

EDUC-UL 5562 Gender & Leadership In Educ: Implications For Prof. Effectiveness Credits: 3
This course is for women and men who want to understand better the unique challenges and opportunities facing leaders in today's educational organizations. Exploration of connections between gender and leadership is the focus of study. Students will probe linkages between gender and leadership for their own leadership and for organizational policy and practice.

EDUC-UL 5564 History Of Higher Education Credits: 3
Study of the evolution of the constituencies within different types of American higher education institutions. The development of professional, practical, and graduate education will be examined as well 20th century alternatives to the liberal arts colleges and research university models.

EDUC-UL 5566 Racial And Ethnic Diversity, And Cultural Understanding Credits: 3
An exploration of the ideological and historical construction of education for social equality, and subsequent issues of race, ethnicity, and class that influence colleges and universities in the U.S. today.

EDUC-UL 5567 Higher Education Capstone Credits: 3
This course will provide a culminating experience for students in the Higher Education Masters program. All aspects of higher education administration will be examined and synthesized to enhance student ability to understand and operate in a complex setting.

EDUC-UL 5570 Administrative Practicum Higher Education Credits: 3-6
Assigned administrative responsibilities under supervision of practicing higher educational administrator, seminar and written project accompany field experiences.

EDUC-UL 5571 Internship In Higher Education Credits: 3-16
Applied experiences in a planned, supervised program. Seminar accompanies internship experiences.

EDUC-UL 5572 Higher Education Administration: The Profession Credits: 3
A course to introduce the prospective or new student affairs professional to all facets of higher educational administration. The course provides a balance of presentations by student affairs professionals, participation and observation in a variety of higher education offices and individual research projects. It is anticipated that students will visit several institutions of higher education and will participate in a service-learning project.

EDUC-UL 5574 Administrative Practicum Credits: 1-6
Assigned administrative responsibilities under supervision of practicing educational administrators seminar and written project accompany field experiences.

EDUC-UL 5575 Internship In Administration Credits: 1-16
Applied experiences in a planned, supervised educational administration program. Seminar accompanies internship experiences.

EDUC-UL 5589 Special Topics In Educational Leadership Credits: 1-6
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed on the semester bulletin.

EDUC-UL 5589AD Special Topics In Educational Leadership Credits: 1-6

EDUC-UL 5589BE Special Topics in Educational Leadership Credits: 1-6
Special Topics in Educational Leadership

EDUC-UL 5589CP Special Topics In Educational Leadership Credits: 1-6

EDUC-UL 5589EA Special Topics In Educational Leadership Credits: 1-6
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed on the semester bulletin.

EDUC-UL 5589ED Special Topics In Educational Leadership Credits: 1-6
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed on the semester bulletin.

EDUC-UL 5589EL Special Topics In Educational Leadership Credits: 1-6
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed on the semester bulletin.

EDUC-UL 5589ET Special Topics In Educational Leadership Credits: 1-6
A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors, and prerequisites to be listed on the semester bulletin.
EDUC-UL 5589HR Special Topics In Educational Leadership Credits: 1-6
EDUC-UL 5589LR Special Topics In Educational Leadership Credits: 1-6
EDUC-UL 5589OB Special Topics In Educational Leadership Credits: 1-6
EDUC-UL 5589SM Special Topics In Educational Leadership Credits: 1-6
EDUC-UL 5590 Seminar Credits: 3
Discussion and evaluation of literature in Education Administration.
EDUC-UL 5598 Individual Studies Credits: 1-6
Review of the research and trends relative to selected problems in education.
EDUC-UL 5601 Research In Education Administration: Qualitative Theory & Design Credits: 3
First of two courses in advanced qualitative research in higher education and educational administration. Focus is on the theory and design of qualitative work. Students will become familiar with the various ontological, epistemological, and methodological assumptions that guide research in the social sciences and be able to make informed choices about inquiry techniques for dissertation and future research.
EDUC-UL 5602 Seminar In The History Of American Urban Education Credits: 3
A study of the historical development of American urban educational institutions and ideas and of how that development is embedded within the broader context of social, political, and economic change in the United States.
EDUC-UL 5603 Research In Education Administration: Qualitative Data & Analysis Credits: 3
Second of two courses in advanced qualitative research in higher education and educational administration. Focus is on data collection and analysis in qualitative work. Students will become familiar with various data gathering techniques and devices for interpreting qualitative data and drawing meaningful conclusions. This information will guide students in dissertation and future research.
Prerequisites: EDUC-UL 5601.
EDUC-UL 5604 Introduction to Doctoral Study Credits: 3
This course is designed as an introductory course in the doctoral sequence for the EdD in Educational Administration with an emphasis in Higher Education. The course is designed to introduce students to the tasks and processes involved in the completion of the doctoral requirements. It is required for all entering doctoral students.
Prerequisites: Admission to the doctoral program.
EDUC-UL 5616 Analysis Of Educational Theory Formation Credits: 3
Study and application of criteria for evaluating the adequacy of educational theories and evaluating the relevance to theories of research studies.
EDUC-UL 5626 Theory In Educational Administration Credits: 3
Leadership theories and research; bureaucracy and organizational processes; new directions in organizational analysis; sociological and psychological concepts in school administration.
Prerequisites: EDUC-UL 5501 (or equivalent).
EDUC-UL 5627 Advanced Educational Supervision Credits: 3
Principles and concepts of educational supervision and implementation.
Prerequisites: EDUC-UL 5507 (or equivalent).
EDUC-UL 5628 The Superintendency Credits: 3
Analysis and overview of the nature, functions and activities of the public school superintendency including: historical and philosophical foundations; board-staff and other governing body relationships and functions; professional staff relations and management; public relations and communication; inter-governmental relations and responsibilities, and the functions of planning, direction and supervision of the instructional enterprise.
EDUC-UL 5634 Faculty & Curricular Issues Higher Education Credits: 3
This course will explore different facets of college and university curricula. This course will include varying ways curriculum has been structured and the debates that have surrounded the structure and content. Faculty issues will be explored via the curriculum and will include a focus on workload policies and practices.
Prerequisites: Admission to the doctoral program.
EDUC-UL 5635 Topics In Higher Education Credits: 3
Organization of higher education, public and private financing; accreditation; academic freedom; policy development; community relations; curricular patterns, selected current issues.
Prerequisites: EDUC-UL 5550 (or equivalent).
EDUC-UL 5636 Policy Issues in Higher Education Credits: 3
This course is intended for those whose roles as educational leaders requires them to participate in the analysis and development of policies associated with educational programs and practice. Students will be able to understand the characteristics of a well developed policy agenda, obstacles to policy implementation, and interpretations related to policy implementation. Concurrently, institutional, political, economic, social, and moral consequences of various policies will be explored.
Prerequisites: Admission to the doctoral program.
EDUC-UL 5637 Community College Credits: 3
Investigation of the purposes, programs, and the problems in the American community college movement; analysis of the structure, governance, and financial support of community colleges.
Prerequisites: Doctoral status.

EDUC-UL 5640 Apprenticeship And Conference In College Training Credits: 2-5
Apprenticeship experience in preparing, conducting, and evaluating college teaching under the direction of and in conference with supervising professors. Some attention to student personnel and administration in higher education.

EDUC-UL 5652 Financial Aspects Of Higher Education Credits: 3
This course is designed for graduate students with a basic understanding of the area of Higher Education Administration. The course examines basic concepts and principles of finance in higher education in the United States. Students are expected to: Develop an understanding of 1) the issues and fiscal problems of higher education, 2) the roles and responsibilities of financial officers in higher education, and 3) possible future trends in the financing of higher education.
Prerequisites: Doctoral status.

EDUC-UL 5655 Studies In Philosophy Of Education Credits: 3
Study of special topics in the philosophy of education.
Prerequisites: EDUC-UL 5523, EDUC-UL 5526.

EDUC-UL 5660 Effective Practices II Credits: 3
This course builds on the general understanding of leadership and professional practices developed in Leadership in Education Effective Practices I. The course addresses key leadership challenges and decision making in today's complex work world. The course uses reading on selected issues, case discussions, and role plays to move beyond theory and understanding to application and effectiveness.

EDUC-UL 5665 The Urban University Credits: 3
This course examines the development and unique aspects, characteristics and role of the urban university. In addition to an exploration of the historical relationship between urbanization in American society and university development and evolution, seminars will focus attention on undergraduate and graduate education, faculty development, community relations, and regional and economic development for urban institutions.
Prerequisites: Doctoral status.

EDUC-UL 5685 Problems And Issues In Education & Urban Leadership Credits: 3
This course serves as the capstone class for all doctoral students in education. The course requires analysis of successful dissertations in urban education and prepares students to write their own dissertation relative to urban study and education.

EDUC-UL 5690 Special Problems Credits: 1-6
Individual studies; thesis exploration, special reading.

EDUC-UL 5690A Special Problems Credits: 1-6
Individual studies; thesis exploration, special reading.

EDUC-UL 5696 Dissertation Administration And Community Leadership Credits: 1-16
Culminating written research project for doctoral students in Urban Leadership and Policy Studies.

**Urban Planning and Design (UPD)**

**Courses**

UPD 5526 History of Urban Planning & Design Credits: 3
The course provides a survey of the history of urban planning and design with emphasis on the nineteenth and twentieth centuries in the United States. The course also teaches basic historic research methods.

UPD 5596 Directed Study In Urban Planning And Design Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor.

UPD 5596A Directed Study In Urban Planning And Design Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor.

UPD 5596B Directed Study In Urban Planning And Design Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor.

UPD 5596C Directed Study In Urban Planning And Design Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor.

UPD 5599 Special Topics In Urban Planning And Design Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor.

UPD 5599A Special Topics In Urban Planning And Design Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor.
UPD 5599B Special Topics In Urban Planning And Design Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor.

UPD 5599C Special Topics In Urban Planning And Design Credits: 1-3
Intensive reading and/or research in an area selected by the student in consultation with the instructor.

UPD 5630 Quantitative Planning Methods I Credits: 3
This course introduces graduate students to quantitative methods in urban planning analysis. Topics include relating built form to function, demographic forecasting, economic impact analysis, trip generation, and housing market dynamics. **Prerequisites:** STAT 235.

UPD 5700 Advanced Planning Theory & Practice Credits: 3
Exploration of contemporary planning theory and practice, including planning knowledge, skills, values, and ethics.

UPD 5710 Historic Preservation Studio Credits: 3
Studio instruction in historic preservation planning focusing on research, context, evaluation, policy, and plan creation for historic resources.

UPD 5740 Advanced GIS for Urban Planning Credits: 3
This advanced level GIS course is designed to expose graduate students to high level GIS techniques and geospatial analysis in the urban planning context. Students will learn data management skills in GIS and advanced geoprocessing tools with hand-on experiences. Students will also have an opportunity to work on a real world GIS project as part of course requirements. **Prerequisites:** UPD 203 (or equivalent).

UPD 5742 Transportation Planning Credits: 3
This course provides fundamental theories, methods, and contemporary issues in transportation planning. The topics covered in this course include the transportation planning process, transportation systems, travel demand analysis, and policy issues such as the linkage between land use and transportation and environmental impacts, and traffic congestion.

UPD 5743 Introduction to Historic Preservation Credits: 3
The course introduces the history and theory of historic preservation through a survey of major issues in the field from a planning perspective. The course focuses on preservation through cultural, social, historical, legal, policy, and economic lenses, primarily in the United States.

UPD 5744 History of the Built Environment Credits: 3
Survey of the built environment concentrating on nineteenth and twentieth century design in the United States.

UPD 5745 Historic Preservation Methods Credits: 3
Exploration of historic preservation methods, including survey, documentation, policy, and management approaches used in practice.

UPD 5746 Urban Environmental Planning Credits: 3
Urban environmental planning examines ecological change due to urbanization. It looks at ways to measure and demonstrate ecological change at the site, neighborhood, and regional scales. Students incorporate environmental ideas and policies into plans developed for a client.

UPD 5747 Urban Redevelopment Credits: 3
This course examines techniques of urban redevelopment within urban planning and real estate. Graduate students learn about the development process, real estate markets, techniques of development finance and local policy approaches to urban redevelopment incentives.

UPD 5750 American Housing Credits: 3
Students will explore housing in cultural, design, and historical terms and examine contemporary American housing policy.

UPD 5790 Historic Preservation Internship Credits: 3
Off-campus work experience with an approved professional, government, or nonprofit agency sponsor. **Prerequisites:** UPD 5743.

**Viola (VIOLA)**

**Courses**

VIOLA 5300 Studio Class Credits: 0
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance. **Cross Listings:** VIOLA 300.

VIOLA 5500A Graduate Viola-Secondary Credits: 2

VIOLA 5500B Special Applied Studies Credits: 2
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

VIOLA 5500C Applied Study of a Second Instrument Credit: 1
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.
VIOLA 5501 Graduate Viola - Masters Performance Credits: 4
VIOLA 5601 Graduate Viola - Doctoral Performance Credits: 4

**Violin (VIOLIN)**

**Courses**

VIOLIN 5300 Studio Class Credits: 0  
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.  
**Cross Listings:** VIOLIN 300.

VIOLIN 5500A Graduate Violin-Secondary Credits: 2
VIOLIN 5500B Special Applied Studies Credits: 2  
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

VIOLIN 5500C Applied Study of a Second Instrument Credit: 1  
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

VIOLIN 5501 Graduate Violin - Masters Performance Credits: 4
VIOLIN 5601 Graduate Violin - Doctoral Performance Credits: 4

**Voice (VOICE)**

**Courses**

VOICE 5200 Vocal Coaching: Recital and Operatic Repertoire Credit: 1  
The purpose of vocal coaching is to aid singers in refining their performance in terms of musical style, nuance, language, and character. It is intended to amplify the singer’s understanding of aspects of performance including musical shaping, dynamic contrasts, poetic/textual architecture, traditional approaches to literature of various periods and styles, and appropriate performance practices.  
**Prerequisites:** You must be a graduate student in vocal performance at the Conservatory of Music Dance.

VOICE 5300 Studio Class Credits: 0  
Experiential lab where students gain orientation and experience with pedagogy, literature, and performance.

VOICE 5311 University Singers Credit: 1  
Mixed chorus specializing in choral-orchestral literature. May be repeated for credit. Open by audition to University students, regardless of major.

VOICE 5500A Graduate Voice-Secondary Credits: 2
VOICE 5500B Special Applied Studies Credits: 2  
One-hour lesson weekly. This course is for pedagogical or review purposes. An audition is required, and a jury for comments only may be held at the discretion of the division. May be repeated for credit.

VOICE 5500C Applied Study of a Second Instrument Credit: 1  
One half-hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required.

VOICE 5501 Graduate Voice - Masters Performance Credits: 4  
One hour weekly participation in Vocal Performance Seminar is required

VOICE 5502 Applied Voice Credits: 2  
Applied instruction in voice, focusing primarily on the pedagogical aspects of proper solo vocal singing technique for the graduate level singer.

VOICE 5601 Graduate Voice - Doctoral Performance Credits: 4  
One hour weekly participation in Vocal Performance is required.
GENERAL EDUCATION REQUIREMENTS

General Education

All UMKC undergraduate students complete general education requirements. The UMKC General Education Core (UMKC Core) curriculum is designed to provide knowledge and skills that are important for all students, no matter their major or field of study. For full details, see umkc.edu/core (https://www.umkc.edu/core) or the UMKC General Education Core tab (p. 2251).

To facilitate transfer among Missouri’s public colleges and universities, a state-wide general education curriculum (Core 42) has been developed. For full details, see the Missouri Transfer Core 42 tab (p. 2250).

Missouri Transfer Core 42

General Education Requirements for Transfer Students

Per a requirement passed into Missouri law in 2016, a state-wide general education curriculum specific to transfer students was created to facilitate transfer among Missouri’s public colleges and universities. This new state-wide curriculum requires 42 hours of coursework spread amongst five knowledge areas:

- Mathematical sciences – three (3) credit hours
- Natural sciences – seven (7) credit hours, including a course with a lab
- Humanities and fine arts – nine (9) credit hours from at least two disciplines
- Social and behavioral sciences – nine (9) credit hours, including a civics course
- Written and oral communications – nine (9) credit hours (six in written communications and three in oral communications)
- Additional hours – five (5) additional credit hours distributed amongst the above five knowledge areas.

All transfer students to UMKC from an accredited regional institution shall be treated the same as those transferring from a public Missouri institution of higher education. Starting Fall 2018, new incoming transfer students may be eligible to complete either the UMKC Core or Core 42 general education curriculum. For more details on Core 42, please visit - https://dhe.mo.gov/core42.php.

Transfer Students with a Completed Core 42, an Associate of Arts degree or a Bachelor’s degree

- Students who complete the CORE 42 curriculum at a participating Missouri institution, an Associate of Arts degree from any regionally accredited institution, or a Bachelor’s degree from a regionally accredited institution before transferring will have met all UMKC general education requirements.

Transfer Students with General Education Coursework in Progress

- Students transferring to UMKC with at least twelve (12) post-high school college credit hours but without the completed Core 42 or Associate of Arts degree may have the option to complete either the UMKC Core or Core 42.
- Transfer guides are built based on the optimal general education curriculum to create your shortest path to graduation from UMKC.
- Your advisor will review your transfer credits with you prior to the end of your first semester at UMKC to help you determine which general education curriculum best suits your degree plan and moves you closest to graduation.
- General education requirements for some degrees – including education, engineering and nursing – differ due to professional licensing and other requirements. For these programs it is not to the student’s advantage to complete the Core 42 curriculum because Core 42 likely adds hours to the student’s individual plan of study to complete their UMKC degree. To avoid adding time and cost to the student’s UMKC experience, transfer students are encouraged to complete the UMKC Core for the following majors:
  - Biology BS (all emphasis areas)
  - Civil Engineering BS
  - Computer Science BS
  - Dance BFA
  - Dental Hygiene BS
  - Electrical & Computer Engineering BS
  - Jazz Studies BM
  - Mechanical Engineering BS
  - Music Composition BM
  - Music Theory BM
  - Music Education BME
  - Music Performance BM (all emphasis areas)
Transfer Credit Appeal Policy

Transfer students and/or post-secondary institutions who are not satisfied with a decision regarding the awarding of transfer credit may appeal the articulation of their coursework by completing a Transfer Articulation Appeal form. Students have 10 business days following notification of the transfer articulation decision to file an appeal. Submission of this form shall initiate a two-level review process facilitated by the university's Transfer & Articulation Officer (TAO).

UMKC General Education Core

UMKC General Education Core

UMKC General Education Core Website (http://www.umkc.edu/core)

General Education Learning Outcomes

http://www.umkc.edu/core/about/outcomes.cfm

The UMKC General Education Core curriculum is designed to build students’ capacity for intellectual inquiry and discovery, critical reasoning and effective communication. By completing the General Education Core, the successful graduate will acquire skills and knowledge in the following areas:

- Communication
- Technology and Information Literacy
- Scientific Reasoning and Quantitative Analysis
- Arts and Humanities
- Interdisciplinary and Innovative Thinking
- Culture and Diversity
- Human Actions, Values and Ethics
- Civic and Community Engagement

General Education Core Curriculum: Overview

The UMKC General Education Core is the university-wide curriculum that all undergraduate students will complete. The 30-credit hour core curriculum includes three course types designated as Anchor, Discourse and Focus.

18 hours (One 6-hour pair at each level)

12 hours (One 3-hour course in each focus area)

Anchor

Anchor courses take an interdisciplinary approach to teach students critical thinking. The Anchor classes cut across traditionally recognized academic disciplines. Although there may be some overlap between the General Education Core courses and major requirements, Anchor I and Anchor II courses may not be used to satisfy major or degree-specific requirements.

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
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<td>ANCH 102</td>
<td>Introduction to Urban Studies</td>
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<td>ANCH 103</td>
<td>Muse</td>
<td>3</td>
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<tr>
<td>ANCH 104</td>
<td>The Countercultural Experience</td>
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<td>ANCH 105</td>
<td>The Value of Beauty</td>
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<td>ANCH 106</td>
<td>Money, Medicine and Morals</td>
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<td>ANCH 107</td>
<td>Global Inequality: Slavery in Historical and Archaeological Perspective</td>
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<td>ANCH 108</td>
<td>Surfing the Matrix: Keeping Your Head Above Water in a Sea of Information</td>
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<td>ANCH 109</td>
<td>Education and Urban Society</td>
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<td>ANCH 150</td>
<td>Computing and Engineering in Society</td>
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<tr>
<td>ANCH 199</td>
<td>Anchor I Special Topics</td>
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General Education Requirements

Anchor II - Culture and Diversity

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<td>ANCH 202</td>
<td>Crossing Boundaries</td>
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<tr>
<td>ANCH 204</td>
<td>Women in the Ancient World</td>
<td>3</td>
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<tr>
<td>ANCH 205</td>
<td>Self in a Multicultural Society</td>
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<td>ANCH 206</td>
<td>Queer in the City/An Introduction to LGBT Studies</td>
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<td>ANCH 207</td>
<td>The Classical Mediterranean World</td>
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<tr>
<td>ANCH 208</td>
<td>Women in the Medieval World</td>
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<tr>
<td>ANCH 209</td>
<td>World Cultures, Histories and Ideas</td>
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<td>ANCH 210</td>
<td>American Cultures, Histories &amp; Ideas</td>
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<td>ANCH 211</td>
<td>Cities of the World</td>
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<tr>
<td>ANCH 212</td>
<td>Critical Issues in Women’s, Gender, and Sexuality Studies</td>
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<td>ANCH 213</td>
<td>Empire</td>
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<tr>
<td>ANCH 214</td>
<td>European Cultures, Histories &amp; Ideas</td>
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<td>ANCH H214</td>
<td>European Cultures, Histories &amp; Ideas</td>
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<td>ANCH 215</td>
<td>Crossing Boundaries: The Latina/o Immigrant Experience</td>
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<td>ANCH 216</td>
<td>Intersections of Race, Class, Gender, and Sexuality</td>
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<td>ANCH 218</td>
<td>Introduction to Ethnic Studies</td>
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<td>ANCH 220</td>
<td>We Shall (All) Overcome: Civil Rights Movements in Contemporary America</td>
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<td>Great Ideas: The Idea of Culture</td>
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<td>ANCH 299</td>
<td>Anchor II Special Topics</td>
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Anchor III - Civic and Community Engagement

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<td>ANCH 302</td>
<td>Archaeology of Ancient Disasters</td>
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<td>ANCH 303</td>
<td>Film Adaptation</td>
<td>3</td>
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<td>ANCH 304</td>
<td>Telling Stories: History, Memory, and American Life</td>
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<tr>
<td>ANCH 305</td>
<td>The Artist in Society</td>
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<td>ANCH 306</td>
<td>From Bench to Bedside: Translational Research</td>
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<tr>
<td>ANCH 307</td>
<td>Frauds, Myths and Mysteries in Archaeology</td>
<td>3</td>
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<tr>
<td>ANCH 308</td>
<td>Ethical Issues in Computing &amp; Engineering</td>
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<td>ANCH 309</td>
<td>Mechanical Design Synthesis I</td>
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<td>ANCH 310</td>
<td>Innovation and the Aging Population</td>
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<td>ANCH 311</td>
<td>Civil Engineering Capstone Design II</td>
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<td>ANCH 314</td>
<td>Interdisciplinary Community Oral Health Field Experiences</td>
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<td>ANCH 315</td>
<td>Application to Practice I</td>
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<td>ANCH 317</td>
<td>Science, Technology, and Society</td>
<td>3</td>
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<tr>
<td>ANCH 318</td>
<td>From Oil Gushers to Fracking: A History of American Petroleum</td>
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<tr>
<td>ANCH 319</td>
<td>Immersion in Urban Communities</td>
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<tr>
<td>ANCH 320</td>
<td>Visual Culture and Civic Engagement</td>
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<td>ANCH H397</td>
<td>Public Urban Education</td>
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<td>ANCH H398</td>
<td>CITYLAB: ADDRESSING URBAN POLICY AND PUBLIC HEALTH THROUGH COMMUNITY ENGAGEMENT</td>
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<td>ANCH 399</td>
<td>Anchor III Special Topics</td>
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<td>ANCH H399</td>
<td>Anchor III Special Topics</td>
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</table>

1 General Education Learning Outcome: Human Actions, Values & Ethics or Scientific Reasoning & Quantitative Analysis.
2 General Education Learning Outcome: Culture & Diversity
3 General Education Learning Outcome: Interdisciplinary & Innovative Thinking and Civic & Community Engagement.

Discourse

Discourse classes teach speech, writing and other presentation and communication skills in an integrated environment. Anchor and Discourse classes are paired so that each class may reinforce the skills and knowledge gained in the paired class.
**Focus**

These discipline-specific classes give students a broad base of skills and knowledge and serve as a strong foundation for all students in every major. Students take four Focus courses, one from each of three areas: Arts and Humanities (Focus A); Scientific Reasoning and Quantitative Analysis (Focus B); and Human Actions, Values and Ethics (Focus C). The fourth Focus class is an elective from any one of the three areas. In some cases, Focus courses may simultaneously satisfy major or degree-specific requirements.

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### Focus A - Arts and Humanities

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>ART 105</td>
<td>Introduction To Photography</td>
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<td>ART 114</td>
<td>Foundation Digital Design</td>
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<td>ART 121</td>
<td>Foundation 2D Design</td>
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<td>ART-HIST 110</td>
<td>Introduction to the History of Art: Pyramids to Picasso</td>
<td>3</td>
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<tr>
<td>ART-HIST 201</td>
<td>From Cave Paintings to Cathedrals</td>
<td>3</td>
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<tr>
<td>ART-HIST 202</td>
<td>From Michelangelo to Modernism</td>
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<tr>
<td>ART-HIST 264</td>
<td>The Grotesque in Art and Culture</td>
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<tr>
<td>ART-HIST 303</td>
<td>World Currents of Contemporary Art</td>
<td>3</td>
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<tr>
<td>ART-HIST 315</td>
<td>Arts Of African and New World Cultures</td>
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<td>BLKS 315</td>
<td>Arts of African and New World Cultures</td>
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<td>BLKS 349</td>
<td>Symbols and Codes from the Diaspora: African American Visual Arts Survey</td>
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<td>CLASSICS 119</td>
<td>Myth and Literature</td>
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<tr>
<td>CLASSICS 120</td>
<td>Literary Monstrosities</td>
<td>3</td>
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<tr>
<td>CLASSICS 131</td>
<td>Seven Wonders and Beyond: Archaeological Wonders of the Ancient World</td>
<td>3</td>
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<tr>
<td>CLASSICS 210</td>
<td>Foundations Of Ancient World Literature I</td>
<td>3</td>
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<td>CLASSICS 300CY</td>
<td>Ancient World in Cinema</td>
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<td>COMM-ST 230</td>
<td>Introduction to Film Studies</td>
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<td>COMM-ST 300CY</td>
<td>Ancient World in Cinema</td>
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<td>COMM-ST 345</td>
<td>German Film</td>
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<td>CONSVTY 103N</td>
<td>Fundamentals of Music</td>
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<td>CONSVTY 118</td>
<td>Electronica</td>
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<td>Music Appreciation</td>
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<td>CONSVTY 125</td>
<td>History and Development of Rock and Roll</td>
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<td>CONSVTY 126</td>
<td>Introduction to World Music</td>
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<td>CONSVTY 341</td>
<td>Principles of Music Business</td>
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<td>CONSVTY 342</td>
<td>This is Your Brain on Music</td>
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<td>CONSVTY 351</td>
<td>History of Music in Western Civilization I</td>
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<td>CONSVTY 352</td>
<td>History of Music in Western Civilization II</td>
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<td>CONSVTY 364</td>
<td>Yeah, Yeah, Yeah: The Cultural and Musical Impact of the Beatles</td>
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<td>DANCE 307</td>
<td>Every Body Dances</td>
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<td>Myth and Literature</td>
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<td>Literary Monstrosities</td>
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<td>True Lives: Autobiographical Arts and Acts</td>
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<td>Popular Literature</td>
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<td>ENGLISH 130</td>
<td>Introduction to Human Language</td>
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<td>ENGLISH 141</td>
<td>Women and Literary Culture/The Heroine in Literature</td>
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<td>World Literature in English</td>
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<td>Introduction To Fiction</td>
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<td>ENGLISH 215</td>
<td>Introduction To Poetry</td>
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<td>ENGLISH 216</td>
<td>The Craft of Creative Writing</td>
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<td>ENGLISH 242</td>
<td>Women Writing/Women Reading</td>
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<td>ENGLISH 273</td>
<td>Science Fiction</td>
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<td>ENGLISH 278</td>
<td>Asian American Literature</td>
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<td>Arthurian Legends</td>
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<td>Special Readings: Detective Fiction</td>
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<td>The Meaning Of Architecture</td>
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<td>FRENCH 301</td>
<td>Introduction to French Literature</td>
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<td>FRENCH 304</td>
<td>Masterpieces Of French Literature II</td>
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<td>French Texts in Translation</td>
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<td>FRENCH 354</td>
<td>French Civilization III: Lyon, Crossroads of France and Europe</td>
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<td>FRN-LNG 302</td>
<td>Love and Death in European Medieval Literature</td>
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<td>GERMAN 341</td>
<td>German Film</td>
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<td>Eastern European Film In Context</td>
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<td>GERMAN 344</td>
<td>Scandinavian Film</td>
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<td>GERMAN 481</td>
<td>East German (DEFA) Film</td>
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<td>HISTORY 201</td>
<td>European History to 1600</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 202</td>
<td>European History since 1600</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 206</td>
<td>World History To 1450</td>
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<tr>
<td>HISTORY 208</td>
<td>World History since 1450</td>
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<td>HISTORY 306A</td>
<td>History of Christianity to the Middle Ages</td>
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<td>HISTORY 307A</td>
<td>History of Christianity from the Middle Ages to Present</td>
<td>3</td>
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<tr>
<td>HISTORY 428A</td>
<td>History Of The Body</td>
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<tr>
<td>HISTORY 433R</td>
<td>History of Britain 1603-1832</td>
<td>3</td>
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<tr>
<td>HISTORY 434R</td>
<td>History of Britain 1832-Present</td>
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<tr>
<td>HONORS 210</td>
<td>Reading the World</td>
<td>3</td>
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<tr>
<td>PHILOS 210</td>
<td>Introduction to Philosophy</td>
<td>3</td>
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<tr>
<td>TCH-ED 201</td>
<td>Children's Literature</td>
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<tr>
<td>THEATRE 121</td>
<td>Oral Interpretation Of Literature</td>
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<tr>
<td>THEATRE 130</td>
<td>Foundations Of Fine Arts Theatre</td>
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**Focus B - Scientific Reasoning and Quantitative Analysis**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>ASTR 150</td>
<td>Astronomy: Motions of the Cosmos</td>
<td>3</td>
</tr>
<tr>
<td>ASTR 155</td>
<td>Astronomy: Starlight and Star Stuff</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 102</td>
<td>Biology and Living</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 108</td>
<td>General Biology I</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 109</td>
<td>General Biology II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 115</td>
<td>Elements Of Chemistry I</td>
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</tr>
<tr>
<td>CHEM 206</td>
<td>Human Nutrition</td>
<td>3</td>
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<tr>
<td>CHEM 211</td>
<td>General Chemistry I</td>
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<tr>
<td>CHEM 211L</td>
<td>Experimental General Chemistry I</td>
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<td>CHEM 212R</td>
<td>General Chemistry II</td>
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<tr>
<td>COMP-SCI 100</td>
<td>Computer Fundamentals and Applications</td>
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<tr>
<td>ECON 201</td>
<td>Introduction To Economics I</td>
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<tr>
<td>ECON 202</td>
<td>Introduction To Economics II</td>
<td>3</td>
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<tr>
<td>EDUC-R&amp;P 255</td>
<td>Understanding Data Through Sports: Sabermetrics</td>
<td>3</td>
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<tr>
<td>ENV-SCI 110R</td>
<td>Understanding the Earth: Introduction to Environmental Science and Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>ENV-SCI 210</td>
<td>Issues in Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>GEOLOGY 220</td>
<td>General Geology</td>
<td>3</td>
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<td>Course Title</td>
<td>Credits</td>
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<td>GEOLOGY 250L</td>
<td>Field Methods in Earth and Environmental Science</td>
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<tr>
<td>HLSC 476</td>
<td>Scientific Inquiry</td>
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<tr>
<td>LS-MCRB 121</td>
<td>Human Biology III (Microbiology)</td>
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<tr>
<td>LS-PHYS 217</td>
<td>Human Physiology</td>
<td>3</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Precalculus Algebra</td>
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<tr>
<td>MATH 116</td>
<td>Mathematics For Liberal Arts</td>
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</tr>
<tr>
<td>MATH 120</td>
<td>Precalculus</td>
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<tr>
<td>MATH 130</td>
<td>Mathematics for Teachers: Number Systems</td>
<td>3</td>
</tr>
<tr>
<td>MATH 140</td>
<td>Mathematics for Teachers: Elementary Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MATH 210</td>
<td>Calculus I</td>
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<tr>
<td>MATH 216</td>
<td>Calculus for Biological Sciences</td>
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<tr>
<td>NAT-SCI 130</td>
<td>Physics of Sports</td>
<td>3</td>
</tr>
<tr>
<td>NAT-SCI 140</td>
<td>How Things Work</td>
<td>3</td>
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<tr>
<td>NAT-SCI 140L</td>
<td>How Things Work Laboratory</td>
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<tr>
<td>NAT-SCI 150</td>
<td>Astronomy: Motions of the Cosmos</td>
<td>3</td>
</tr>
<tr>
<td>NAT-SCI 155</td>
<td>Astronomy: Starlight and Star Stuff</td>
<td>3</td>
</tr>
<tr>
<td>NAT-SCI 171</td>
<td>Physics For Future Presidents</td>
<td>3</td>
</tr>
<tr>
<td>NURSE 476</td>
<td>Scientific Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>PHILOS 222</td>
<td>Foundations Of Logic and Scientific Reasoning</td>
<td>3</td>
</tr>
<tr>
<td>PHY-SCI 130</td>
<td>Physics of Sports</td>
<td>3</td>
</tr>
<tr>
<td>PHY-SCI 140</td>
<td>How Things Work</td>
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<tr>
<td>PHY-SCI 140L</td>
<td>How Things Work Laboratory</td>
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<tr>
<td>PHY-SCI 150</td>
<td>Astronomy: Motions of the Cosmos</td>
<td>3</td>
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<tr>
<td>PHY-SCI 155</td>
<td>Astronomy: Starlight and Star Stuff</td>
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<tr>
<td>PHY-SCI 171</td>
<td>Physics For Future Presidents</td>
<td>3</td>
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<td>PHYSICS 130</td>
<td>Physics of Sports</td>
<td>3</td>
</tr>
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<td>PHYSICS 140</td>
<td>How Things Work</td>
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<tr>
<td>PHYSICS 140L</td>
<td>How Things Work Laboratory</td>
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<td>PHYSICS 150</td>
<td>Astronomy: Motions of the Cosmos</td>
<td>3</td>
</tr>
<tr>
<td>PHYSICS 155</td>
<td>Astronomy: Starlight and Star Stuff</td>
<td>3</td>
</tr>
<tr>
<td>PHYSICS 171</td>
<td>Physics for Future Presidents</td>
<td>3</td>
</tr>
<tr>
<td>PHYSICS 210</td>
<td>General Physics I</td>
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</tr>
<tr>
<td>PHYSICS 220</td>
<td>General Physics II</td>
<td>4</td>
</tr>
<tr>
<td>PHYSICS 240</td>
<td>Physics For Scientists and Engineers I</td>
<td>5</td>
</tr>
<tr>
<td>PHYSICS 250</td>
<td>Physics For Scientists and Engineers II</td>
<td>5</td>
</tr>
<tr>
<td>STAT 235</td>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>UPD 280</td>
<td>Land Use Planning</td>
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**Focus C - Human Actions, Values and Ethics**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>ANTHRO 103</td>
<td>Introduction To Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>BLKS 201</td>
<td>Global Systems and the Origins of Black American Culture and Institutions</td>
<td>3</td>
</tr>
<tr>
<td>CJC 101</td>
<td>Introduction To Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CJC 240</td>
<td>Delinquency And Juvenile Justice</td>
<td>3</td>
</tr>
<tr>
<td>CJC 280</td>
<td>Gangs and Crime</td>
<td>3</td>
</tr>
<tr>
<td>CJC 282</td>
<td>Criminal Justice &amp; Criminology in Popular Media</td>
<td>3</td>
</tr>
<tr>
<td>CLASSICS 376</td>
<td>Concepts of the Hero in Ancient Literature and World Cinema</td>
<td>3</td>
</tr>
<tr>
<td>COMM-ST 317</td>
<td>Persuasion</td>
<td>3</td>
</tr>
<tr>
<td>COMM-ST 323</td>
<td>Concepts of the Hero in Ancient Literature and World Cinema</td>
<td>3</td>
</tr>
<tr>
<td>CPCE 230</td>
<td>Effective Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 376</td>
<td>Concepts of the Hero in Ancient Literature and World Cinema</td>
<td>3</td>
</tr>
<tr>
<td>ENT 326</td>
<td>Creativity, Innovation, and Problem Solving</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877</td>
<td>3</td>
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</table>
HISTORY 213  Researching Kansas City  3
HISTORY 215  Getting High: Alcohol & Drugs in American History  3
HISTORY 308B  Cold War, Conformity, and Dissent: America, 1945-1989  3
HISTORY 361  America and the World in the Global Age: 1900 to the Present  3
HONORS 215  Researching Kansas City  3
HONORS 230  Honors American Government  3
LLS 201  Introduction to Latina/o Studies  3
POL-SCI 210  American Government  3
POL-SCI 220  Introduction To Comparative Politics  3
POL-SCI 221  Introduction to Comparative Politics and Research  3
POL-SCI 309  Public Opinion  3
PSYCH 210  General Psychology  3
PSYCH H210  General Psychology  3
SOCIOL 101  Sociology: An Introduction  3
TCH-ED 300  Summer Community Experience  3
UPD 260  History Of Planning And Urban Design  3
WGS 201  Introduction To Women’s, Gender, and Sexuality Studies  3

Application of Previous Coursework

Students may apply transfer credit, Advanced Placement credit and International Baccalaureate credit toward UMKC General Education Core course requirements, with the exception of the level III Anchor and Discourse 300 classes. Coursework that is not directly equivalent to UMKC’s Anchor and Discourse courses may be used to satisfy some Anchor and Discourse requirements as follows, but only if the coursework was completed prior to enrolling at UMKC as a degree-seeking student.

One of the following satisfies Discourse 100:

- English 110 or its equivalent
- Communication Studies 110 or its equivalent
- ACT English sub score of 30 or greater
- SAT Writing score of 690 or greater

Either of the following satisfies both Discourse 100 and 200:

- English 110 or its equivalent (or qualifying ACT or SAT sub score, see above) AND Communication Studies 110 or its equivalent
- English 225 or its equivalent

Anchor I may be satisfied with 6 credit hours of “extra” Focus coursework. Anchor I and Anchor II may be satisfied with 12 credit hours of extra Focus coursework. A course is considered an “extra” Focus course if the student has completed another Focus course in the same category (i.e., A, B or C) and has satisfied the Focus elective.

- Example 1: Prior to enrolling at UMKC as degree-seeking, a student completed four Focus classes (three credits each), one each of Focus A, Focus B, and Focus C, as well as a Focus elective. This student has no credit hours of extra Focus coursework.
- Example 2: Prior to enrolling at UMKC as degree-seeking, a student completed four Focus courses (three credit each), all from the same Focus category, e.g., Focus A. The first course satisfies the Focus A requirement, the second course satisfies the Focus elective, and the third and fourth courses are considered extra Focus courses. This student has satisfied Anchor I.

Anchor requirements may be not be satisfied with extra Focus classes that are completed during or after the student’s first term at UMKC as a degree-seeking student.
GRADUATE ACADEMIC REGULATIONS AND INFORMATION

School of Graduate Studies
300F Administrative Center
5115 Oak Street
(816) 235-1301
Fax: (816) 235-1310
u (graduate@umkc.edu) mkcs@s目睹kc.edu (umkcsgs@umkc.edu)
http://sgs.umkc.edu/

Mailing Address
University of Missouri-Kansas City
School of Graduate Studies
5115 Oak Street, 300F
Kansas City, MO 64112-2499

Interim Dean:
Peggy Ward-Smith

• Mission and Administrative Organization of Graduate Education
• Admission Policies and Procedures
• Graduate Academic Regulations
  • Academic Loads
  • Enrollment
    • Changes in Enrollment
    • Enrollment/Readmission Policy
    • Continuous Graduate Enrollment Requirement
  • Enrollment Classifications
• Exceptions to Academic Regulations
• Foreign Language Proficiency
• Graduate Courses and Grading Policies
• Requirements for Retention
• Retroactive Withdrawals
• Requirements for Graduation
• Master's Degrees Academic Regulations (p. 1204)
  • Advisor/Supervisory Committee
  • Qualifying Examination
  • Master's Degree Program of Study
  • Dual Degree Programs at the Master's Level
  • Transfer Credit Policy for Master's Degrees
  • Final Master's Competency Examination
  • Thesis Definition
  • Thesis Preparation and Approval
  • Final Thesis Examination and Supervisory Committee Approval
  • Deposit of Approved Thesis with Libraries
• Doctoral Degree Programs (Ed.D., Ph.D., D.M.A.) (p. 1206)
  • Supervisory Committee
  • Qualifying Examination
  • Doctoral Programs of Study
  • Transfer Credit
  • Residency Requirements
  • Comprehensive Examination
  • Program Time Constraints
  • Required Enrollment
  • Dissertation and Completion of Degree
Mission and Administrative Organization of Graduate Education

UMKC currently offers more than 50 graduate degrees at the master's, educational specialist and doctoral levels, in addition to more than 20 graduate certificate programs. Graduate students represent about 33 percent of the total campus enrollment. The graduate student population is diverse in ethnicity, gender and racial background. As an urban university, our programs strive to accommodate adult working students. Nearly two-thirds of all graduate students are enrolled part time and the average age is 35.

The Graduate Council, representing a cross section of campus graduate faculty, sets policy, establishes minimum graduate education standards and monitors the quality of graduate education at UMKC. The graduate faculty in the various graduate degree programs may set standards more stringent than the minimums outlined in this catalog section, and in such cases, the program standards take precedence over the campuswide minimum regulations. The School of Graduate Studies is responsible for monitoring compliance to the campuswide minimum graduate academic regulations; providing leadership and coordination of all graduate programs; and serves as the academic home for students admitted to the Interdisciplinary Ph.D. program. Information on the Interdisciplinary Ph.D. program may be found in the School of Graduate Studies section of this catalog.

Graduate Admission Policies and Procedures

Graduate admission committees in each academic unit review applications and make recommendations for admission. Applicants must satisfy both the general campus requirements and the program-specific admission criteria for graduate study. The minimum general requirements follow.

Graduate Admission Requirements

The following are minimum requirements for admission to graduate study in all UMKC graduate programs:

1. A bachelor's or first-level professional degree from a regionally accredited institution.
2. A satisfactory academic record.

For program-specific requirements, applicants should consult the pertinent degree program listing in this catalog.

Many UMKC graduate degree programs require satisfactory scores from either the Graduate Record Examination (general and/or subject tests), the Miller Analogies Test or the Graduate Management Admissions Test. Other academic units may require other national examinations. Test applications and information can be obtained from the UMKC Counseling, Health and Testing Center, (816) 235-1635, or by contacting the Educational Testing Service http://www.ets.org.

Graduate Study Application Procedure

In general, applications for admission to graduate study should be obtained from and returned to the admissions office. Complete contact information for admissions can be found in the Application Forms (p. 2327) section of undergraduate admissions in the undergraduate catalog or from the UMKC Web site home page.

Because some academic units have special application packets, applicants requesting application materials should be sure to specify the program to which they plan to apply. Admission to a degree program is subject to the recommendations of the graduate faculty in the degree program area and the dean of the academic unit in which the program is offered. Graduate admission decisions by the academic dean or designated representative are final.

Applicants must submit an official transcript from the school where their bachelor's degrees were obtained. Unless the transcript of the degree-granting institution includes the complete record of undergraduate work taken at all other schools, an official transcript from each of the other institutions also must be supplied. In addition, applicants must submit an official transcript from each school where other coursework has been
General Graduate Academic Regulations

The minimum academic regulations and degree requirements for graduate study at UMKC, as outlined in the subsections that follow, have been determined by the UMKC graduate faculty through representation on the Graduate Council and the Committee of Graduate Officers, and apply to all graduate programs. Individual schools and departments may adopt additional and more stringent requirements for admission, retention and degrees that take priority over these minimum regulations. These additional requirements are detailed under the various fields of study in this catalog.

Academic Loads

Full-Time Academic Load Definition for Graduate Students

Graduate students enrolled in nine or more credits during a regular semester or five credits during a summer session are considered full-time students. All students registered for fewer than those specified totals are classified as part-time students, unless they hold a teaching or research appointment at UMKC.

Full-time enrollment for students holding graduate teaching assistant or graduate research assistant appointments (GTA/GRAs) is six hours in a regular semester or three hours in a summer session. GTAs/GRAs are expected to make normal progress toward their degrees and should enroll in a minimum of six hours per semester (three credits in the summer session). However, GTA/GRA appointees who have completed all required coursework for the degree and who are working full time on research need only enroll for the minimum of three credits.

These designations of full time are for academic purposes only and do not apply to assessment of fees or degree program residency requirements. Note that this policy in no way alters the residency requirements and criteria for doctoral degrees. Further, international students holding GTA/GRA appointments also must abide by requirements of the U.S. Immigration Service and should consult the international student advisor before reducing their course loads.

Special Cases: Requests for GTA/GRA Appointments Greater than Half Time and Requests for Exemption from Social Security Withholding for GTAs/GRAs

GTA/GRA appointments are normally restricted to no more than 20 hours per week (.5 full-time employee). Requests for GTA/GRA appointments greater than .5 FTE must be submitted to the School of Graduate Studies prior to the beginning of the appointment and must be accompanied by a statement from the student’s major advisor that the additional workload will neither place the student at risk academically nor impede the student’s academic progress.

Graduate students holding GTA/GRA appointments are automatically exempt from Social Security withholding tax as long as they are enrolled in at least six credit hours. If the student’s enrollment falls below six credit hours, the student’s academic unit may certify his or her eligibility for continued exemption for one of the following two reasons:

• The GRA is a doctoral student working in a research laboratory as a component of the educational requirement and is enrolled in the minimum number of research hours required for doctoral students who have passed comprehensive examinations.
• The GTA or GRA is a graduate student enrolled in fewer than six credit hours because it is the student’s exit semester.

Certification forms are available in the School of Graduate Studies office. The form requires signatures from the student’s major advisor and the principal graduate advisor of the student’s academic unit. After these individuals have signed the form, it must be sent to the School of Graduate Studies for recommendation. The School of Graduate Studies forwards the completed request to the Payroll Office for final action on the request.

Restricted Academic Loads

Limitation on the size of the academic load for which graduate students can register might be imposed by the dean or faculty advisor. Generally, students on probation are required to restrict the academic program to a minimum full-time load until they have returned to good standing.

Interpretation of Full-Time and Half-Time Status of Graduate Students for Purposes of Certification to Lending/Funding Agencies

To be eligible for certification of full-time status as a graduate student, a student must meet at least one of the following conditions:

• Enrollment in nine credit hours.
• Ph.D., D.M.A., D.N.P. and Ed.D. candidates who have passed their doctoral comprehensive examinations and are enrolled in at least one credit hour (not to exceed 10 semesters of certification under this category).

To be eligible for certification of half-time status as a graduate student, a student must be enrolled in at least five credit hours.

Special Cases and Limitations on Registrar’s Certification to Lending/Funding Agencies:
• Ph.D. D.M.A., D.N.P or Ed.D. students who have not taken and passed their doctoral comprehensive examinations and who do not meet one of the other enrollment qualifications for certification and Master’s/Educational-Specialist, and Graduate Certificate students not qualifying for certification under one of the categories listed above may petition the principal graduate advisor in their academic unit for special consideration. If, based on a review of the student’s petition, the principal graduate advisor believes the student for full-time or half-time status, the principal graduate advisor may submit a request to the Registrar’s Office.
• Work to satisfy an incomplete grade or grades from a previous term or terms does not count toward certification. Therefore, a class may be used only in status calculation for one term. Since the hours are used in status calculation during the original term of enrollment, that is the only term that the hours may be counted.
• Status may not be calculated nor certified for future terms.

Enrollment
Information given in this section reflects minimum campus standards for graduate students’ changes of enrollment. Because each academic unit has the prerogative to set more stringent rules, students should consult the principal graduate advisor or graduate officer in their major area of study for unit or discipline-specific rules. All changes in enrollment by graduate students must be initiated in the office of the principal graduate advisor (Arts and Sciences) or graduate officer of the respective unit and completed in the Registration Office.

Additions
Students who want to enroll in an additional course may do so during the first week of the term provided they have the approval of the faculty advisor. Course additions or late enrollments after the first week of the term generally are not allowed.

Withdrawals
Graduate students may withdraw from a course at any time prior to the first day of the final examination period, provided the permission of the faculty advisor has been obtained and notification to the instructor has been made. However, after the mid-term, students will be academically assessed. If failing at the time of withdrawal, students will be graded “WF” (withdrawn failing). [Note: Individual academic units may have earlier deadlines for withdrawal.]

Audit Policy for Graduate Courses
A student must be admitted to the university and obtain the consent of the instructor in order to audit a graduate course. Courses that ordinarily may not be audited are studio courses, performance courses, continuing education courses, laboratory courses in the sciences, internships, and practicums. Students do not receive credit when auditing a course, and audited courses do not count toward enrollment status requirements (full-time, half-time).

A student registered in a course for audit is expected to attend class and to pay full tuition and fees. Providing feedback to the auditor is at the discretion of the instructor. An auditor may be administratively withdrawn from a course at any time during the semester when, in the judgement of the instructor and upon approval by the dean, the attendance or participation record justifies such action.

Change from Audit to Credit
Graduate students may change status in a course from audit to credit during the first week of the term, provided they have the approval of the faculty advisor and have notified the course instructor.

Change from Credit to Audit
Graduate students may change status in a course from credit to audit any time prior to the final examination period, provided they have the consent of the course instructor and the approval of the faculty advisor. [Note: Individual academic units may have earlier deadlines and may have program-specific restrictions on retaking audited courses for credit.]

Withdrawal for Financial Delinquency
If students fail to fulfill financial obligations with the University after adequate notice, withdrawal from all courses during that term will result.

Continuous Graduate Enrollment Requirement
After completing all courses included in the planned programs or plans of study for degrees, all degree-seeking graduate students must remain continuously enrolled in each regular semester up to and including the semester in which their degrees are awarded. This requirement applies also to the summer term for students whose degrees are being awarded at the end of a summer term. This continuous enrollment must be for a minimum of one-hour credit in research and thesis, research and dissertation, or other work designated by the department or school. When no suitable credit registration is available, or when students have previously enrolled in at least the minimum number of 5599 (thesis) or 5699 (dissertation) or equivalent credits required on their programs or plans of study, students may fulfill the continuous enrollment requirement by registration in
continuous graduate enrollment (5899) for no academic credit. Interruption of continuous registration due to failure to comply with this requirement will result in the need for readmission under requirements then in effect. Academic units may require retroactive enrollment as a condition of readmission.

**Continuous Graduate Enrollment (5899)**

Courses designated as 5899, Continuous Graduate Enrollment, are charged at the rate established for one credit hour. Registration, by mail or in person, must be completed by the end of the first week of a regular semester or of a summer session. Students may obtain a reference number for 5899 from the Registration and Records office.

Graduate students in good standing who have not enrolled for only one semester may re-enroll without applying for readmission. Students who attend other schools in the interim must submit transcripts of such work from each institution attended. Graduate students are considered inactive after a lapse of two or more regular semesters of enrollment. Subsequently, inactive graduate students who want to continue must follow the same admission procedures as those required for new applicants. After a lapse of three or more terms, graduate students will re-enter under requirements in effect at the time of readmission.

**Post-Baccalaureate, Non-Graduate Student Classification**

Students who have earned a baccalaureate degree and who are seeking only additional undergraduate courses may be admitted under a post-baccalaureate (code 4-E) classification. Students in this classification are restricted to enrollment in courses numbered 499 and below and may not take any courses for graduate credit. Courses taken while classified as a code 4-E student may not be included for credit on a graduate degree program at a later date. Code 4-E students wanting to reclassify as graduate students for a future term must reapply and be regularly admitted to the graduate programs in which they want to seek advanced degrees.

**Degree-Seeking and Non-Degree-Seeking Graduate Student Classifications**

Students admitted to any of the graduate classifications (whether degree seeking or non-degree seeking) will be enrolled automatically for graduate credit in courses numbered 300 to 499 unless they indicate on their enrollment forms that they do not want graduate credit for the course or the instructor specifies the course may only be taken for undergraduate credit. Courses numbered 299 and below may not be taken for graduate credit, are not calculated in a student’s graduate grade-point average and cannot be included as credit courses on a graduate student’s program of study.

The following six admissions categories are used for degree-seeking graduate students at UMKC:

1. **Regular Master’s Degree Seeking** - (Full Admit) Degree-seeking graduate students admitted to a master’s degree program without reservation.
2. **Conditional Master’s Degree Seeking** - (Provisional Graduate). Degree-seeking graduate students admitted to a master’s-level degree program who have not yet fulfilled all admissions requirements specified by the academic unit responsible for the degree program.
3. **Regular Educational-Specialist Degree Seeking** - (Full Admit). Degree-seeking graduate students admitted to an Educational-Specialist degree program in the School of Education without reservation.
4. **Conditional Educational-Specialist Degree Seeking** - (Provisional Graduate). Degree-seeking graduate students admitted to an Educational-Specialist degree program who have not yet fulfilled all admissions requirements specified by the School of Education.
5. **Regular Doctoral Degree Seeking** - (Full Admit). Degree-seeking graduate students admitted to a doctoral degree program (Ph.D. or D.M.A.) without reservation.
6. **Conditional Doctoral Degree Seeking** - (Provisional Graduate). Degree-seeking graduate students admitted to a Ph.D. or D.M.A. program who have not yet fulfilled all admission requirements specified by the academic unit responsible for the degree program.

Full admission of provisional graduate students to a degree program and appropriate reclassification are subject to students’ removal of deficiencies and approval of satisfactory performance.

Admission to graduate study and to a particular degree program is no guarantee that students will be advanced to candidacy or granted a higher degree. All candidates are expected to perform at a consistently high level and to satisfy all the requirements for the degree. The final determination, as to whether or not students will be recommended for a graduate degree, is made by the graduate faculty in the fields concerned. The graduate faculty reserves the right to deal with exceptional cases on individual merit.

Degree-seeking graduate students who plan to change their field of study must reapply for admission and be regularly admitted to the desired graduate program in the new department or school.

The following three admission categories are used for non-degree-seeking graduate students:

1. **Non-Regular Graduate - Continuing Education, Non-Degree-Seeking Student** - (College Continuing Education). Students taking courses for graduate credit through the Division of Continuing Education. It should be noted that admission to this category (generally through self-certification) does not constitute regular admission to a graduate program at UMKC. However, on the recommendation of the advisor and approval by the graduate officer, a limited number of graduate credit courses (normally no more than six credit hours) may be applied to individual degree programs after students have been regularly admitted to do graduate study (see Application for Graduate Study, above).

2. **Visiting Graduate Student** - (Visiting). This includes students who have been properly certified as graduate students at an accredited institution other than UMKC, and have permission to enroll in specific courses (including 5000-level courses) at UMKC. Note: Students who have previously
been enrolled in a UMKC graduate program must have been in good academic standing at the end of their last UMKC graduate enrollment to take graduate
courses as a visiting graduate student.

3. Graduate Special Non-Degree Seeking - (Non-Degree Graduate Special). This classification is used for three categories of students: (1) Community
access, non-degree-seeking students wanting access to graduate level courses not available through continuing education; (2) Potential graduate
applicants, not meeting requirements for conditional admission and wanting to take graduate-level courses in order to qualify for admission;
and (3) Community access students applying to graduate certificate programs. The following restrictions apply to Non-Degree Graduate Special
Classification graduate students:

• Students apply to the academic unit, if declared. If undeclared, students are admitted as undeclared graduate students in the College of Arts
and Sciences.

• All graduate academic regulations apply.

• Students must have a baccalaureate degree prior to admission.

• Students are subject to the campus graduate academic probation and ineligibility policies.

• Students with a Non-Degree Graduate Special classification are not eligible for financial aid unless they are enrolling at least half-time in a
graduate certificate program.

• International students may not be issued I-20 forms for admission under a Non-Degree Graduate Special classification.

• International students considered under the Non-Degree Graduate Special classification must meet the University standards for evidence of
English proficiency.

• Students admitted under this classification must reapply to the academic unit and be admitted to a graduate degree program in order to be
changed to degree-seeking status.

• At the discretion of a department or area, the graduate-level courses completed with a grade of B (3.0) or better while classified as a Non-
Degree Graduate Special student may be applied toward a graduate degree in that department or area. Of the courses listed on a degree, no
more than 12 semester credit hours may have been completed while enrolled as a Non-Degree Graduate Special student.

All non-degree-seeking graduate students (College Continuing Education, Visiting, and Non-Degree Graduate Special) wishing to enter a degree
program must reapply for and be regularly admitted to the department or school from which they want to receive an advanced degree.

Exceptions to Academic Regulations

Campuswide Exceptions

Petitions for an exception to a campuswide graduate academic regulation must originate with the student. It must be processed through the graduate
officer and dean or program director in charge of the student’s graduate degree program and forwarded to the dean of the School of Graduate Studies.Only the dean, or the designated representative, are authorized to grant an exception to the graduate academic regulations applying to all graduate
students. Petitions must be in writing and include (1) the reason for requesting the exception and a detailed justification from the student; (2)
recommendation for action by the appropriate graduate officer; (3) recommendation for action by the department or division chair (if applicable); and
(4) recommendation for action by the appropriate dean or program director. The graduate dean or designated representative will review the petition
and related documentation and render a decision which will be communicated in writing to the academic dean or director, the graduate officer, the
student and the registrar.

Program-Specific Exceptions

Petitions for exception to a program-specific academic regulation are handled within the academic unit’s degree program. A graduate student who
has petitioned for an exception to a program-specific academic regulation and whose petition has been denied may appeal the decision to the dean
of the School of Graduate Studies if all other remedies open to the appellant have been exhausted at the department and college, school or program
level. Appeals to the dean of the School of Graduate Studies must be made in writing within 14 consecutive days from the date the student received
the written notice of the petition decision. The dean of the School of Graduate Studies will investigate the case and take appropriate action in a timely
manner. The decision of the graduate dean, as the chancellor’s designated representative, is final and will be communicated in writing to the student,
the graduate officer, the academic dean or director and the registrar.

Graduate Courses and Grading Policies

Course Designations

In general, courses numbered 5000 and above are open only to regularly admitted graduate and Ph.D. students.

Courses numbered 300 to 499 are upper division junior- and senior-level courses. Graduate students who enroll in such courses have the option of
designating them, at the time of enrollment, as being "not for graduate credit." If the student chooses this option, the grade will not be included in
the student’s graduate grade-point average and the course may not be included on the graduate or Ph.D. program/plan of study and will not count
toward a graduate degree. In order for a 300- or 400-level course to be accepted for graduate credit, students will be expected to do supplementary
work (additional reading, projects, papers and contact hours with the instructor) and to demonstrate graduate-level competency and achievement in
the subject. Also, students must take the course for graduate credit and complete it with a grade of B- (2.7) or better. The total number of acceptable
300- to 400-level courses to be applied to requirements for a graduate degree may not exceed 40 percent of the total number of courses applied to
graduate or non-interdisciplinary doctoral-degree requirements, or one-third of the total number of courses on the approved Interdisciplinary Ph.D. plan of study.

Courses at the 100- and 200-level are not available for graduate credit and will not be applied toward the number of hours required for a graduate degree.

Courses numbered 5580 to 5589 generally are reserved for seminars, workshops and special topics. Consult individual degree programs for possible restrictions on such offerings. The course numbers 5590 to 5598 are usually reserved for non-thesis research, directed studies and readings. Courses numbered 5599 are restricted to research leading to a thesis. Considering this numbering system, no more than 40 percent of courses numbered 5590 to 5599, or other courses which fall in the categories listed above for that course number range, may be applied to a graduate degree program of study, with the exception of the Interdisciplinary Ph.D. study.

Courses numbered 5695 to 5699 are restricted to research leading to a dissertation. Continuous Graduate Enrollment is numbered 5899.

Note: The numbering of graduate courses in the School of Dentistry differs from the system described above.

Course Restrictions
Policy on Admission of Undergraduates to Graduate-Level Courses
In addition to regularly admitted graduate students, seniors who meet the requirements below, and who have obtained the necessary approvals and received permission from the School of Graduate Studies may enroll in a limited number of courses numbered in the 5000 series and above, or may enroll in appropriate 300- and 400-level courses for graduate credit.

Minimum requirements
• Seniors within 12 credits of graduation who have a 3.0 GPA or better in their college work; or
• Seniors within 30 credits of graduation who have a 3.5 GPA in their college work.

To request permission to take a graduate-level course, the senior must:
1. Obtain a request to take graduate-level course form and an advising transcript from the Registrar’s Office. (Forms also are available on-line at http://sgs.umkc.edu/forms/.)
2. Fill out the request to take graduate-level course form, attach a copy of the advising transcript to the form and seek written approval on the form from the course instructor; the dean or director of the academic unit in which the requested course is offered; and the student’s undergraduate advisor.
3. Once the above steps have been completed, submit the form to the School of Graduate Studies for final approval. This last step should occur no later than four weeks before regular registration.

This policy does not generally apply to 5000-level courses in the Bloch School of Business and Public Administration open exclusively to graduate students. However, Bloch School seniors may begin work on the M.B.A., M.P.A. or M.S. in accounting degree if pre-approved by the Bloch School based on their formal application and admission to the graduate degree program.

This procedure is intended to allow a degree of flexibility in planning the academic programs of degree-seeking seniors who clearly have shown academic merit and plan to pursue advanced study after graduation. This option is not available for post-baccalaureate students (code 4-E).

In all cases, eligible students may enroll in no more than six credits of graduate-level courses or courses for graduate credit through this procedure. In addition, first-semester seniors who enroll in graduate-level courses are limited to a total enrollment of no more than 15 hours for the semester. Graduate-level courses (5000 and above) are to be selected from those courses generally offered to first-semester or first-year graduate students. Courses such as special topics, individual studies and directed research designed for advanced graduate students are not eligible under these provisions.

Students may petition that the courses can be taken for graduate credit or undergraduate credit. Credit may be applied to requirements for a graduate or a bachelor’s degree, but not both unless the course is part of an approved Bachelor’s-Master’s Dual Degree program or Bachelor’s-Graduate Certificate program to which the student has already been admitted.

Requests by students who meet all the requirements stated above will be approved by the dean of the School of Graduate Studies or designated representative. In exceptional cases, students who do not meet the requirements stated above may present a petition to the dean of the School of Graduate Studies. Such petitions must be presented to the school no later than four weeks before the beginning of the term for which enrollment is sought.

Students who do not meet the above criteria but who register for a graduate-level course will be withdrawn administratively from the course. Fees paid for the course will be refunded.

Graduate-Credit, Continuing Education Courses
Graduate-credit courses are offered on an irregular basis at both off-campus and on-campus locations through the Division of Continuing Education, in conjunction with various instructional divisions.
Students may enroll in such courses and earn graduate credit without being regularly admitted to a graduate program. However, application of such credits toward an advanced degree can be determined only after students have been regularly admitted to graduate study. Such application depends upon the acceptance of students and the course by the respective department or division offering the degree. Students are responsible for determining whether these credits will satisfy the requirements of their particular educational goals and should make such determination before registering for the course.

**Grading System**

The following is the +/- grading scale and grade-point system used at UMKC. This +/- grading scale and grade point system is used by all faculty, in all undergraduate, graduate, and professional programs.

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Description</th>
<th>Points per Semester Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>The highest grade</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td></td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td></td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>Work of distinction</td>
<td>3.0</td>
</tr>
<tr>
<td>B-</td>
<td></td>
<td>2.7</td>
</tr>
<tr>
<td>C+</td>
<td>Average work</td>
<td>2.3</td>
</tr>
<tr>
<td>C-</td>
<td></td>
<td>1.7</td>
</tr>
<tr>
<td>D+</td>
<td></td>
<td>1.3</td>
</tr>
<tr>
<td>D</td>
<td>Passing, but unsatisfactory</td>
<td>1.0</td>
</tr>
<tr>
<td>D-</td>
<td></td>
<td>0.7</td>
</tr>
<tr>
<td>F</td>
<td>Failure without credit</td>
<td>0.0</td>
</tr>
<tr>
<td>NR</td>
<td>Not Reported</td>
<td>0.0</td>
</tr>
<tr>
<td>WF</td>
<td>Withdraw Failing</td>
<td>-</td>
</tr>
<tr>
<td>W</td>
<td>Withdraw; no-academic assessment</td>
<td>-</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
<td>-</td>
</tr>
<tr>
<td>AT</td>
<td>Audit</td>
<td>-</td>
</tr>
<tr>
<td>CR</td>
<td>Credit only</td>
<td>-</td>
</tr>
<tr>
<td>NC</td>
<td>No Credit</td>
<td>-</td>
</tr>
<tr>
<td>P</td>
<td>Passing</td>
<td>-</td>
</tr>
<tr>
<td>S</td>
<td>Satisfactory</td>
<td>-</td>
</tr>
</tbody>
</table>

In terms prior to and including 1985, any of the above grades might be preceded by an R indicating a repeated course. These grades are not included in either total hours or the grade-point average. (Examples: RC, RD, RF.) Since 1985, all grades, including those in repeated courses, are included in the GPA calculation. For the 1993 Fall Semester, UMKC began using the plus/minus grading system for grades A, B, C and D. The grade of A+ is valid only for students in the School of Law.

**Incomplete Grades**

An instructor may give a grade of incomplete (I) to students who have been unable to complete the work of the course because of illness or other valid reasons beyond their control. Students who receive an incomplete must complete the required work within one calendar year to avoid an F (failure without credit). The instructor may specify a shorter completion period. A grade of incomplete is only appropriate when enough work in the course has been completed that the student can finish the remaining work without re-enrolling in the course in question, or by attending additional classes. In other instances, students should withdraw. Students cannot re-enroll in a course for which an incomplete remains on the record. Furthermore, graduate students cannot graduate with an incomplete on their record.

This policy is exclusive of those courses which are considered directed individual studies; internships; special topics; practicums; research and thesis; and research and dissertation courses. Because completion of such courses will quite often span several terms, incomplete grades assigned in such courses will not automatically lapse to an "F" grade after one calendar year, but will adhere to the completion period specified by the instructor.

**Policy on Repeated Graduate-Credit Courses**

Whenever students repeat a graduate-credit course, they must submit a course repeat form to the Registration and Records Office no later than the fourth week of the term. Students seeking graduate degrees are limited to repeating no more than 20 percent of the credits applicable toward a graduate degree. If approved by the school or department or Interdisciplinary Ph.D. supervisory committee, students may repeat a course once to improve the grade-point average or satisfy the program requirements. The second grade received will be used to calculate the grade-point average that will be used in satisfying degree requirements.
Requirements for Retention

Graduate Probation Policy

Graduate students, regardless of classification, must maintain a 3.0 (B) grade-point average in all coursework taken for graduate credit at UMKC and must meet any additional academic requirements imposed by the school, department or Interdisciplinary Ph.D. discipline. Students are responsible for keeping apprised of their academic status by referring to term grades and their permanent academic record on file in the UMKC Registration and Records Office.

Whenever the cumulative GPA for UMKC courses taken for graduate credit by a graduate student of any classification falls below 3.0, the student’s status for the next term becomes: “On Probation - See principal graduate advisor.” (Interdisciplinary Ph.D. students will be directed to consult their interim advisor or research advisor.) The principal graduate advisor, interim advisor or research advisor will review the student’s progress and provide counsel, and the following conditions apply:

• While on probation, a graduate student must achieve a 3.0 term GPA in order to enroll for the following term.
• A graduate student on probation who is not restored to good academic standing by the end of two successive regular semesters following the term in which the cumulative GPA fell below 3.0 will be declared ineligible to re-enroll.
• A graduate student on probation will not be restored to good standing until a cumulative graduate-credit GPA of at least 3.0 is achieved.

Ineligibility for Further Graduate Study

Ineligibility Following Academic Probation

In the case of ineligibility following academic probation, the graduate student may present a petition for re-enrollment to the principal graduate advisor of the student’s academic program. Petitions will be reviewed by the graduate faculty member responsible for the student’s degree program. That faculty member will make a written recommendation to the appropriate administrative levels within that academic unit approving or denying of the petition. The approval or denial action may include:

• Approval for further graduate study in the student’s current field of study and in the same classification but on a restricted probation basis (as defined in written contract).
• Approval for further graduate study in the student’s current field of study in a different student classification and on a restricted basis.
• Denial for further graduate study in the student’s current field but approval for undergraduate study only.
• Denial for further study, either graduate or undergraduate, in the student’s current field of study.

Ineligibility Due to Unsatisfactory Progress or Performance

When a department or school or Interdisciplinary Ph.D. supervisory committee, irrespective of a student’s grade-point average, considers a graduate student’s performance to be unsatisfactory, that department, school or committee may recommend to the dean or director of the academic unit in which the student’s degree is housed that the student be reclassified or declared ineligible for further study. The dean or director reviews the recommendation and conveys a decision to the respective faculty group and the student.

Students in programs other than the Interdisciplinary Ph.D. program who have been declared ineligible due to unsatisfactory progress or performance may appeal such decisions to the dean of the School of Graduate Studies, as designee of the chancellor. Students in the Interdisciplinary Ph.D. program may appeal such decisions to the provost, as designee of the chancellor. Such appeals must be made in writing within 14 consecutive days after receipt of the notification to the student of the decision.

The decision of the graduate dean or provost, as the chancellor’s designated representative in such cases, is final and will be communicated in writing to the following:

1. The student
2. The graduate faculty review group(s)
3. The academic dean or director
4. The registrar

Retroactive Withdrawals

A student may petition for Retroactive Withdrawal from a course(s) or from the university (all courses taken during that semester), if circumstances of a serious and compelling nature prevented the completion of course work and extenuating circumstances prevented submission of a regular withdrawal petition by the deadline on the Academic Calendar. In filing a Petition for Retroactive Withdrawal, withdrawal from all courses taken during the term in question is normally expected since ‘extenuating circumstances’ are not course-specific.

Petitions must be submitted to the School or College (academic unit) where the student’s current major is housed. Each academic unit will assemble a retroactive withdrawal committee that will make decisions on all retroactive withdrawal petitions. Approved retroactive withdrawal petitions which require a change of grade will follow standard change of grade procedures. A copy of the approved petition and supporting documentation should be attached to the grade change form when it is submitted to the Registration and Records office.
Petitions that are approved by the home academic unit for courses that reside outside of the home academic unit will be forwarded to the host academic unit retroactive withdrawal committee along with all supporting documentation. The host retroactive withdrawal committee will forward their decision back to the home academic unit.

If the petition for retroactive withdrawal is denied by either home or host retroactive withdrawal committee, the student has the right to appeal the decision to their home academic unit Dean. The decision of the home Dean is final.

If the home academic unit Dean approves a petition for coursework that is housed in a host academic unit, the paperwork will be forward to the host academic unit Dean for a decision. The host dean will forward their decision back to the home academic unit. The decision of the host Dean is final.

Students who submit a retroactive withdrawal are not typically candidates for fee refunds.

For courses taken while enrolled in the Interdisciplinary Ph.D. program in the School of Graduate Studies and the Schools of Dentistry, Law, Medicine, and Pharmacy, students should refer to the retroactive withdrawals policies and procedures of these schools as they may have more stringent requirements.

**Students are not a candidate for retroactive withdrawal if any of the following conditions are true:**

- You are applying because you are not satisfied with the grade you earned.
- You are applying because you neglected to formally withdraw from the course(s) in question.
- You were not aware of the withdrawal deadlines.
- You changed your major and are now working towards a major or degree which does not require this course.
- You assumed non-academic activities which restricted your time for academic pursuit.
- You were ill or you suffered stress as the result of an accident, death, family crisis, or other crisis early enough in the semester to have withdrawn during the semester.
- You have already received a UMKC degree for which the course(s) in question were applied towards degree requirements and/or your UM GPA.

If any of the above are found to be true of your case, your request for retroactive withdrawal will be denied.

**Students may be candidates for retroactive withdrawal if any of the following conditions are true:**

- There was a documented administrative error that affected your enrollment in one or more courses.
- You have documentation of a serious illness that affected your ability to complete all of your coursework after the withdrawal date.
- You encountered documented extreme and unusual circumstances which a) were beyond your control, b) occurred after the withdrawal date, and c) could not have been addressed during the term in which the course(s) was taken.

**Process for submitting a Retroactive Withdrawal Petition:**

1. To withdraw retroactively from the university or specific courses, the student must present official supporting documents which demonstrate serious and compelling reasons (usually due to serious accident or illness) justifying the withdrawal and extenuating circumstances justifying its ‘retro’ nature.
2. The student collects supporting documentation submits the entire package (Retroactive Withdrawal form and official supporting documentation) to the School or College where their major is housed.
3. All decisions will be made by each School or College Retroactive Withdrawal or Petition for Exception Committee.
4. Individual instructor’s feedback should be considered with all petitions.
5. Once a decision is made the home School or College will send all documentation to the Registration & Records Office.

The retroactive withdrawal policy is effective as of Summer 2010 and applies to all students, regardless of the catalog year the student entered the University.

**Requirements for Graduation**

**Program of Study**

Graduate education is intended to answer the personal needs of students and the special needs of society not satisfied through undergraduate training. Graduate degrees indicate that the holders have sufficiently mastered a program in a particular field to pursue creative projects in that specialty. The degrees are awarded for completion of a coherent program – formalized as the program or plan of study – designed to assure the mastery of specified knowledge and skills. Forms for specifying individual programs or plans of study are available from the principal graduate advisor (Arts and Sciences) or graduate officer of the academic unit.
Students may elect to fulfill either the degree requirements in effect at the time of their original admission (provided there has not been a lapse in attendance at UMKC of more than two consecutive terms) or the degree requirements in effect at the time of advisement into a planned graduate program of study.

No course at the 300- or 400-level taken on a credit/no credit basis; no 300- or 400-level course with a grade below B- (2.7); and no 5000-level or higher course with a grade below C (2.0), will count toward any advanced degree program. Additionally, 80 percent of the credits for the degree must be passed with a grade of B (3.0) or better. Students admitted to the combined J.D./MBA program must receive grades of B or better in 80 percent of Bloch School courses. Because of different grading standards, the transferred law hours are not included in the 80 percent calculation. Degree programs may have requirements which are more stringent. If so, the program requirement takes precedence over the campus minimums. Final GPA at the time the degree is conferred (graduate certificates, masters and PhD degrees) must be 3.0 or higher for courses completed on the plan of study.

Exceptions to this policy require a petition signed by the student’s advisor and the Dean of the School of Graduate Studies.

**Thesis and Dissertation Preparation and Approval Process**

**Formatting Regulations**

Some master's degree programs have a thesis requirement and some have a thesis option. All Ph.D. degree programs at UMKC require a dissertation. The School of Graduate Studies, guided by the Graduate Officers Committee, establishes the format regulations for theses and dissertations (T/Ds) at UMKC. Degree candidates are responsible for familiarizing themselves with and adhering to the standards of the latest edition of the "Manual for Writers of Term Papers, Theses and Dissertations" edited by Kate Turabian. They also must become familiar with the special format regulations for title page; abstract format and length; approval page; order of manuscript sections; paper; page numbering; heading levels; margins; and type style and size; which are outlined in the "University of Missouri-Kansas City Guide to Formatting Theses and Dissertations" which is available online at http://sgs.umkc.edu/current-students/thesis-dissertation-guidelines. Bibliographic references must follow Turabian guidelines unless the student's academic program has an alternate bibliographic reference format approved by, and on file with, the School of Graduate Studies. Candidates should check with the principal graduate advisor in their respective academic units to determine the approved bibliographic reference format for their degree programs. Any variances from the standards outlined in the "University of Missouri-Kansas City Guide to Formatting Theses and Dissertations", Turabian and discipline-approved bibliographic reference styles must be requested in writing and approved in advance by the dean of the School of Graduate Studies. A copy of the dean's official letter authorizing exceptions to formatting standards must be included as an appendix to the T/D.

The School of Graduate Studies provides formatting workshops at the beginning of each fall and spring semester. In addition, degree candidates may schedule individual conferences with the school's T/D Formatting Specialist during the first four weeks of the fall or spring semester and the first two weeks of the summer term to make sure they have interpreted the formatting guidelines correctly and to seek guidance on specialized formatting problems. Candidates should call the School of Graduate Studies office, (816) 235-1161, for time and place of workshops or to schedule a formatting conference.

**Supervisory Committee Review and Approval of T/Ds**

Approval of the T/D begins with the degree candidate’s supervisory committee. Candidates work closely with their research advisors while writing the various sections of the manuscript. The candidate's supervisory committee shall ensure that the scholarly content and style of the T/D is in keeping with recognized standards of the chosen discipline(s). Graduate degree candidates should periodically provide all members of their supervisory committee with preliminary drafts of the T/D for review and comment. Final drafts of the T/D, which incorporate all substantive revisions supervisory committee members have previously requested, should be submitted to all members of the candidate's supervisory committee at least eight weeks before the expected date of graduation. For both master’s and doctoral-level degree candidates, when the supervisory committee members feel the work is complete and ready for final defense by the candidate, the committee members notify the supervisory committee chair by completing a Master’s Pre-Oral Defense form or Doctoral Dissertation Pre-Oral Defense form and forwarding it to the supervisory committee chair. The supervisory committee chair and student may then schedule a final defense of the work.

**School of Graduate Studies Review and Certification of Acceptance of T/Ds**

The deadline for submitting the T/D to the School of Graduate Studies for certification of acceptance is printed in the calendar section of the schedule of classes for each term. The actual date varies, but it is approximately six weeks before the end of the fall or spring semesters and four weeks before the end of the summer session. Prior to the published deadline for the term in which the degree candidates expect to graduate, they must present the following to the School of Graduate Studies office:

- One unbound copy of the T/D in final form, but not printed on archival quality, acid-free paper.
- The signed Preliminary Approval of T/D by Supervisory Committee form.

T/Ds normally will not be accepted for review for graduation during the current term unless they are received in the School of Graduate Studies by the published deadline. In the school, the T/D is reviewed by a Thesis/Dissertation Formatting Specialist for conformity to the campus formatting standards and by the graduate dean for quality of content. The school’s review process generally takes from two to four weeks. The candidate will be notified to pick up the T/D and make all necessary formatting corrections before resubmitting the T/D to the School of Graduate Studies. Candidates who are out of the city must make arrangements to have the copy picked up locally or returned, collect, by messenger service.

After the T/D defense, the student should submit a corrected final draft on plain paper to the School of Graduate Studies. This draft should be accompanied by the Master’s Thesis Final Evaluation forms or Doctoral Dissertation Final Evaluation forms completed by each committee member. The graduate dean will review the thesis or dissertation for certification of acceptance. If the T/D has significant formatting problems, it will be
returned to the candidate without further review or certification. The candidate will be required to make all necessary formatting corrections and resubmit the T/D to the School of Graduate Studies. If this happens, the candidate’s graduation may be delayed. Enrollment in an additional term of continuous-graduate enrollment may be required.

Preliminary approval forms, Master’s Thesis Preliminary and Final evaluation forms and Doctoral Dissertation Preliminary and Final evaluation forms are available from the School of Graduate Studies office in the Administrative Center (5115 Oak St.) and online at sgs.umkc.edu/guidelin/index.asp (http://sgs.umkc.edu/current-students/thesis-dissertation-guidelines).

When both components of the School of Graduate Studies review of the T/D are complete, the candidate is notified. If further format corrections are required, the School of Graduate Studies will hold the certificate of acceptance until appropriate revisions are made and rechecked by the formatting specialist. The candidate then picks up the certified copy of the T/D and the certificate of acceptance from the School of Graduate Studies office and may prepare their final copy to upload to ProQuest. (See Final Thesis Examination and Supervisory Committee Approval under Master’s Degrees Academic Regulations and Final Dissertation Examination under Doctoral Degree Programs (Ed.D., Ph.D., D.M.A.) later in this section.) Candidates who are out of the city must make arrangements to have the certified copy picked up locally or returned, collect, by messenger service.

Deposit of T/Ds with the Library
The candidate makes any final revisions requested by committee members at the defense or the School of Graduate Studies and then uploads an electronic copy of the document in portable document format (PDF) to ProQuest. The PDF copy is then transmitted to the University of Missouri system institutional repository, MOSpace, where the document is made available via the world wide web. As an added optional service, ProQuest will handle the copyrighting process for theses and dissertations, if desired. Students will pay an archival copy fee when they upload the document, plus an additional fee if they choose to have ProQuest handle the copyright registration. Submission to ProQuest must be accomplished no later than the Friday immediately preceding the first day of classes for the next term.

Thesis/Dissertation Embargo Policy
Purpose:
As a model urban research university, UMKC takes great pride in the scholarly and creative contributions of its students and faculty. These works should be shared with the academic community as soon as possible. The School of Graduate Studies requires that all theses and dissertations be made publicly available upon degree conferral. In limited circumstances, there may be a reason to delay the public access to a dissertation for a short period of time. The School of Graduate Studies will consider requests for delay in public access to a dissertation if:

1. The student (or his or her collaborators) is applying for a patent on research contained in the dissertation, and does not wish to make the contents public until the patent application has been filed.
2. Patentable rights in the work or other issues in which disclosure may be detrimental to the rights or interests of the author.
3. The need to prevent disclosure of any sponsor information about persons, institutions, technologies, and proprietary information that has restricted time frames.
4. The interest of an academic or commercial press in acquiring the rights to publish your dissertation or thesis as a book or composition.
5. Content that is likely to be or has already been submitted to a peer-reviewed journal.

Although there may be additional circumstances in which a student may request an embargo, the School of Graduate Studies will generally not approve requests to restrict access to thesis/dissertations without compelling reasons.

Embargo Policy: A graduate student or their advisor may apply to the School of Graduate Studies to delay the distribution of their master’s thesis or doctoral dissertation for a limited amount of time (1 year). Such requests must be reviewed and approved by the chair (and co-chair, if any) of the dissertation committee, and approved by the Dean of the School Graduate Studies. Additional time may be requested under unusual circumstances, although approval is not guaranteed. It is the student’s responsibility to request the embargo and any possible extension, if applicable. Although the full text of theses or dissertations in embargoed, the title and abstract will be made available after degree conferral.

It may be possible to request an extension of the original embargo in one-year increments. Requests for an extension should be directed to the School of Graduate Studies. Documentation of a pending publishing contract or sponsor imposed restrictions is required for an extension. It is the graduate’s responsibility to request an extension.

When dissertations are submitted in digital form, public access to the digital form of the dissertation poses another question for some new graduates. Selected journals and publishers have adopted policies that prohibit the publication of material that has been widely distributed on the web. If the dissertation is submitted electronically, and made easily available to the public through search tools, this small group of publishers may consider the dissertation “pre-published,” and will not consider it for publication. To address this issue, we will give students the option to limit digital access to their dissertations to users at the University of Missouri-system for a limited period of time. Not to exceed 3 years from the date of degree conferral. With this restriction on public access, the dissertation will not be considered “pre-published.”

Application for Graduation
Completing degree requirements does not automatically result in conferral of the degree. Students must request that the University review their academic record and certify that degree requirements have been met. To make this request, students must file applications for graduation with the registrar no later than the end of the fourth week of the semester in which the degrees will be completed. Students graduating at the end of the summer session must file an application for graduation no later than the end of the second week of the summer session. An approved program/plan
of study must be on file with the registrar at the time the student makes application to graduate. Filing applications for graduation initiates degree checks in the Registrar's Office. The students and their advisors receive a degree checklist which indicates any deficiencies the students must clear. Students should contact their advisors if there are questions about the checklist. The application for graduation also places candidates' names in the commencement program. In addition, when completion of degree requirements have been certified by the registrar, the Registrar's Office authorizes the diploma order.

Specific term deadlines for all graduate requirements are announced in the schedule of classes for each term. Students are responsible for being aware of and meeting these deadlines.

The registrar will certify degree completion if students' academic records (transcripts) show that they have completed all of the requirements listed on the approved program/plan of study.

**Commencement**

Advanced degree candidates are urged to attend commencement. Students should arrange for rental or purchase of a cap and gown at the University Bookstore at least six weeks before the graduation date.

**Time Limit on Degree Credit for Master's and Educational-Specialist Degrees**

Credit over seven years old at the time of graduation, which is included on the master’s or educational-specialist program of study and has not been applied to a previous degree, may not be counted toward the fulfillment of a graduate degree program unless validated to the satisfaction of the department or school and the School of Graduate Studies. Petitions and affidavits for this purpose may be obtained from the School of Graduate Studies. A maximum of 30 percent of the student's program of study may be validated under this procedure.

In connection with an authorized leave of absence, an exception to the time limitation may be approved in advance.

**Master's Degrees Academic Regulations**

The following general campus regulations pertain specifically to the master's degree. Master's students also should refer to Graduate Academic Regulations (p. 1189) earlier in this catalog section for regulations common to all graduate degrees at UMKC and to specific degree program requirements in other sections of this catalog.

**Advisor/Supervisory Committee**

Upon admission to a graduate program, a student seeking a master's degree will contact the appropriate department chairman of the College of Arts and Sciences or the graduate officer of the professional school or program. This person will assign the student an advisor who is a member of the graduate faculty. When research and a thesis are degree requirements or the student has selected a thesis option, the Arts and Sciences department chair or the school's graduate officer will appoint two additional faculty members to serve on the graduate student's supervisory committee. The chair and a majority of the members of a master's student supervisory committee must be full members of the graduate faculty.

**Qualifying Examination**

If required, a qualifying examination must be passed before a master's program is filed with the graduate officer. The department or school will notify students of the time and date of the examination. The results of the qualifying examination will be reported to the registrar. With the approval of the advisor and the supervisory committee, if such exists, students may take the qualifying examination a second time.

**Master's Degree Program of Study**

In consultation with the advisor or the supervisory committee, the master's student plans a program of study in accordance with the minimum requirements listed here and the specific degree requirements listed elsewhere in this catalog. Forms for specifying individual programs of study are available from the principal graduate advisor or graduate officer of each academic unit. Students should file this program of study with the departmental principal graduate advisor (College of Arts and Sciences) or the graduate officer in their academic units before 60 percent of the coursework applicable to the degree is completed. In the College of Arts and Sciences, the principal graduate advisor secures required departmental approval and forwards the program of study to the graduate officer of the college.

After the proposed program has been approved, as required by the academic unit, the unit's graduate officer will distribute copies of the program of study to the registrar, the student's advisor or chair of the student's supervisory committee, the principal graduate advisor (Arts and Sciences) and the student.

The approved master's degree program of study must include a minimum of 30 graduate credits. No more than 40 percent of the credits on the program may be 300- and 400-level courses. At least 60 percent of the credits must be at the 5000 level or higher. Further, up to six credits may be allowed for Research and Thesis (5599). Other demonstrations of skills considered by the department or school as comparable to the thesis may be accepted. No more than 40 percent of the courses applied toward a master's degree program of study may be in the non-thesis research, directed studies, readings or research and thesis categories. Such courses normally fall in the 5500 to 5599 range, but the numerical designations may vary among academic units.
Program Changes
Subsequent changes in the program of study must be approved by the student’s advisor, the supervisory committee and the appropriate dean or department chair. The graduate officer will inform the registrar of such changes. If cumulative changes in courses or degree requirements exceed four, a new program of study should be filed.

Dual Degree Programs at the Master’s Level
Dual-degree programs allow students to simultaneously pursue degrees at the master’s level in two fields of study. Students must complete at least 80 percent (rounded up) of the credit hours required for each degree separately. Students must satisfy admission, course and examination requirements of both degree programs.

Transfer Credit Policy for Master’s Degrees
A maximum of 20 percent of the graduate credit hours appearing on the program of study (rounded up) may be transferred from a recognized graduate school for a master’s degree at UMKC. Such transfer credits must meet with approval of the student’s supervisory committee and appropriate principal graduate advisor (College of Arts and Sciences) or graduate officer and be in accordance with all of the following criteria:

1. The coursework must be:
   • Offered by an accredited school.
   • Applied toward a graduate degree at the host institution and taken for graduate credit.
   • Approved by the appropriate graduate faculty.

2. A grade of B (3.0) or higher for 300- and 400-level courses and C (2.0) or higher for 5000-level courses or other courses restricted to graduate students only must have been earned. (CR or P will be accepted on receipt of a statement from the institution where credit was received of letter grade equivalent meeting grade standards as stated above.)

Transfer credit may be allowed for correspondence courses, provided the credits meet the criteria outlined in 1 and 2 above. Transfer credit will not be accepted for research and thesis/dissertation hours (defined by UMKC), travel experience or work/life experience. Foreign university transfer credit must meet the above criteria as attested by the registrar.

A majority of the coursework applicable to any graduate degree at UMKC must be completed at UMKC. UM traveling scholar credits are not considered transfer credits. However, the sum total of credits from other UM campuses, and other transfer credits (not more than 20 percent of the total credits) cannot exceed 14 credits on a 30-credit master’s degree program, or a proportional equivalent (approximately 46 percent) on programs exceeding 30 credits; and must be within the limits stated above.

A student who has been awarded a master’s degree at UMKC or another regionally accredited graduate school may petition the faculty to apply up to six hours of graduate credit earned on the first degree toward meeting the requirements of a second master’s degree. Credit, so approved, not from UMKC will be subject to all preceding transfer credit criteria.

See the sections on specific degree programs for requirements pertaining to transfer credit for educational-specialist and doctoral degrees.

After approval of the program of study, graduate credit may be earned at another institution only with prior approval of the dean of the School of Graduate Studies. Forms to request such approval are available from the Registration and Records Office. A current catalog of the institution where the course is to be taken or an official catalog description of each course must be attached to the request form. The official transcript for such work must be forwarded to the Registration Office upon completion of the course.

Final Master’s Competency Examination
The final master’s competency examination, if required, will be written, oral or both at the discretion of the school or department, and will be passed no later than three weeks prior to the anticipated date of graduation. Students will submit a request for the examination to the advisor no less than two weeks before the examination is to be taken. The candidate’s supervisory committee chair will report the results of the final competency examination in writing to the candidate and to the principal graduate advisor (Arts and Sciences) or graduate officer, who will then inform the registrar.

Thesis Definition
A thesis is a process that results in an original composition that involves quality work and creativity. This may include definition of goals or research questions, a review of the existing literature or background information, collection of data or information to present as results, and a discussion of results and findings, and citations. The research and final document should be of appropriate scholarly quality, as judged by the thesis committee.

Thesis Preparation and Approval
For regulations pertaining to thesis preparation and approval, the reader is directed to Thesis and Dissertation Preparation and Approval Process, included under Graduate Academic Regulations (p. 1189) in this section.
Final Thesis Examination and Supervisory Committee Approval

The format and procedures of the final examination in defense of the thesis are determined by the supervisory committee and its chair. This examination may not be administered when UMKC is not officially in session. The defense of the thesis is approved when a majority of the supervisory committee members recommend approval and sign the Report of the Result of Final Master’s Thesis Examination form and the committee approval page in the thesis.

Within 48 hours of the defense, the supervisory committee chair shall report the results of the final thesis examination in writing to the candidate and to the departmental principal graduate advisor (Arts and Sciences) or graduate officer, who then informs the registrar.

Deposit of Approved Thesis with Libraries

For regulations pertaining to deposit of approved thesis with libraries, refer to Thesis and Dissertation Preparation and Approval Process, included under Graduate Academic Regulations (p. 1189) in this section.

Doctoral Degree Programs (Ed.D., Ph.D., D.M.A.)

The Ed.D., Ph.D. and D.M.A. degree programs at UMKC have the following elements in common:

• Appointment of supervisory committees.
• Approval of doctoral programs or plans of study.
• Satisfaction of a doctoral residency requirement.
• Satisfactory completion of a doctoral comprehensive examination in order to advance to candidacy.

In addition, all Ph.D. programs and the Ed.D. program have the following elements in common:

• A work of original research or scholarship reported in dissertation form.
• Formal defense of the candidate’s dissertation.

The specific requirements for satisfying these common elements may vary from program to program. Doctoral students are also subject to most of the minimum general graduate academic regulations and degree requirements listed in previous portions of this catalog section.

The following general regulations are minimum requirements. Each degree program may have regulations that are more stringent and would take precedence over the minimums stated previously. Refer also to graduate regulations described in previous sections that are common to all graduate or doctoral students and to degree requirements listed under the academic unit sections of this catalog.

Supervisory Committee

At the request of the non-interdisciplinary Ph.D. student, the D.M.A. student or the Ed.D. student, and upon the recommendation of the student’s advisor, the graduate officer for the degree program will appoint a supervisory committee consisting of at least three members of the graduate faculty, including the student’s advisor. While the chair of the initial supervisory committee can be a member of the graduate faculty, once the student has reached the dissertation stage, the committee must be chaired by a member of the University of Missouri doctoral faculty. In some cases, following the procedures of the specific program, the dissertation director need not be the chair of the committee but must be, at a minimum, either a graduate faculty or adjunct graduate faculty member.

Non-interdisciplinary Ph.D. and D.M.A. student dissertation committees must have at least five members and Ed.D. student dissertation committees must have at least four members. The majority of the members of the non-interdisciplinary Ph.D., Ed.D. and D.M.A. dissertation committees must be doctoral faculty or regular graduate faculty members. Three of the five members of Interdisciplinary Ph.D. student supervisory and dissertation committees must hold doctoral faculty status. See the Interdisciplinary Ph.D. academic regulations section (p. 1232) for additional specifications for Interdisciplinary Ph.D. supervisory committees.

Qualifying Examination

The qualifying examination, if required, will be given before the doctoral program of study is filed with the graduate officer. At the discretion of the school or department and the supervisory committee, a master’s degree from UMKC in the area of intended specialization may be considered as a substitute for the qualifying examination. Students must submit a request to take the qualifying examination to the appropriate department chair in the College of Arts and Sciences or the dean of that professional school. The results of the qualifying examination will be reported to the graduate officer, who will inform the student and the registrar. With approval of the advisor and supervisory committee, students may take the qualifying examination a second time.

Doctoral Programs of Study

Students should plan their programs of study in consultation with their advisors and supervisory committees. Forms for specifying individual programs of study are available from the principal graduate advisor or graduate officer of each academic unit. It is recommended that students file this program of study with the graduate officer in their academic units before 60 percent of the coursework applicable to the degree is completed.
(Interdisciplinary Ph.D. students must file their proposed plans of study and form their supervisory committees within 24 months of being admitted.) No more than 40 percent of the program may be 300- and 400-level courses. After the proposed program has been approved, as required by the academic unit, the unit’s graduate officer will distribute copies of the program of study to the registrar, the advisor and the student.

Subsequent changes in the program of study must be approved by the student’s advisor, supervisory committee, the dean or department chairperson of the school in whose area the specialization is offered and the graduate officer, who also will inform the registrar of such changes. If cumulative changes in courses and degree requirements exceed four, a revised program of study should be filed.

**Transfer Credit**
Graduate credit earned before entering a UMKC doctoral program may be applied to the doctoral degree if it is of acceptable quality and appropriate to the student’s program of study as determined by the student’s academic unit and supervisory committee. The total amount of graduate credit earned from all other academic institutions before admission to a UMKC doctoral program and applied to the doctoral degree cannot exceed half the number of credit hours, exclusive of dissertation research credits, required for the degree. For graduate coursework completed at UMKC prior to admission to a doctoral program, any number of credit hours required for the doctoral degree, exclusive of dissertation research, can be satisfied using previous UMKC graduate credit if approved by the student’s academic unit and supervisory committee. All graduate coursework, completed prior to admission and not used to earn the master’s degree or educational-specialist degree, must be no more than seven years old at the time the doctoral program of study is approved.

After admission to the doctoral program, if a student wishes to take graduate coursework at another institution and apply it to their doctoral program, the student must receive written approval from the doctoral program’s graduate officer and from the student’s supervisory committee chair, as appropriate, before the coursework is taken. Such coursework is not considered as transfer credit. Upon completion of the coursework, the student must have the official transcript forwarded to the UMKC registrar.

**Residency Requirements**

**Interdisciplinary Ph.D. Students**
Interdisciplinary Ph.D. students must satisfy the doctoral residency requirement by satisfactory completion of at least 18 credits in no more than 24 consecutive months. When satisfying the residency requirement, all Interdisciplinary Ph.D. students are subject to the following restrictions:

1. The doctoral residency requirement must be satisfied no later than the end of the semester in which the student completes his or her comprehensive examinations.
2. Students must achieve a cumulative graduate grade-point average of at least 3.0 in all courses counted toward satisfying the residency requirement.
3. Dissertation research credits (696 to 699) may not be counted toward satisfying the doctoral residency requirement.

**Non-Interdisciplinary Ph.D. and Ed.D. Students**
The residency requirement for the Ed.D. student or non-interdisciplinary Ph.D. may be satisfied using the same guidelines stipulated for Interdisciplinary Ph.D. students, or in any one of the following alternate ways:

1. Two consecutive semesters of 12 credits each term of resident coursework at UMKC.
2. Three terms of eight credits each term of resident coursework at UMKC, to be completed within 18 months.
3. Two consecutive semesters of nine credits each term of resident coursework at UMKC while employed at least half time for the University in teaching or research.

**D.M.A. Students**
The residency requirement for the D.M.A. may be satisfied in any one of the following ways:

1. Two consecutive semesters with a minimum of nine credits each.
2. One semester with a minimum of nine credits and two summer sessions with a minimum of five credits each, provided that the full-time semester is adjacent to one of the summer sessions. It is expected that the summer sessions be consecutive.
3. Completion of 24 credits within 18 consecutive months.

**Comprehensive Examination**
To advance to degree candidacy, doctoral students are required to pass a comprehensive examination. D.M.A. students selecting a non-dissertation option may satisfy the comprehensive examination requirement during their final semester. For all other doctoral students, the comprehensive examination must be successfully completed at least seven months before the date of graduation:

- For graduation in May: Nov. 1.
- For graduation in July: Dec. 1.
- For graduation in December: May 1.
The following requirements must have been met before students can take the comprehensive examination(s):

1. Assignment of a supervisory committee. (In Counseling Psychology and Psychology the examination committee is separate from the dissertation committee).
2. Successful completion of the qualifying examination, if required.
3. Filing and approval of the program of study and completion of essentially all coursework required for the degree.
4. If required by the academic unit, satisfactory demonstration of foreign language proficiency through accepted coursework or other evidence specified by the student’s supervisory committee.
5. Completion of residency in most cases.

The comprehensive examination may be written, oral or both. The exam is scheduled either through their advisor or in some departments the exam is set on a calendar basis (eg. Counseling Psychology and Psychology). Through either their advisors or their department, students will apply to either their graduate officer in their academic unit or their department for an examining committee to be composed of a minimum of five members of the graduate faculty with the exception of Counseling Psychology which requires four members. In most cases the examination committee is also the dissertation advisory committee, in other cases the dissertation committee is formed after successful completion of the comprehensive examination. If an oral examination is required as part of the comprehensive examination, all members of the examining committee are required to attend the entire exam. Synchronous modes of communication or committee substitutes are allowed if approved by the graduate officer where the degree or primary discipline resides, in consultation with the chair of the student’s examining committee, when physical presence conflicts with a major commitment.

The examination will be arranged and supervised by the advisor or other department official in the case of Psychology and Counseling Psychology. It will generally terminate within one month after it starts, but longer periods may be required in specific disciplines. Upon satisfactory completion of the examination, the student’s advisor sends a report of the results of the examination, with the signatures of all members of the examining committee, to the graduate officer, who, in turn, informs the student and the registrar.

A student is considered to have passed the comprehensive examination if all, or all but one member, of the examining committee vote that the candidate passes. If failure is reported, the examining committee will either recommend termination of status as a doctoral student or suggest additional work or other remedial measures. Furthermore, a student who has failed may not take a second examination for at least 12 weeks. Failure of a second comprehensive examination shall automatically preclude candidacy at this institution.

Non-Interdisciplinary Students in Counseling Psychology and Psychology
The Ph.D. programs in Counseling Psychology and Psychology have specific procedures in place for their respective comprehensive exams that are designed to meet the unique requirements of preparing professional psychologists. Please refer to the respective programs for details about their comprehensive examinations.

Program Time Constraints
The doctoral student must take and pass the doctoral comprehensive examination and advance to candidacy within five years from the beginning of doctoral coursework (within four years if entering with a master’s degree in the same or closely related field). After the establishment of degree candidacy, a maximum of five years will be allowed for completion of degree requirements. Failure to complete the work within the periods specified will necessitate re-evaluation of the entire program and may result in a notice of termination. In compelling circumstances and on the written recommendation of a majority of the student’s supervisory committee members, the dean of the School of Graduate Studies may grant a one-year extension. Some academic units may impose more stringent time requirements.

Required Enrollment
See Continuous Graduate Enrollment Requirement, included in the Graduate Academic Regulations part of this section.

Dissertation and Completion of Degree
Dissertation Definition
A dissertation is a written coherent treatise culminating from original in-depth research, that is of publishable quality for a peer refereed journal and deserving of the highest academic degree, a Doctor of Philosophy. The work should move the field forward by making significant contributions to the existing body of knowledge. It may include statement of goals, an in depth review and critical analysis of the existing literature and background information, a plan of research or methodology, collection and analysis of data to present as results, a discussion of the findings, and citations.

Doctoral Dissertation Requirement
All UMKC Ph.D. degrees and the Ed.D. degree require a dissertation as the final component of the program. The dissertation is also a requirement in some D.M.A. programs and an option in others. The doctoral faculty view the dissertation as one of the most important aspects of the student’s experience because:

- It is a work of original research or scholarship that makes a contribution to existing knowledge.
- It is an educational experience that demonstrates the candidate's mastery of research methods and tools of the specialized fields.
Dual Degree Programs at the Master’s Level and Bachelors + Master’s or Graduate Certificate Level

- It demonstrates the candidate's ability to address a major intellectual problem.

For regulations pertaining to formatting the dissertation and the process for approval, the reader is directed to Thesis and Dissertation Preparation and Approval Process, included under Graduate Academic Regulations in this catalog section.

Final Dissertation Examination

Final examinations in defense of the dissertation are open to all members of the doctoral faculty, who may attend as interested observers. The format and procedures of the defense are determined by the supervisory committee and its chair. The date, time and location must be announced and published at least two weeks before each final examination takes place. This examination may be conducted only after the dissertation has been approved by the dean of the School of Graduate Studies, and may not be administered when UMKC is not officially in session. All members of the dissertation committee, or substitutes approved in consultation with the chair of the committee by graduate officers in the academic units where the degree or primary discipline resides, are required to attend the entire examination. Synchronous electronic modes of communication are allowed for committee members when physical presence conflicts with a major commitment upon approval of the graduate officer.

The defense of the dissertation is approved when a majority of the supervisory committee recommend approval and sign the Report of the Result of Final Doctoral Examination form. Within 48 hours of the defense, the supervisory committee chair will report the results of the final dissertation examination in writing to the candidate. For non-interdisciplinary doctoral candidates, the supervisory committee chair also will report the results of the defense to the principal graduate advisor (Arts and Sciences) or graduate officer. The departmental principal graduate advisor (Arts and Sciences) or graduate officer, in turn, informs the registrar.

Deposit of Approved Dissertation with Libraries

For regulations pertaining to deposit of the approved dissertation with the libraries, refer to Thesis and Dissertation Preparation and Approval Process, included under Graduate Academic Regulations in this catalog section.

Dual Degree Programs at the Master’s Level and Bachelors + Master’s or Graduate Certificate Level

Dual-degree programs allow students to simultaneously pursue degrees at the master’s level in two fields of study or a Bachelor’s plus either a Master’s or Graduate degree. For dual Masters degrees, students must complete at least 80 percent (rounded up) of the credit hours required for each degree separately. Students must satisfy admission, course and examination requirements of both degree programs.

For dual Bachelors plus Master’s or Graduate Certificate programs, a maximum of 9 credit hours from the BS degree program may be applied toward the Master’s degree depending on what the department or home degree program has approved. The hours and grades earned on these credits will be applied toward the Bachelor's degree. The number of dual hours will also be credited toward the total hours needed for the Master's degree without the grades being computed into the GPA.

Foreign Language Proficiency - Graduate Students

Degree-seeking graduate students whose degree program requires foreign language proficiency may take the courses numbered 120, 211 or 221 (Elementary Level II, Second Year Level I or Second Year Level II) in one foreign language to fulfill the requirement (check with your graduate advisor to determine what proficiency level and language your degree program demands). The degree program will determine what grade will be accepted as proof of fulfillment.

Students who already have the required level of proficiency but no documented means of showing it may choose to take the final exam associated with the appropriate class level to fulfill their degree program's language requirement (course number 120, 211 or 221). After taking the exam a letter stating the student’s results will be sent to the graduate advisor of the student’s degree program.

To arrange to take the exam, please contact the undergraduate advisor for your language or contact the Department of Foreign Languages and Literatures secretary for more information.

(For students whose program allows a general interest reading exam, the Foreign Languages and Literatures Department's approved exam is administered by American Council on the Teaching of Foreign Languages (ACTFL). Please contact the department for information on how to register for this on-line exam).

International Graduate Student Admission Policies and Procedures

General Graduate Admission Policies

Minimum Admission Requirements

Graduates of schools outside the U.S. may be considered for admission to a graduate degree program at UMKC, subject to the following criteria.

1. They must have completed a course of study at least the equivalent of a U.S. baccalaureate degree.
2. They must have above-average grades in previous college study.

3. They are required to establish proof of adequate English proficiency as part of the UMKC admissions process. Applicants from countries in which English might be one of the official languages, but is not necessarily the first language of the majority of the population, must attain a minimum composite score of either 213(CBT) or 80(iBT) on the Test of English as a Foreign Language (TOEFL), or a score of 6.0 on the International English Language Testing System (IELTS) to be considered for admission.¹ The results of the examination must be received in the UMKC International Student Affairs Office before the application deadline. Exceptions to this policy:
   • Non-native speakers who hold degrees or diplomas from post-secondary institutions in English-speaking countries [the full list of countries may be found http://info.umkc.edu/ISAO/wp-content/uploads/2015/06/Countries-Exempt-from-TOEFL-or-IELTS.pdf], provided they have spent a minimum of two years or a total of 60 credit hours in successful full-time study there and English was the medium of instruction.
   • International transfer students from other institutions in the United States or Canada who have spent a minimum of two years in successful full-time study.

4. In addition to 1 through 3 above, international graduate students must satisfy any program-specific admission criteria. For instance, the Graduate Management Admission Test (GMAT) is required for applicants for graduate study toward the M.B.A. degree. Several programs require TOEFL scores that are well above the minimum stated previously. The Graduate Record Examination (GRE), including the appropriate Advanced Test, is either required or strongly recommended for all other international graduate applicants. International students planning to apply are directed to consult the appropriate degree program listing for additional criteria and medical requirements.

¹ For TOEFL information contact
TOEFL Services
The Educational Testing Service
PO Box 6151
Princeton, NJ 08541-6151 USA
http://www.ets.org/toefl
Request official TOEFL scores be sent to UMKC’s institution code 6872.

For IELTS contact
The International English Language Testing System
http://www.ielts.org
Request official IELTS scores be sent to
UMKC International Student Affairs
Student Success Center, G-04
5000 Holmes Street
Kansas City, MO 64110

Detailed information can be obtained from U.S. embassies, consulates general, bi-national centers and other offices throughout the world.

As noted in the general section on graduate admissions, the graduate degree programs at UMKC have varying schedules for receiving, reviewing and acting on applications for admission. Applicants are directed to the program listings elsewhere in this catalog. This institution reserves the right to consider applicants for the most appropriate term.

Required Academic Records for International Applicants
Applicants must provide complete and official certificates of all degrees, diplomas, mark sheets, grade reports and examination records. If documents are in another language, applicants must also provide a literal English translation.

Deadline for Application for Admission and International Applicant and Student Financial Statement
Deadline for Application for Admission International students must present evidence of sufficient finances to cover their university and personal expenses while they are attending UMKC. A prescribed financial statement must be completed and returned with their other application materials. UMKC will not assume any financial responsibility for international students. Students seeking admission to the graduate level after an undergraduate program must submit a new financial support statement. Student Financial Statement

Additional Information and Forms
International applicants to graduate programs who want more information and forms to apply for admission can go to http://www.umkc.edu/isao or write:

International Student Affairs
University of Missouri-Kansas City
Student Success Center, G-04
5000 Holmes Street
Kansas City, MO 64110-2499, U.S.A.

Forms to apply for graduate admission can also be downloaded from one of the following Web sites:
International Graduate Student Academic Regulations

In addition to the minimum graduate academic regulations and degree requirements common to all graduate students or specific to their particular degree programs, international graduate students at UMKC are subject to the following special requirements and regulations:

Registration with Student Advisor

Admitted international students must clear their attendance and register at the office of the international student advisor prior to their first registration at UMKC. Once admitted, international graduate students must show satisfactory and regular progress toward their graduate degrees.

Health Insurance

International students are required to purchase UMKC mandatory, exclusive health insurance.

English Proficiency Requirements

Proficiency in written and spoken English is essential to international graduate students’ success in their degree programs at UMKC. To ensure that all international graduate students either already have, or have an opportunity to acquire, these necessary skills at a level appropriate to their degree program, the Graduate Officers Committee supports the following guidelines:

• Current minimum TOEFL scores for entering students and graduate teaching assistants should be strictly adhered to by all academic units without exception.

• Prior to their first enrollment in classes at UMKC, newly admitted international graduate students must take the English Evaluation Examination conducted by the UMKC Applied Language Institute (ALI) unless they are exempted from this requirement.

• Based on results of the English Evaluation Examination scores, such students must enroll in and successfully complete the applied language courses indicated as necessary by the student’s academic unit in consultation with the UMKC Applied Language Institute.

• Prospective international graduate students should be aware that required coursework in English as a second language may add extra time to their individual graduate programs of study.

• The only international graduate students exempted from this admissions policy are the following:
  • Native English speakers from English-speaking countries such as Canada, England, the Republic of Ireland, Australia and New Zealand.
  • Non-native English speakers who hold degrees or diplomas from post-secondary institutions in English-speaking countries (such as the United States, Canada, England, the Republic of Ireland, Australia and New Zealand) provided that they have spent a minimum of two years of successful full-time study and English was the medium of instruction.

Policy on Award of Teaching Assistantships

In 1986, the Missouri State Legislature and the University of Missouri Board of Curators adopted a policy which seeks to guarantee effective, high quality instruction for undergraduates. The state has mandated, and the Board of Curators fully supports the ruling, that graduate students who did not receive both their primary and secondary education in a nation or territory in which English is the primary language may not hold a teaching appointment during their first term of enrollment at any public institution of higher education in the state of Missouri. In addition, all such students shall be tested for their ability to communicate orally in English in a classroom setting and, those students who have not previously lived in the United States shall be given a cultural orientation to prepare them for teaching prior to receiving an appointment.

The first two requirements are dictated by the Missouri Revised Statutes, Section 170.012, (http://www.moga.mo.gov/mostatutes/stathtml/17000000121.html) and do not represent a change to the UMKC certification requirements:

• Students in the above category may not hold a GTA appointment during their first term of enrollment at UMKC.

• If students in this category have not previously lived in the United States, they must participate in a cultural orientation to prepare them for their teaching appointment.

UMKC Standards

• Students must have been enrolled at UMKC at least one term prior to receiving a GTA or GI appointment – this is Missouri law.

• Students must have attained a minimum official iBT TOEFL score of 79 – this is an admissions requirement, not a GTA or GI requirement.

• A graduate student from a nation or territory other than the U.S. must have satisfied each of the following standards in order to be certified to accept a GTA or GI appointment. The only exceptions are for students who have earned a degree (undergraduate or graduate) from a U.S.
Admission to UMKC does not guarantee a GTA or GI appointment; students must fulfill separate certification requirements in order to be eligible for GTA or GI positions, as follows:

- Attain a passing TOEFL score
  - 24+ is eligible for Panel Presentation.
  - 22-23 needs a departmental petition.
  - <22 needs an Applied Language Institute oral interview.
- Attend the fall Cultural Orientation.
- Complete a Panel Presentation (a mock lecture with a student and faculty panel).
  - The TOEFL requirement is a prerequisite to the Panel Presentation.
  - The Panel Presentation will typically be scheduled via email. There will be a panel of graduate faculty members and undergraduate students.
  - The student should prepare 5-7 minutes of a mock lecture on the topic of his/her choice. There will also be a short question-and-answer session following the mock lecture to allow the panel to assess Comprehension.
  - The panel of 6-10 will use a rubric to determine the student’s level of English proficiency. There are 5 points possible in 5 categories, for a total possible 25 points. In order to pass, the student must have an average of 19 points from the panel members. The rubric categories are:
    - Comprehension — can the candidate understand the English spoken by others
    - Fluency/Delivery — does the candidate speak fluently, intelligibly, and without hesitation
    - Vocabulary — does the candidate use terms correctly and use adequate verbiage to represent his/her ideas
    - Pronunciation — does the candidate pronounce words intelligibly and with proper intonation
    - Grammar — does the candidate correctly use grammar and word order

Note: If you want to retake the iBT for the opportunity to receive a higher score, the current iBT cost is $190.

Each student has the responsibility to cover the cost of the exam, but each department may elect to cover these costs at their discretion.

The following table details the roles international Graduate Teaching Assistants can perform based on the internet-based TOEFL speaking section scores and their performances in mock lecture panel presentations.

<table>
<thead>
<tr>
<th>TOEFL speaking score</th>
<th>Panel Presentation</th>
<th>Title</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>24+</td>
<td>Pass</td>
<td>GTA or GI</td>
<td>- Attend Cultural Orientation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Assistants may NOT be the sole instructor in a class, but must work under the supervision of a faculty member.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Graduate Instructors may be the sole instructor of a class.</td>
</tr>
</tbody>
</table>

| 24+                  | Fail               | None - can apply for GRA or GA position | - Attend Cultural Orientation                                               |
|                      |                    |                                       | - Cannot have direct contact with the undergraduate students in the courses, but can be a course grader in a GA position. |
|                      |                    |                                       | - Another panel presentation can be scheduled in a subsequent semester if a student wants to become an Assistant to the Instructor in a future semester. He/she may also enroll in English 100S-Special Topics from 1 to 6 credits for on-one tutorials via the Applied Language Institute (ALI) |
22 or 23

Student may request a departmental petition to the School of Graduate Studies. With an approved petition, a student will be allowed to deliver a mock lecture.

- If student passes the panel presentation, he/she is eligible to be a GTA or GI.
- If student fails the panel presentation, he/she may enroll in English 100S – Special Topics via ALI as explained below. The student may schedule another panel presentation in a subsequent semester.

Less than 22

N/A

None

- An international student who does not score at least 22 on the TOEFL speaking section is not eligible for a GTA or GI position without a passing Applied Language Institute oral interview.
- Student can also schedule an Oral Interview via the Applied Language Institute. This one-on-one discussion will allow the ALI representative to assess the student's English proficiency in several key areas, and recommend to SGS what the student's next steps should be.
- Students may be required to enroll in English 100S – Special Topics via ALI as explained below.

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The Applied Language Institute will first assess a student, then have him/her enroll in English 100S – Special Topics for one-on-one tutoring. Additional credits may be necessary depending on the student’s degree of English proficiency. The charge for the student to enroll in this course is to be paid by the department or unit. The Applied Language Institute can be reached at (816) 235-1233 or at 5301 Rockhill Road.

For information on dates, or to register for the next Cultural Orientation or a panel presentation, contact the School of Graduate Studies (816) 235-1161.

Exceptions to any of these certification standards must be authorized by the Dean of the School of Graduate Studies. Departments wishing to request an exception for a student must submit a written petition for exception to the graduate dean, including full justification supporting the request, prior to the beginning of the term for which the GTA appointment is sought.

If the student decides to retake the iBT they may do so at the UMKC Testing Center, which is located at 4825 Troost, Suite 206, and is the Kansas City testing site. The Testing Center can be reached at (816) 235-5820. The test may be scheduled online, on the phone, or via paper through ETS.

Upcoming test dates/locations can be found here (http://www.ets.org/toefl/ibt/register/centers_dates?WT.ac=toeflhome_centersdates_121127) via ETS. The UMKC Testing Center is the Kansas City testing location, and there is an Overland Park location and a Lee's Summit location. Tests are typically offered at least two weekends a month on the Friday or Saturday of the weekend.

University of Missouri (UM) System Visiting Graduate Student Program

Effective Fall 2011, the UM Visiting Graduate Student Program replaces the UM Traveling Scholars Program. The UM Visiting Graduate Student Program offers eligible graduate students a streamlined process for applying and registering for graduate courses on other UM campuses.

To participate in the UM System Visiting Graduate Student Program, a graduate student must be a degree-seeking graduate student and in good-standing on the home campus and host campus.

To apply for this program, a “UM System Visiting Graduate Student Application” should be completed and submitted to the home campus Graduate office for certification, at least two weeks before the beginning of the semester. The graduate student’s home campus Graduate office will review the
form; if approved, the home campus Graduate office will transmit the approved form to the host campus Graduate office. The host campus will notify the student when they are eligible to register for courses.

All course fees are paid to the host campus. Graduate students should contact their home campus Financial Aid office for more information on financial aid. International (non-U.S. citizen) students should consult the International student office on their home campus to determine eligibility for this program.

The graduate student’s home campus determines transferability and the maximum number of transfer hours allowed for courses taken as a UM Visiting Graduate student. To officially transfer courses from the host campus to the home campus, students must order an official transcript from the host campus and comply with the home campus’s transfer policies and processes.

For additional questions contact the School of Graduate Studies Office.

**Cooperative Doctoral Degrees**

Through the UM cooperative doctoral program, graduate faculty members who hold membership in the doctoral faculty of the University of Missouri are eligible to serve as directors of doctoral dissertations on their resident campus, as well as on any of the other three campuses offering a doctoral degree in the doctoral-faculty member’s academic field. Students who want to pursue doctoral degree programs in conjunction with one of the other three campuses of the University of Missouri may do so in accordance with the guidelines listed below. The registrars at University of Missouri-Columbia (MU), Missouri University of Science and Technology S&T, or University of Missouri-St. Louis (UMSL) can provide information on admission procedures for the doctoral programs on their respective campuses.

In the following guidelines, the terms primary campus, graduate school or dean refer to that granting the degree.

- Students must be accepted by the department or area granting the degree and must comply with all the rules of the primary graduate school and discipline/area regulations.
- The dissertation advisor must be a member of the doctoral faculty of the University.
- Advisory/supervisory committees, comprehensive committees and oral committees, as required, will be appointed by the primary graduate dean in consultation with the graduate dean on the participating campus, drawing on faculty on both the cooperating and primary campus:
  a. The makeup of each committee normally will be recommended by the major advisor with the approval of the appropriate director of graduate studies/department chair/divisional dean as per normal campus procedures.
  b. In cases where students are on a cooperating campus:
     i. The advisor/supervisory committee chair may or may not be on the same campus. If that person is on the cooperating campus, at least three of the five members of the committee will be from the primary campus.
     ii. Students must complete the residency requirement on the primary campus. Exceptions to this ruling must be justified fully with emphasis on quality and cost considerations and must have the approval of the primary graduate dean.
- Selection of the cooperating departments and preparation of a program must be completed at the earliest possible moment and communicated via the primary graduate dean to the participants involved. Both graduate deans will maintain program files relative to students. Respective graduate deans are responsible for the quality of that portion of the cooperative program that is performed on their campus and under the jurisdiction of their faculty.
- Reporting of the degree shall be the responsibility of the primary campus. The cooperating campus shall be given credit in terms of student credit hours and/or dissertation credits for the work completed on that campus and shall provide suitable recognition of dissertation advisors and the committee members.

**Graduate Teaching and Research Assistantships**

Financial support for graduate students is most frequently provided through the academic unit in which the student is enrolled. This support may be in the form of a Graduate Teaching Assistantship (GTA), a Graduate Research Assistantship (GRA) or a named fellowship. The stipend amounts and number of awards vary from unit to unit. Students interested in consideration for such support should contact the principal graduate advisor or graduate officer in the respective unit for information on application procedures and deadlines.

Each semester, students who hold GTA or GRA appointments also may be recommended by their academic units for chancellor’s GTA/GRA fee remission awards. These awards cover the basic graduate educational fee for six credit hours.

For students who are not residents of Missouri, an additional benefit of having a GTA or GRA appointment is that it qualifies them for a chancellor’s non-resident fee remission. A minimum FTE of 25 percent (a full-time equivalent of 100 percent is 40 hours) is required to be eligible for this award.

**Federally Supported Sources of Financial Aid**

Graduate students who are U.S. citizens or permanent residents and who are enrolled at least half-time, with financial need demonstrated via the FFS analysis, may be considered for aid through the College Work Study Program. They also may apply for a Perkins Loan (formerly NDSL) or a Guaranteed Student Loan. Additional information on these programs is available from the
Institutionally Supported Fellowship and Award Competitions

The School of Graduate Studies administers a number of annual competitions for graduate fellowships. Fellowship stipends vary. Some include remission of portions of the graduate education fees and all include remission of non-resident fees, if applicable. Detailed information is available from the School of Graduate Studies office and website: http://sgs.umkc.edu/fellowships-and-grants/. Applications are normally due in the fall (November, just before Thanksgiving) for fellowships to be awarded for the following academic year. Application deadlines, eligibility and selection criteria, and the application forms are posted on the School of Graduate Studies Web site.
Among the fastest-growing career areas are the health-related professions and this trend is likely to continue in the 21st century, according to the U.S. Department of Labor. These employment opportunities require specialized training and one to four years of college-level studies in the appropriate pre-professional curricula. The pre-medicine/pre-health tracks are designed to help prepare students for future careers in the health arena and guide them through the process of applying to the various professional programs in health care.

The pre-medicine/pre-health tracks designed by the College of Arts and Sciences and the School of Biological Sciences assist students following a traditional path toward ultimately earning a professional degree in a medical or health care field. Most students first earn a bachelor’s degree, followed by training in a professional program such as a four-year medical or dental school or a master’s degree program. These tracks are distinctly different from the unique six-year programs offered by UMKC in medicine and pharmacy described elsewhere in this catalog. For information about dentistry please see the UMKC Dental Program in the Graduate Catalog.

Some of the pre-professional programs in health care include:

- Pre-Dental Hygiene
- Pre-Dentistry
- Pre-Health, which includes advising for careers in:
  - Anesthesiologist Assistant
  - Chiropractic
  - Clinical Perfusion
  - Health Administration
  - Health Information Management
  - Nutrition/Dietetics
  - Occupational Therapy
  - Optometry
  - Physical Therapy
  - Physician Assistant
  - Podiatry
  - Respiratory Therapy
  - Veterinary Medicine
- Pre-Medicine (allopathic and osteopathic)
- Pre-Nursing
- Pre-Pharmacy
- Medical Technology (see section under School of Biological Sciences)

Choosing an Undergraduate Major

Following the pre-medicine or pre-health track means taking specific courses that professional programs require for admission, but "pre-medicine" or "pre-health" are not actual degrees. Students need to choose a major field of study to combine with one of these tracks. Students can choose to follow these tracks through the College of Arts and Sciences or the School of Biological Sciences, depending on the major selected. Professional schools accept individuals from a variety of educational backgrounds and majors. When choosing a major, it is wise for students to consider their personal interests and strengths as well as possible alternative career goals.

The School of Biological Sciences offers degrees in biology, including a bachelor of science in biology with an emphasis in the cellular and molecular basis of health and disease for pre-medicine students, and a pre-dentistry concentration for pre-dentistry students. Undergraduate students in the biological sciences also have the opportunity to work with faculty mentors in life sciences research.

The College of Arts and Sciences offers degree choices and medically related undergraduate research in areas spanning the sciences, social sciences, and humanities. Popular majors to combine with pre-medicine and pre-health include psychology, chemistry, communication studies, physics, English, Spanish, and philosophy. Many other combinations in the 18 academic departments are possible, and advisors in the tracks will help students apply their interests to design the right combination.

Pre-Medicine/Dentistry

The purpose of the pre-medicine/dentistry curriculum is to prepare the student for application to medical/dental schools. Students may complete the pre-medicine/dentistry curriculum within any major.
The courses recommended in the pre-medicine/dentistry curriculum do not constitute an academic major but are the courses required for entrance into the majority of medical/dental schools in the United States and Canada. They also provide students with the information needed to obtain top scores on the Medical College Admission Test (MCAT) and Dental Admissions Test (DAT), which are required for entrance into medical and dental schools.

In addition to gaining a strong foundation in the sciences, pre-medicine/dentistry students also will receive support services to help them best prepare for application to medical or dental school.

For students considering other health professions or seeking admission to specific programs with additional prerequisite courses, the curriculum may be tailored to meet these requirements.

### Medical/Dental School Admission Requirements

1. **Two semesters of general biology with corresponding laboratories:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGY 108</td>
<td>General Biology I</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 108L</td>
<td>General Biology I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOLOGY 109</td>
<td>General Biology II</td>
<td>3</td>
</tr>
<tr>
<td>BIOLOGY 109L</td>
<td>General Biology II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

2. **Two semesters of general chemistry with corresponding laboratories:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 211</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 211L</td>
<td>Experimental General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 212R</td>
<td>General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 212LR</td>
<td>Experimental General Chemistry II</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>10</strong></td>
</tr>
</tbody>
</table>

3. **Two semesters of organic chemistry with corresponding laboratories:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 321</td>
<td>Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 321L</td>
<td>Organic Chemistry Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 322R</td>
<td>Organic Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 322L</td>
<td>Organic Chemistry Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

4. **Two semesters of physics including laboratories:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYSICS 210</td>
<td>General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYSICS 220</td>
<td>General Physics II</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

5. **Two semesters of English composition:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH 110</td>
<td>English I: Introduction To Academic Prose</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 225</td>
<td>English II: Intermediate Academic Prose</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

In addition to the admission requirements listed above, most medical and dental schools recommend more advanced courses in biology, such as cell biology, genetics and biochemistry, and/or additional chemistry courses. Students should also take upper-level courses that demonstrate the requisite intellectual discipline and analytical and problem solving skills necessary to succeed in medical or dental school. Students are strongly encouraged to balance their work in the sciences with courses in communication studies, computer science, English literature, philosophy, psychology and sociology. A broad understanding of health care and medicine is also expected and work and/or volunteer experiences, including physician shadowing, in settings such as health care agencies, hospitals and physician offices is recommended.
UMKC School of Medicine MD Completion Program

While the UMKC School of Medicine is primarily a combined-degree (BA/MD) program, it annually accepts a limited number of MD-only students who have completed their pre-medical studies and baccalaureate degrees. Students completing their pre-medical studies at UMKC and applying to the School of Medicine have the advantage of taking courses with medical students, interacting with faculty who also teach at the medical school and securing recommendations from individuals familiar with the School of Medicine’s curriculum and faculty. For more information about this program or to request an application, contact the Admissions Office at the School of Medicine.

UMKC School of Dentistry Reserved Admission Program

The Reserved Admission Program for the Doctor of Dental Surgery (DDS) degree at the UMKC School of Dentistry enables highly motivated, ambitious, talented students to pursue their dream of becoming a dentist. Because admission to the Reserved Admission Program is very competitive, qualified reserved admission program students will have a reserved seat in a future UMKC School of Dentistry DDS Program class of their choosing, and they will not have to compete further for admission into the UMKC dental school. Entry into the program is available to students from Missouri and Kansas.

To be eligible to apply for Reserved Admission you must have completed a minimum of but not more than four semesters of college credit while being continuously enrolled in full-time course loads (a minimum of 15-18 credit hours per semester). Your science grade point average must be at least 3.60 in a degree-seeking program including prerequisite courses.

For more information about this program or to request an application, contact the Office of Student Programs at the School of Dentistry, (816) 235-2080.

Advising

Experienced advisors in the College of Arts and Sciences and the School of Biological Sciences are knowledgeable about the professional school admission processes.

Advisors guide students in:

- Choice of majors
- Choice of courses
- Volunteer and shadowing opportunities
- Undergraduate research options
- Other health care professions
- Career alternatives

Advisors also give students invaluable help with:

- The professional school application process
- Preparation for professional school admission tests (MCAT, DAT, OAT, VCAT, etc.)
- Letters of recommendation
- Writing the personal statement
- Successful interview strategies

College of Arts and Sciences Track

Cassandra Shaffer Johnson
Coordinator of Pre-Health Programs
Scofield Hall (http://www.umkc.edu/virtualtour/scofield.asp), Room 9
711 E. 51st Street
(816) 235-6085
shafferjohnsonc@umkc.edu

Students following the pre-medicine/pre-health track can enhance their preparation for health care careers through any major in the College of Arts and Sciences. While the relationship to majors such as chemistry or physics is clear, students may be surprised to discover how their interests in other majors within the College of Arts and Sciences (p. 30) will strengthen their abilities as future health care providers. For example:

- Students combining a major in psychology with the pre-medical/pre-health track will learn how psychology influences health and wellness, the prevention of disease and the healing process.
- Students majoring in communication studies will learn the critical importance of communication in health care, from the doctor-patient relationship to the interpersonal communication between members of a health care team to the power and politics of mass media.
- Philosophy majors will apply bioethical principles to "real world" dilemmas such as physician-assisted suicide.
Pre-medical and pre-health students can easily combine any major within the College of Arts and Sciences with the prerequisites for medical, dental or other health professions schools. First-year students in the College of Arts & Sciences pre-professional tracks who have not yet declared a major are required to enroll in the A&S Career Development sequence during their first two to three semesters. A&S 115, A&S 215 and A&S 315 are for one credit hour each and they are offered in a sequence starting in the fall semester. These courses are also highly recommended for all pre-professional freshman students with a declared major. UNIV 102, a two credit hour course, also satisfies the expectations for A&S 115 and A&S 215.

The College also offers:

- **The pre-medical/pre-dental curriculum** which may be combined with any major within the College of Arts and Sciences. This allows students the opportunity to complete the necessary prerequisite courses for admission to medical/dental schools in the United States and Canada.

- **Interdisciplinary courses that examine the complicated nature of health care**. Topics include the doctor-patient relationship, other aspects of health communication, health promotion and prevention and controversial issues in bioethics.

- **Medically related research projects** in such areas as clinical health psychology, chemistry, and physics. Current topics include disease prevention, psychological and communication barriers to adherence, and factors linking obesity, smoking, alcohol abuse, diet and exercise with cancer, cardiovascular disease and HIV/AIDS. Research partners include the Mid-America Heart Institute, Saint Luke’s Hospital, UMKC Schools of Dentistry and Medicine and the Kansas City Free Health Clinic.

- **Dental-related research projects** which investigate topics such as pain management, disease prevention, psychological barriers in the healing process and the use of chemistry and physics to identify and construct new polymers for use as posterior restorations.

- **The Gerontology Certificate** allows students to explore relevant medical and social issues of the new millennium as people live longer, our population ages, and “care” becomes as important as “cure.”

- **The Healing and Humanities Minor**. Faculty from the College of Arts and Sciences offer courses that enhance a student’s ability to understand the complicated world of health care and the relationship of healthcare with the humanities and social sciences. Students can combine the healing and humanities minor with any major in the College of Arts and Sciences or the School of Biological Sciences. Through courses for the healing and humanities minor (p. 386), students may strengthen their preparation for health careers by improving their communication skills, their appreciation of diversity and the arts, their understanding of bioethical dilemmas and their knowledge of the values, economics, and politics of health care. See the Healing and Humanities Minor for more information.

- **The Bioethics and Medical Humanities Minor**. Students can combine a minor in Bioethics and Medical Humanities in conjunction with any other major or as part of the BLA degree. See the Bioethics and Medical Humanities Minor (p. 483) for more information.

**College of Biological Sciences - PreMedicine/Pre-Health**

Tammy Welchert (http://www.umkc.edu/lookup/search.asp?LastName=cinkosktyt)
(816) 235-1385, welchert@umkc.edu

Chris Jordan (http://www.umkc.edu/lookup/search.asp?LastName=jordanc)
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Students interested in the scientific aspects of medicine or dentistry may find the School of Biological Sciences to be the right place for them. A major in biology incorporates courses in biology, chemistry and physics with a broad foundation in the social sciences and humanities. By meeting the degree requirements for the bachelor of science in biology with the cellular and molecular basis of health and disease emphasis, students will automatically fulfill all of the prerequisites and the upper-level biology courses which are highly recommended by most medical schools. The bachelor of science in biology with the pre-dentistry concentration allows students to complete all of the prerequisites and upper-level biology courses strongly suggested by most dental schools. More information about this can be found in the School of Biological Sciences section of this catalog.

- **Investigate the molecular basis of disease**. Courses such as genetics, cell biology, biochemistry and molecular biology examine the essential elements of modern biological sciences. Electives like neurobiology, endocrinology, immunology and virology emphasize experimental approaches that lay the foundation for the treatment and prevention of disease.

- **Perform hands-on experiments** with cells and tissues in facilities equipped with cutting-edge technology. Laboratory courses such as microbiology and histology bring textbook topics to life and allow students to learn the basics of research.

- **Discover and create new knowledge**. In cooperation with faculty, students apply powerful techniques like automated DNA sequencing, robotic genomic analysis and electron and confocal microscopy, to current biomedical problems. Students electing to do their own research may open many doors for their future.

- **Pursue personal interests in biology**. From the study of plants to the study of insects, students can explore practical applications like drug discovery and disease control by selecting from a variety of courses. Field trips and outings allow students to observe biological principles in action.

**Student Organizations**

There are more than 200 active student organizations (including Greek) at UMKC that promote student leadership, volunteerism, community service and socialization. Some of the popular organizations among pre-health students include:
Alpha Eta Chapter of Alpha Phi Omega
This organization carries out service programs aimed at serving the chapter, campus, community and nation with emphasis on serving primarily the UMKC campus and the Kansas City area.

Arts and Sciences Student Council
The council aims to provide an interdisciplinary body in which Arts and Sciences students can provide input on decisions and policies of the College. The council works to enhance student-faculty interaction and communication, allocate its authorized budget and insure that Arts and Sciences students’ needs, desires and attitudes are correctly represented to the administration.

Biological Sciences Student Government (BSSG)
The BSSG plans informational and social activities for students. Past activities include guest speakers from the Kansas City Police Department Forensics Unit, Children’s Mercy Hospital and the Missouri Department of Natural Resources, picnics and group ice-skating. Pre-medical students can participate in the School of Biological Sciences’ annual hosting of distinguished biomedical scientists, including Nobel Prize winners and National Academy of Sciences members, addressing frontier issues in biomedicine.

Institute for Leadership and Service
This university-wide organization focuses their mission on meeting community needs, improving participant’s lives, strengthening communities, and building partnerships. Through ILS activities, participants hone their leadership skills and community service experiences to complement their dedication to service in the health professions. Since health professional schools value these experiences, pre-health students can benefit from being involved with the ILS program.

Pre-Dental Society
This is a university-wide student organization that provides various extracurricular opportunities for students to learn about dental-related professions and to network with other like-minded students. Previous meetings have focused on the application process for dental schools, preparation for the DAT, and volunteer opportunities in the community. Guest speakers include current dental students, practicing dentists, and dental school admission representatives.

Pre-Dental Hygiene Society
This newly formed student organization allows pre-dental hygiene students to network together and learn about the profession of dental hygiene. Meeting topics include tours of the UMKC School of Dentistry and how to prepare for entry into dental hygiene programs. Guest speakers include dental hygiene faculty, students, and current practitioners.

Pre-Medical Society
This is a university-wide student organization that provides various extracurricular opportunities for students to learn about the health care professions and to network with other like-minded students. Previous meetings have included discussions on Bioethics, HMOs, organ donation, complementary medicine, genetics and gene therapy, cloning, HIV/AIDS and taking patient histories. The society regularly hosts recruiters from medical schools as well as representatives from volunteer opportunities in the community.

Pre-Physician Assistant Society
The purpose of this organization is to provide UMKC students with information regarding a career as a Physician Assistant. The organization meets regularly to provide members with networking opportunities and experience hands-on activities such as suturing clinics.
SPECIAL NOTICES

- Academic Honesty and Student Code of Conduct
- Acceptable Use Policy (p. 2316)
- Equal Opportunity Guidelines and Procedure (p. 2317)
- Notice of Nondiscrimination
- Policy on Student Records (p. 2319)
- Student’s Right-To-Know
- Telecommunications Services for the Speech and Hearing Impaired (p. 2319)
- UMKC AIDS Policy Statement

Academic Honesty and Student Code of Conduct

The Board of Curators of the University of Missouri recognizes that academic honesty is essential for the intellectual life of the University. Faculty members have a special obligation to expect high standards of academic honesty in all student work. Students have a special obligation to adhere to such standards. Academic dishonesty, including cheating, plagiarism or sabotage, is adjudicated through the University of Missouri Student Conduct Code (http://www.umsystem.edu/ums/rules/collected_rules/programs/ch200/200.010_standard_of_conduct) and Rules of Procedures in Student Conduct Matters (http://www.umsystem.edu/ums/rules/collected_rules/programs/ch200/200.020_rules_of_procedures_in_student_conduct_matters).

There are also academic honor codes in the schools of pharmacy, dentistry, medicine, nursing and law.

- School of Pharmacy Honor Codes
- School of Medicine Honor Codes (p. 2292)
- School of Dentistry Honor Codes (p. 2286)
- School of Nursing and Health Studies Honor Codes (p. 2303)
- School of Law Honor Codes (p. 2287)

School of Dentistry Honor Codes

Standards of Professional Conduct

(Approved by the Faculty of the School of Dentistry: 9/12/2002, Curator approval 4/2004)

Definition: In this document, “student” shall refer to any person having once been admitted to the School of Dentistry who has not completed a course of study and who intends to or does continue a course of study in or through the School of Dentistry. For the purpose of these rules, student status continues whether or not the University’s academic programs are in session.

Students at the University of Missouri at Kansas City School of Dentistry are seeking special knowledge, skills, and privileges. The confirmation of a professional degree, inferring the acquisition of knowledge and privileges, places the graduate of this institution in a unique position of assuming direct responsibility for health issues of those persons and institutions who place their trust in the University and the dental and dental hygiene professions. It is a demonstration of, and commitment to, special knowledge, protection of privileges, and assumption of responsibility and trust that, by definition, delineates a professional. Therefore, those who would aspire to receive the confirmation of a professional degree are expected to provide satisfactory evidence that exceeds knowledge and technical competence. Evidence that the well-being of patients, trust of society and respect of colleagues is a primary goal must be demonstrated. Accordingly, students must subscribe to principles of ethics and a code of professional conduct that gives testimony to their commitment and ability to deserve the privileges and trust with which society and their patients will honor them. This document serves as a guide for students.

The Standards of Professional Conduct are drawn from the Principles of Ethics and Code of Professional Conduct of the American Dental Association, and the American Dental Hygienists’ Association Code of Ethics. The former recognizes that students are under the supervision of graduate dentists and dental hygienists and other faculty during interactions with patients. Students should aspire to meet the high ideals of their professions which may exceed their legal duties, but must meet the minimum standards expressed in the School of Dentistry’s Code of Professional Conduct.

1. Dental and dental hygiene students must achieve and consistently demonstrate acceptable levels of personal hygiene and dress.
2. Dental and dental hygiene students must achieve and consistently demonstrate concern for patients, peers, and others. Dental and dental hygiene health care providers have a duty to ensure:
   a. Patients are treated according to their desires and must be included in treatment decisions.
   b. Patient confidentiality in the entire range of the provider-patient relationship which includes dental records.
   c. That no harm or potential harm is done to the patient either through intent, ignorance, lack of preparation for the patient encounter, lack of skill, personal impairment of any kind.
d. That no patient is “abandoned” which is defined as discontinuance of care without just cause and without giving the patient adequate notice and the opportunity to obtain the services of another provider.

e. That the patient’s welfare (i.e. the provision of competent and timely delivery of dental care within the bounds of clinical circumstances as presented by the patient such as needs, desires and values) is paramount and takes precedence above all else. This also includes the obligation to a) identify and report perioral signs of abuse and neglect and to consult with faculty to report suspected cases to proper authorities as required by law; and, b) report instances of faulty treatment whether intentional or not, to the appropriate faculty member.

f. That all people including patients, staff, faculty and all other individuals are treated fairly, respectfully, and without prejudice.

g. All standards and requirements of patient care established by the School of Dentistry are followed.

3. Dental and dental hygiene students’ behavior must exemplify the highest moral and ethical standards. The following represents conduct that is incompatible with these standards:

a. Any behavior that tends to gain an unfair advantage for any student in an academic matter. This includes, but is not necessarily limited to, the following guidelines:

i. No student shall, during an examination have, use or solicit any unauthorized information or material (written or oral), copy from another student’s paper or discuss the examination with any other person.

ii. No student shall during an examination knowingly give any unauthorized aid to another student.

iii. No student shall acquire by any means knowledge of the contents of an examination yet to be given.

iv. No student shall fraudulently claim for credit any classroom, clinical, laboratory, or other procedure or assignment performed by an unauthorized person, including a fellow student.

Anyone who has reasonable cause to believe that a student has acted unethically is obligated to bring the matter to the attention of the Assistant Dean for Student Programs or his/her designee who will follow the process identified in the Preliminary Procedures section of the UMKC School of Dentistry Honor Council Due Process Procedures for Violations of the Standards of Professional Conduct, to determine whether there has been a violation and whether charges should be brought.

School of Law Honor Codes

I. Preamble

We, the students at the University of Missouri - Kansas City School of Law, recognizing that the recorded evaluation of our academic pursuits must reflect the products of intelligence guided by integrity, do hereby establish this Honor Code so that all who may inquire can be assured that our individual accomplishments were honestly achieved; and so all who achieve may welcome inquiry. Wherefore we pledge ourselves, each and all, to careers founded in integrity and to the enforcement of the standards herein defined. Each student shall have the affirmative duty of assisting in the implementation of this Code.

II. Definitions

1. Academic Matter:
   All examinations, writing assignments, and programs or activities (such as Moot Court, Law Review or Urban Lawyer) which in any manner affect or result in a Law School grade or satisfaction of a requirement for graduation.

2. Accused:
   Student who is the subject of a hearing on an Honor Code violation.

3. Class:
   Group of students, based on year in Law School and academic progress. For the purposes of this code, those who are in their post third-year or are working on advanced degrees, shall be deemed third-year students.

4. Gender:
   Any use of grammatical gender reference shall be interpreted as applying equally to males and females.

5. Matter Relating to Academic Credentials:
   Any representation made to any person concerning academic achievements or performance in Law School sponsored programs affecting a requirement for graduation.

6. SBA President:
   President of the Student Bar Association.

7. Student:
   A student (as defined in 200.020.B.8. of the University’s Collected Rules and Regulations) at the University of Missouri-Kansas City School of Law.

8. Unauthorized Sources:
   All written material and persons except as otherwise authorized by the instructor.

III. Violations

1. Jurisdiction:
Any conduct by a student that tends to gain or give an unfair advantage for any student in any academic matter or in any matter relating to academic credentials is considered unethical and a violation of the Code. It shall not be necessary for the Prosecutor to prove that any advantage was, in fact, achieved. Any conduct by a student impeding the fair operation of this Code is also a violation of this Code.

2. Specific Violations:
   Prohibitions of the Code include, but are not limited to, the following:
   • During an examination, no student shall have, consult, give to another, receive from another, or solicit from another any information or material unless specifically authorized by the instructor.
   • No student shall knowingly convey, directly or indirectly, to another student any information about the contents of an examination that the other student has yet to take.
   • No student, with the intent to improve his or her grade, shall convey to an instructor any information that tends to identify his or her authorship of an examination yet to be graded.
   • No student shall work on his or her examination other than during the time prescribed, nor in a room other than one designated for the taking of the examination.
   • For any assignment that counts toward a grade or is required for graduation, no student shall consult unauthorized sources of information.
   • No student shall remove or withhold library material from the library, or secrete such material in the library, or destroy or mutilate such material, or use such material in a manner calculated to gain an unfair advantage for either him or herself or another student in connection with any academic matter.
   • No student shall make any false representation on a resume, transcript or other written material relating to his or her Law School credentials. Nor may any student falsely represent his or her Law School credentials in any other way to a potential employer or academic institution.
   • No student shall plagiarize. Violation of the plagiarism policy adopted by the faculty of the Law School on October 22, 1990 is a violation of the Code. A statement of the offense and definition of plagiarism is incorporated in this Code by reference and linked to this Code at the following Web address: http://law.umkc.edu/pdfs/plagiarism-policy-and-guidelines.pdf
   • No student other than the accused shall fail to report a suspected violation of this Code or fail to give information about such violation, testify, or attend hearings authorized by the Code, except for good cause shown.
   • No student witness shall fail to appear at a hearing held under the Code, unless good cause exists.
   • No student shall improperly induce a person not to comply with this Code.
   • No student shall fail to use best efforts in the performance of his or her duty under this Code.

3. Mens Rea:
   Unless otherwise specifically stated in this Code, a student is not guilty of a violation unless he or she acted knowingly or recklessly with respect to each material element of the violation.

4. Specific Exclusions:
   The Code does not cover:
   • Infractions of rules limiting smoking, soft drinks and coffee, etc., to certain designated examination rooms.
   • Disciplinary matters not related to academic credentials or academic matters. The University of Missouri Standards of Conduct details these matters not covered by this Honor Code.

IV. Honor Court and Prosecutor
   .01 Honor Court. There shall be a body known as the Honor Court composed of a Chief Justice and four Associate Justices. The Chief Justice shall be selected by a majority vote of the entire Court to serve at the pleasure of the Court.

   The Honor Court shall hear all cases involving alleged violations of this Code by students, excepting those cases disposed of informally per 6.03. The proper Court to hear a charge shall be the Court sitting at the time of the hearing rather than at the time of the violation. The Court shall also make advisory opinions.

   Four (4) Justices shall constitute a quorum. Each of the justices shall have one (1) vote. The Chief Justice shall be entitled to vote on all matters before the Court.

   The Chief Justice, or his or her designee, shall inform new students of this Code during orientation. A copy of the Code shall be published in each edition of the Law School Student Handbook and available in the law building in the Dean’s office.

   .02 Student Prosecutor. There shall be a Student Prosecutor and an Assistant Student Prosecutor. The Prosecutor shall conduct investigations and present the case against the accused. The Student Prosecutor shall not make plea agreements at any time.

V. Appointments and Qualifications
   .01 General. The Justices of the court shall be two third-year students, two second-year students and one first-year student. There shall be alternate justices in the same number and composition.

   The Student Prosecutor shall be a third-year student. The Assistant Student Prosecutor shall be a second-year student.
.02 Appointment and Term of Office:

1. Justices. One first-year justice, one first-year alternate justice, one second-year justice, and one second-year alternate justice will be selected by the SBA President on the basis of applications submitted to him or her. The selection will be made at the first SBA meeting of the fall semester that includes the first-year representatives.

   Justices will serve three one-year terms unless they resign, graduate, are removed for cause or become otherwise ineligible. Justices who graduate may serve until the first-year justices are appointed.

   Justices seated at the time this Code becomes effective are deemed to have been appointed in accordance with this section.

2. Prosecutor. The student prosecutor shall be the person who was the assistant student prosecutor during the previous academic year, provided, however, that if that person is no longer eligible, the SBA President shall select a student prosecutor. The selection of the assistant student prosecutor shall be made by the SBA President before the end of winter semester classes. Selections shall be made on the basis of the designee's class for the following year.

   The Prosecutor's term of office shall begin on the first day of the summer session, provided, however, that cases arising before or during the winter semester final examination period shall be conducted by winter semester office-holders.

.03 Forfeiture of Office for Cause. A student is ineligible to continue as a Justice, Prosecutor or an alternate if he or she is placed on academic or disciplinary probation, or if for any other reason his or her continuation in office may not be in the best interest of the School of Law as determined by the Board of Governors.

.04 Disqualified from Duty. Justices or Prosecutors shall disqualify themselves from performing their duties when they feel that they cannot impartially perform those duties. The accused can raise or suggest grounds for such disqualification of a justice. The failure of Justices to disqualify themselves may be raised on appeal as a possible abuse of discretion.

Disqualification of a Justice or Prosecutor creates a temporary vacancy and shall be filled pursuant to 5.05(b).

.05 Vacancies.

1. Permanent Vacancies. If by graduation, or for any other reason, a permanent vacancy occurs during a normal term of office, such vacancy shall be filled in a manner consistent with 5.01. If for any reason a vacancy is not filled when needed, it may be treated as a temporary vacancy and filled as prescribed. 5.05(b).

2. Temporary Vacancies. Vacancies that are created when a student is unavailable, disqualifies him or herself or the Court sustains a challenge for cause, shall be filled by the SBA President who shall ask the alternate from the same class to serve. If the alternate is not available, the SBA President shall select another member of the class who is not ineligible to serve.

IV. Violation and Investigation Reports

.01 Reports Made. Any person may report a suspected violation of the Honor Code. Reports may be made to either the SBA President or to the Associate Dean.

If reported to the SBA President, the SBA President shall notify the Associate Dean of the report of a suspected violation as soon as possible.

.02 When Made. Reports of suspected Honor Code violations must be made within 45 days of the discovery of the suspected violation.

.03 Informal Disposition or Submission of Case to Student Prosecutor. The Associate Dean shall have the authority to investigate the reported suspected violation of the Honor Code before initiating formal disciplinary procedures and give the student the opportunity to present his/her personal version of the incident or occurrence. After doing so, the Associate Dean may, for good cause shown, informally dispose of the case, and, after explaining to the student the various options available, shall fix a reasonable time within which the student suspected to have violated the Honor Code shall accept or reject a proposed informal disposition. If no informal disposition is deemed appropriate by the Associate Dean or the student rejects a proposed informal disposition, the Associate Dean shall notify the student prosecutor of the report of a suspected violation of the Honor Code. Should the Prosecutor disqualify him or herself pursuant to 5.04, the SBA President shall fill the temporary vacancy pursuant to 5.05(b). Any statements made by the student suspected of violating the Honor Code to the Associate Dean in the course of the informal disposition process shall not be communicated to the student prosecutor or be admissible against the student in subsequent Honor Court proceedings.

.04 Investigation by the Prosecutor. Upon notification by the Associate Dean of the report of a suspected violation of the Honor Code, the Prosecutor shall conduct an investigation.

Any student called upon to supply information relevant to the investigation, other than the accused, shall comply as fully as possible.

At the completion of the investigation, if the Prosecutor feels the evidence is insufficient to justify prosecution.

The Prosecutor shall so notify the SBA President and the Associate Dean, and with their concurrence the case may be dropped.

If the Prosecutor determines that probable cause exists to prosecute a person for a violation of the Honor Code, he or she shall send notice of this finding to the Associate Dean of the Law School.
.05 Submission of Case to Grand Jury.

1. Upon notice that the Prosecutor has determined that probable cause exists to prosecute a person for a violation of the Honor Code, the Associate Dean shall convene a grand jury hearing.

2. The Associate Dean shall select six names at random from the Law School student body. The Associate Dean shall summon the people selected to attend a meeting with himself and the SBA President. At this meeting the Associate Dean shall inform the students selected that the first three qualified students selected will be required to serve on a grand jury to determine whether or not probable cause exists to believe the Honor Code has been violated. The Associate Dean may excuse any grand juror for cause and replace that grand juror with an alternate. The Associate Dean shall inform the grand jury of their membership on the grand jury and all grand jury proceedings are confidential. The SBA President and the grand jurors shall select a date, time and place for the grand jury proceeding, providing that the selection of such a date will not unreasonably delay the Honor Court proceedings. The SBA President shall inform the Chief Justice and the Prosecutor of the date of the hearing.

3. The Prosecutor shall have the duty of providing the Chief Justice with a copy of the items of evidence that form the basis for his or her determination that probable cause exists to prosecute for a violation of this Honor Code. The copies provided by the Prosecutor to the Chief Justice shall all have identifying characteristics removed except as necessary to establish probable cause that a violation of this Code has been committed. The Prosecutor shall place a copy of these items of evidence and a summary of why he or she believes probable cause exists in a signed and sealed envelope. The envelope of evidence shall be delivered to the Chief Justice before the grand jury proceeding. If the suspected violation is plagiarism, the Prosecutor shall provide the Chief Justice with the original sources that the grand jury needs to adequately evaluate the evidence provided in the packet. The Chief Justice shall make arrangements to provide the grand jury with the source material. This packet shall also contain a form for the grand jury to report its findings.

The investigative power of the grand jury is strictly limited to the evidence presented by the Prosecutor. The grand jury shall not independently investigate the matter. The grand jury may submit written questions to the prosecutor through the Chief Justice.

4. The Chief Justice of the Honor Court will initiate the grand jury proceeding by informing the grand jury that the grand jury proceedings are to be confidential. The Chief Justice should elicit from the grand jurors signed statements that the grand jurors understand fully the duty of confidentiality. The Chief Justice shall advise the students that the information presented to the grand jury will be known only to the student prosecutor and themselves and that a breach of confidentiality may be an Honor Code violation.

5. After the Chief Justice has fulfilled the obligations imposed by section (d), he or she should give the grand jury the sealed envelope provided by the Prosecutor containing the evidence and remove him or herself from the grand jury proceedings.

6. After the Chief Justice has left the grand jury room, the grand jury will break the seal on the evidence envelope and examine the contents. The grand jury shall examine the evidence and determine whether probable cause exists for finding a violation of this Code. A decision shall be made within a reasonable period of time, not to exceed ten (10) days.

7. The finding of probable cause or the lack of probable cause will be determined by a majority vote of the grand jurors. This vote is binding on all members of the grand jury.

8. After the grand jury has reached a decision, it shall record that decision on the form provided for such purpose in the envelope described in 6.04(c) and sign it. The evidence shall be returned to the envelope provided by the Prosecutor, sealed, and signed. The envelope shall be delivered to the Chief Justice in a place and manner prescribed by the Chief Justice.

9. The Chief Justice shall deliver the envelope with the grand jury finding to the Associate Dean. The Associate Dean shall break the seal on the envelope in the presence of the Prosecutor who shall verify that the envelope contains all the items of evidence the Prosecutor originally placed in the envelope.

10. The Associate Dean shall reveal the finding of the grand jury only in furtherance of the procedures of this Honor Code and then only to the necessary parties.

.06 Hearing Date and Notice. A hearing shall be held as soon as possible after the grand jury has determined that there is probable cause to believe the accused has violated the Honor Code. In no case shall more than 45 days elapse between the suspected violation report and the hearing, unless a later date is agreed upon by the Prosecutor and the student charged.

The student shall be notified of a hearing in writing by the Chief Justice. The notice shall set forth the date, time and place of the alleged violation, the conduct to be inquired into, and the date, time, and place of hearing before the Honor Court. The notice shall be given at least seven (7) days in advance of the scheduled date of the hearing, unless a shorter time be fixed for good cause.

VII. Hearing Procedure

.01 Confidentiality. Honor Court hearings shall be closed to the public unless the accused requests a public hearing, in which case one shall be provided. An audio recording shall be made of the proceeding and shall become part of the record.

.02 Ex Parte Communication. Except as to procedural matters, there shall be no ex parte communication with any Justice by the Prosecutor, by defense counsel or by the accused.

.03 Pre-Trial Motions. All pre-trial motions, including motions in limine, shall be in writing and given to the Chief Justice at least four days prior to the hearing. The Court may set a time limit on hearing pre-trial motions. The Court shall hear pre-trial motions no later than the day before the trial.
.04 Evidence. A student defendant or prosecutor appearing before the Honor Court shall have the right to present any evidence by witness or affidavit relating to any charge or defense. The formal rules of evidence shall not apply and the Court may consider relevant testimony of witnesses, affidavits, written reports, and any other relevant evidence.

.05 Witnesses. At least two (2) days in advance of the scheduled date of the hearing, witnesses shall be notified by the party calling them of their obligation to appear. Witnesses shall bring with them whatever documentation is requested. Failure of a student witness to appear, without good cause, is a violation of this Code.

The Prosecutor may not call the defendant as a witness. The defendant may elect to testify or not, as he or she chooses. No unfavorable inference may be drawn should the defendant choose not to testify.

.06 The Court. The Chief Justice shall preside at the hearing. The Prosecutor shall present the case against the accused. The accused may represent him or herself or may be represented by an advisor or legal counsel.

.07 The Hearing. The Prosecutor shall make an opening statement and present the evidence against the accused. The Accused or his or her representative may elect to make an opening statement either at the conclusion of the Prosecutor’s opening or after the Prosecution’s evidence has been presented. At the conclusion of the Prosecution’s case-in-chief, the accused may present his or her evidence.

Each party shall have the right to cross-examine the opposing party’s witnesses. Either party may present further rebuttal evidence when, in the discretion of the Chief Justice such evidence is relevant and will not unduly delay the proceedings. After all evidence has been presented, the Prosecutor may make a closing argument, if so elected, the Prosecutor may present a rebuttal.

.08 Court’s Decision. The Court shall promptly deliberate and make its findings and determinations in executive session. If seventy-five percent (75%) of the members of the court find by clear and convincing evidence that the accused has committed the violations charged, it shall recommend to the Dean one or more of the sanctions prescribed in 8.02, subject to the mitigating circumstances exception in 8.03.

If at all possible, the Court shall render a decision immediately following its deliberations. In no event shall its decision be announced later than three (3) days following the conclusion of the hearing. An oral presentation of the Court’s findings and recommendations is permitted following the hearing, but a written report including findings of facts, conclusions and recommended disposition shall be filed within one week after conclusion of the hearing. Concurs or dissenting opinions may be filed according to the same terms.

The report of the Court, including any concurring or dissenting opinions, and the entire record of the proceedings shall be submitted to the Dean and the accused as soon as possible after issuance.

.09 Procedural Questions. Procedural questions arising during the course of proceedings that are not covered by these rules shall be resolved by the Chief Justice. All objections concerning procedure shall be made/raised in writing to the Chief Justice. The Chief Justice shall answer all objections in writing and forward both the objection and the decision to both the Prosecutor and defense counsel and to all other justices sitting on the Court for that hearing.

The decision of the Chief Justice on a procedural question may be challenged by the accused, the prosecutor, or a sitting member of the Court. The Chief Justice shall present any challenge to the sitting Court and the ruling of the majority of the Court shall be final. There shall be a form, prepared by the Chief Justice, for appealing a procedural decision. The party challenging the decision shall complete the form and forward a copy to all other justices sitting on the Court for that hearing.

The decision of the Chief Justice on a procedural question may be challenged by the accused, the prosecutor, or a sitting member of the Court. The Chief Justice shall present any challenge to the sitting Court and the ruling of the majority of the Court shall be final. There shall be a form, prepared by the Chief Justice, for appealing a procedural decision. The party challenging the decision shall complete the form and forward a copy to all other justices sitting on the Court for that hearing.

.10 Review of Record by Dean. Upon receipt of the Court’s report, the Dean will, within a reasonable amount of time, review the entire record, including the Court’s findings of facts, conclusions and recommendations and render a decision in the case.

The Dean may remand for further consideration of specific issues. A decision by the Dean to remand shall include a list of questions for the Court. The Court shall then respond in writing within fourteen (14) calendar days. The Dean may not reverse a finding of not guilty by the Court.

The Dean’s decision shall be transmitted in writing to the accused and to the Chief Justice of the Honor Court. Where the accused has been found guilty by the Court, a copy of the Dean’s decision will be placed in the student’s official file.

VIII. Sanctions

.01 Report of Misconduct. Where a finding that the accused has violated the Code has been made, the misconduct may be called to the attention of the proper University authorities, Bar authorities or any other affected parties for appropriate action.

.02 Sanctions. The following sanctions may be recommended by the Court to the Dean and imposed by the Dean:

1. Expulsion. Permanent separation of the student from the School of Law.
2. Dismissal. An involuntary separation of the student from the School of Law. It does not imply or state a minimum separation time.
3. Suspension. Separation of the student from the School of Law for a definite period of time, after which the student is eligible to return. Conditions for re-admission may be specified.
4. Probation. Disciplinary probation, subject to any appropriate terms or conditions.
5. Reprimand. Written or oral reprimand.

0.3 Mitigating Circumstances. When considering a recommended sanction upon finding that a violation has occurred, the Court may consider mitigating circumstances such as, but not limited to, any physical, mental, financial, or emotional problems of the accused. If the severity of mitigating circumstances requires, the Court may recommend no sanction be levied on the accused, even though a violation has occurred.

If the Court considers mitigating circumstances when recommending a sanction, the written report of the Court shall include a full explanation thereof.

IX. Appeals

0.1 Right to Petition for Review (other than dismissal or suspension). In all cases where the discipline imposed by the Dean is other than dismissal or suspension, the accused may petition the Chancellor in writing for a review of the decision within ten (10) consecutive calendar days after notification. A copy of the Petition for Review must also be served upon the Dean within such time. The Petition for Review shall state the grounds or reasons for review, and the Dean may answer the petition within ten (10) consecutive calendar days if he or she so desires.

The Chancellor or his or her designated representative may grant or refuse the right of review. In all cases where the Petition for Review is refused, the decision shall be final. If the Chancellor or representative reviews the decision, the action of the Chancellor shall be final unless it be to remand the matter for further proceedings.

0.2 Right of Appeal (dismissal or suspension only). When a student is dismissed or suspended from the University for an Honor Code violation by the Dean, the student may appeal such decision to the Chancellor within twenty (20) consecutive days after notification of the decision of the Dean. A copy of the notice of appeal will contemporaneously be given by the student to the Dean. The student may file a written memorandum for consideration by the Chancellor with the notice of appeal, and the Chancellor may request a reply to such memorandum by the appropriate party. The Chancellor or his/her designee shall review the full record of the case and the appeal documents and may affirm, reverse, or remand the case for further proceedings and shall notify the Dean and the student in writing of the decision on the appeal. The action of the Chancellor shall be final unless it be to remand the matter for further proceedings.

0.3 Status During Appeal. In the cases of suspension or dismissal where a notice of appeal is filed within the required time, a student may petition the Chancellor in writing for permission to attend classes pending final determination of appeal. The Chancellor may permit a student to continue in school under such conditions as may be designated pending completion of appellate procedures, provided such continuance will not seriously disrupt the University or constitute a danger to the health, safety or welfare of the University community. In such event, however, any final disciplinary action imposed shall be effective from the date of the action of the Dean.

X. Advisory Opinions

0.1 When required to do so, the Court may render advisory opinions on matters relating to the application of the Code.

0.2 A box shall be located in a public area of the Law School for the purpose of receiving written requests by students of the Law School for advisory opinions.

0.3 The Honor Court shall submit its advisory opinion, in writing, to the Dean and the SBA President.

0.4 The Dean, within a reasonable time, shall respond to the advisory opinion.

0.5 The advisory opinion and the Dean’s response shall be appropriately posted and made available to the students in the library.

0.6 Conduct consistent with an advisory opinion shall be presumed not to be in violation of the Code.

XI. Amendments

0.1 Amendments to the Honor Code may be proposed by petition of any ten (10) students, by the Board of Governors of the Student Bar Association on its own motion, or by petition of a majority of the Honor Court.

0.2 A proposed amendment shall be adopted if at the adoption election at least two-thirds (2/3) of the students voting shall vote favoring the proposed amendment.

XII. Adoption

This Honor Code shall be in effect when approved by a two-thirds vote of the students voting, by the Dean of the School of Law, the Chancellor, and by the Board of Curators.

School of Medicine Honor Codes

Standards of Professional Conduct and Honor Council Procedures

STANDARDS OF PROFESSIONAL CONDUCT
I. Preamble

Patient care professionals are characterized by 1) a prolonged specialized training in a body of knowledge and skills; 2) ethical principles; 3) a service orientation; and 4) judgment. These professions determine their own standards of education, training, licensure, and practice and have long subscribed to a body of ethical statements developed primarily for the benefit of the patient. As a potential future member of these professions, a student must recognize responsibility and an obligation not only to patients, but also to society, other health professionals, and self to behave in a manner compatible with the medical profession's standards of conduct.

One of the goals of a medical school is to educate a student during the transition to a professional life. The University of Missouri-Kansas City School of Medicine has an obligation to evaluate our students pursuing the M.D. and other patient care related degrees administered by the School of Medicine as thoroughly as possible for their cognitive abilities, their academic and professional knowledge and skills, their integrity, and their suitability for the practice of medicine. Accordingly, the Standards of Professional Conduct detailed in this document have been developed to guide the pre-professional behavior of students in patient care degree programs of the University of Missouri-Kansas City School of Medicine and to prepare the students to meet the ethical standards of these medical professions.

II. Standards of Professional Conduct

A. Professional Integrity

1. Honesty

A student shall deal honestly with people including, but not limited to, colleagues, instructors, representatives of the University, patients, attending physicians, and other members of the health care team. Students are expected to demonstrate honesty and integrity in all aspects of their interaction with patients and staff — particularly in assuring accuracy and completeness of their part of the medical record. The student shall be willing to admit errors and must not mislead others or promote himself/herself at the patient's expense. The student shall strive to report, by utilizing the Honor Council Procedures for Violations of the Standards of Professional Conduct, those students deficient in character or competence, or who engage in fraud or deception.

The basic principle underlying all research is honesty. Scientists and students who participate in research have a responsibility to provide research results of the highest quality; to gather facts meticulously; to keep impeccable records of work done; to interpret results realistically, not forcing them into preconceived molds or models; and to report new knowledge through appropriate channels. Co-authors of research reports must be sufficiently acquainted with the work of their co-workers that they can personally vouch for the integrity of the study and validity of the findings, and must have been active in the research itself.

In all cases of academic dishonesty, the instructor shall make an academic judgment about the student's grade on that work and in that course. The instructor shall report the alleged academic dishonesty to the Chair of the Honor Council.

Examples of academic dishonesty include, but are not limited to, the following:

**Cheating** — 1) use of any unauthorized assistance in taking quizzes, tests, or examinations; 2) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; or 3) acquisition or possession without permission of tests or other academic material belonging to a member of the University faculty or staff; 4) in any way giving assistance to others who are participating in any of the three preceding types of behavior; or, 5) falsifying attendance records or other official documents.

**Plagiarism** — 1) use by paraphrase or direct quotation of the published or unpublished work of another person without fully and properly crediting the author with footnotes, citations or bibliographical reference; 2) unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials; or 3) unacknowledged use of original work/material that has been produced through collaboration with others without release in writing from collaborators.

The detection may involve the use of commercially available software.

**Sabotage** — unauthorized interference with, modification of, or destruction of the work or intellectual property of another member of the University community.

Examples of dishonesty related to clinical practice include, but are not limited to, the following:

**Falsification of Patient's Medical Record** — writing progress notes regarding the patient’s status, including, but not limited to, clinical observations or results in the patient's chart when the student has not seen or evaluated the patient, or using incorrect times of data entry.

**Falsification of Patient's Medical Information** — reporting medical information such as physical examination findings, lab values, test results, and any other relevant patient information to other students, residents, attending physicians, the patient, the patient’s family, or other relevant medical personnel that has been fabricated by the student.
2. Responsibility

A student must acquire competencies with the appropriate concepts, knowledge, and skills which the faculty determines to be essential. These competencies shall be utilized to care for the sick and to promote the health and welfare of society. A student shall recognize a responsibility to participate in activities contributing to an improved community.

Students in the care of patients must not be harmful, dangerous, or negligent to the mental or physical health of a patient or the public. Negligent means the failure to use that degree of skill and learning ordinarily used under the same or similar circumstances by other students.

Students must pay tuition and other University fees, such as the medical equipment or disability fees, on time. Students must complete required forms of evaluation, degree forms, examination applications, etc. on time.

Students must be familiar with and follow the rules and regulations of the School of Medicine, the University, and related professional organizations.

B. Medical Professional Behavior

1. Nondiscrimination

A student shall be dedicated to providing supervised competent medical service with compassion, respect for human dignity, and without discrimination.

It is against University regulations to discriminate on the race, color, religion, sex, sexual orientation, national origin, age, disability and status as a Vietnam era veteran. The University has an AIDS policy statement consistent with state law that prohibits discrimination against persons with AIDS or who are HIV positive.

2. Representation

A student shall accurately represent himself/herself to others including, but not limited to, colleagues, instructors, representatives of the University, patients, attending physicians, and other members of the health care team.

Examples of misrepresentation include, but are not limited to, the following:

(a) A student shall never use the title of “Doctor” or M.D., as this clearly misrepresents the student’s position, knowledge, and authority.

(b) Use of fraud, deception, lies, or bribery in securing any certificate of registration or authority, diploma, permit or license issued, or in obtaining permission to take any examinations.

(c) Impersonation of any person holding a certificate of registration or authority, permit, license or allowing any person to use his/her certificate of registration or authority, permit, license, or diploma from any school.

(d) Forgery, alteration, or misuse of a patient’s medical records or knowingly furnishing false information to the medical team and/or professional organizations.

3. Confidentiality

A student shall respect the rights of patients, colleagues, and other health professionals, and shall safeguard patient confidences within the constraints of the law. The patient’s right to confidentiality in regard to his/her medical record, which includes confidentiality of personal and social history, is a fundamental tenet to medical care.

The discussion in public of the problems of an identified patient, without the patient’s permission, by professional staff (including students) violates patient confidentiality and is unethical. Under no circumstances can any medical record be removed from the institution. Photocopying of the entire record is never permitted for presentations or rounds; students are permitted to extract information, but not copy “wholesale” parts of the chart. Names of patients should be omitted from any documents used for these presentations.

4. Disclosure

While the student is a member of the medical team and under faculty supervision, a student shall continue to study, apply, and advance scientific knowledge, make relevant information available to patients, colleagues, and the public, obtain consultation, and use the talents of other health professionals when indicated.

Sharing of medical information appropriately with a patient and colleagues involved in the care of the patient is a fundamental ethical requirement. The patient must be well informed to make health care decisions and work intelligently in partnership with the medical team. Information that the patient needs for decision making shall be presented in terms the patient can understand. If, for some reason, the patient is unable to comprehend, there shall be disclosure to the patient’s authorized representative.
Failure of a student to share medical information relevant to a patient with the patient and colleagues involved in the care of the patient is unethical. Providing inaccurate information with these individuals is also unacceptable.

5. Assessment of Personal Competence (Self-Evaluation)

Students shall seek consultation and supervision whenever their ability to play their role in the care for a patient is inadequate because of lack of knowledge or experience.

Students are expected to respond to constructive criticism by appropriate modification of behavior.

It is unacceptable for a student to attempt procedures or to prescribe therapies without supervision.

6. Professional Demeanor

The student is expected to be thoughtful and professional when interacting with patients and their families, attending physicians, supervising residents, and other students, and whenever his/her behavior may influence adversely the judgments of others about the professional school or University.

Students shall maintain a neat and clean appearance, and dress in attire that is generally accepted as professional by the patient populations served.

Inappropriate behavior includes, but is not limited to, the use of offensive language, gestures, or remarks. Attempting, directly or indirectly, by way of intimidation, coercion or deception, to obtain or retain a patient or discourage the use of a second opinion or consultation is not appropriate.

7. Informed Consent

Students are to understand the physician’s obligation to obtain informed consent from patients, but are not responsible for obtaining it for a physician. Simply, it is the physician’s responsibility to ensure that the patient or his/her surrogate be appropriately informed as to the nature of the patient’s medical condition, the objectives of proposed treatments, treatment alternatives, and risks involved. The patient’s or surrogate’s concurrence must be obtained without coercion.

8. Conflict of Interests

If a conflict of interest arises, the moral principle is clear — the welfare of the patient must be, at all times, paramount. For example, gifts, hospitality, or subsidies offered by manufacturers and distributors of medical and pharmaceutical equipment/goods shall not be accepted if acceptance would influence the objectivity of clinical judgment.

9. Misconduct with Patients

The student will not engage in romantic, sexual, or other non-professional behaviors with a patient — even upon the apparent request of a patient — while the student is involved with the patient’s care.

10. Impairment

The student will not use alcohol or drugs in ways that impair his/her ability to perform the work of the profession or results in compromised patient care. It is the responsibility of every student to strive to protect the public from an impaired colleague and to assist that colleague whose capability is impaired because of alcohol or drug use.

11. Criticism of Colleagues

Professional relations among all members of the medical community shall be marked by civility. Scholarly contributions shall be acknowledged and each person shall recognize and facilitate the contributions of others to this community; slanderous comments and acts are not acceptable. Students shall deal with professional, staff, and peer members of the health team in a considerate manner and with a spirit of cooperation.

It is unethical and harmful for a student to disparage, without sufficient evidence, the professional competence, knowledge, qualifications, or services of a colleague to anyone. It is also unethical to imply without reliable evidence — by word, gesture, or deed — that a patient has been poorly managed or mistreated by a colleague.

12. Teaching

The word “doctor” (for the Latin “docere” — to teach) implies a responsibility to share knowledge and information with colleagues and patients. It is incumbent upon those entering this profession to teach what they know of the science, art, and ethics of medicine. It includes communicating clearly and teaching patients so that they are properly prepared to participate in their own care and in the maintenance of their health.
III. The University of Missouri Student Conduct Code

In addition to the conduct detailed in the preceding sections, a student is subject to the University of Missouri Student Conduct Code, as administered by the UMKC Office of the Vice Chancellor for Student Affairs, except for provisions dealing with academic dishonesty, in Section 200.010 B.1. of the Collected Rules and Regulations of the University (http://www.umsystem.edu/ums/rules/collected_rules/programs/ch200/200.010_standard_of_conduct).

As of the date of this document, such conduct falls into the following categories, and is provided for the convenience of patient care professional students at the University of Missouri School of Medicine:

1. **Academic dishonesty**, such as cheating, plagiarism, or sabotage. The Board of Curators recognizes that academic honesty is essential for the intellectual life of the University. Faculty members have a special obligation to expect high standards of academic honesty in all student work. Students have a special obligation to adhere to such standards. In all cases of academic dishonesty, the instructor shall make an academic judgment about the student’s grade on that work and in that course. The instructor shall report the alleged academic dishonesty to the Primary Administrative Officer. (see section II.A.1. Honesty above)

2. **Forgery, alteration, or misuse of University documents, records or identification, or knowingly furnishing false information to the University.**

3. **Obstruction or disruption of teaching, research, administration, conduct proceedings, or other University activities, including its public service functions on or off campus.**

4. **Physical abuse or other conduct which threatens or endangers the health or safety of any person.**

5. **Stalking** another by following or engaging in a course of conduct with no legitimate purpose that puts another person reasonably in fear for his or her safety or would cause a reasonable person under the circumstances to be frightened, intimidated or emotionally distressed.

6. **Violation of the University’s Equal Employment/Education Opportunity Policy** located at Section 320.010 of the Collected Rules and Regulations. These violations include, but are not limited to:
   a. **Harassment.** Harassment in violation of the University’s antidiscrimination policies, is unwelcome verbal or physical conduct, on the basis of actual or perceived membership in a protected class as defined in the University’s anti-discrimination policies, that creates a hostile environment by being sufficiently severe or pervasive and objectively offensive that it interferes with, limits or denies the ability of an individual to participate in or benefit from educational programs or activities or employment access, benefits or opportunities.
   b. **Sex Discrimination, Sexual Harassment and Sexual Misconduct** as further defined in Section 600.020 and/or referenced in Section 200.010B7 below.
   c. **Bullying.** Bullying is defined as repeated and/or severe aggressive behavior likely to intimidate or intentionally hurt, control or diminish another person, physically or mentally on the basis of actual or perceived membership in a protected class.
   d. **Retaliation.** Retaliation is any adverse action taken against a person because of that person’s participation in protected activity. The University strictly prohibits retaliation against any person for making any good faith report or for filing, testifying, assisting, or participating in any investigation or proceeding involving allegations of discrimination in violation of the University’s Equal Employment/Education Opportunity Policy.
   e. **False Reporting.** False reporting is making an intentional false report or accusation as opposed to a report or accusation, which, even if erroneous, is made in good faith.

7. **Violation of the University’s Sex Discrimination, Sexual Harassment and Sexual Misconduct in Education/Employment Policy in Section 600.0020 of the Collected Rules and Regulations.** These violations include:
   a. **Sex Discrimination.** Sex discrimination occurs when a person has been treated inequitably on the basis of sex, gender identity, or gender expression. Specifically, the University of Missouri System upholds Title IX, which states in part that “[n]o person in the United States shall on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity.” Sexual harassment, sexual misconduct, sexual exploitation, stalking on the basis of sex and dating/intimate partner violence are forms of sex discrimination.
   b. **Sexual Harassment.** Sexual harassment is defined as:
      1. Unwelcome sexual advances or requests for sexual activity by a person or persons in a position of power or authority to another person, or
      2. Other unwelcome verbal or physical conduct of a sexual nature by a person to another person, when:
a) Submission to or rejection of such conduct is used explicitly or implicitly as a condition for academic or employment decisions; or

b) Such conduct creates a hostile environment by being sufficiently severe or pervasive and objectively offensive that it interferes with, limits or denies the ability of an individual to participate in or benefit from educational programs or activities or employment access, benefits or opportunities.

c. Sexual Misconduct. Sexual misconduct is: 1) nonconsensual sexual intercourse; 2) nonconsensual sexual contact involving the sexual touching of the genitals, breast or anus of another person or the nonconsensual sexual touching of another with one's own genitals whether directly or through the clothing; 3) exposing one's genitals to another under circumstances in which he or she should reasonably know that his or her conduct is likely to cause affront or alarm; or 4) sexual exploitation.

d. Stalking on the Basis of Sex. Stalking on the basis of sex is following or engaging in a course of conduct on the basis of sex with no legitimate purpose that puts another person reasonably in fear for his or her safety or would cause a reasonable person under the circumstances to be frightened, intimidated or emotionally distressed.

e. Dating/Intimate Partner Violence. Violence committed by a person who is or has been in a social relationship of a romantic or intimate nature with the recipient of the violent behavior.

f. Sexual Exploitation. Sexual exploitation occurs when one person takes nonconsensual or abusive sexual advantage of another person for his/her own advantage or benefit or for the advantage or benefit of anyone other than the person being exploited and which behavior does not constitute any other form of sexual misconduct. Examples of sexual exploitation include, but are not limited to, the following activities done without the consent of all participants:

1. Invasion of sexual privacy;
2. Prostituting another person;
3. Taping or recording of sexual activity;
4. Going beyond the boundaries of consent to sexual activity (letting your friends hide to watch you engaging in sexual activity);
5. Engaging in voyeurism;
6. Knowingly transmitting and STI, STD, venereal disease or HIV to another person;
7. Inducing another to expose their genitals.

g. Retaliation. Retaliation is any adverse action taken against a person because of that person’s participation in protected activity. The University strictly prohibits retaliation against any person for making a report required by Section 600.020 of the Collected Rules and Regulations, for making any good faith report to a Title IX Coordinator or for filing, testifying, assisting, or participating in any investigation or proceeding involving allegations of sex discrimination, sexual harassment or sexual misconduct.

h. False Reporting. False reporting is making an intentional false report or accusation as opposed to a report or accusation, which, even if erroneous, is made in good faith.

8. Threatening or Intimidating Behaviors, defined as written or verbal conduct that causes a reasonable expectation of injury to the health or safety of any person or damage to any property or implied threats or acts that cause a reasonable fear of harm in another.

9. Participating in attempted or actual theft of, damage to, or possession without permission of property of the University or of a member of the University community or of a campus visitor.

10. Unauthorized possession, duplication or use of keys to any University facilities or unauthorized entry to or use of University facilities.

11. Violation of University policies, rules or regulations or of campus regulations including, but not limited to, those governing residence in University-provided housing, or the use of University facilities, or the time, place and manner of public expression.

12. Manufacture, use, possession, sale or distribution of alcoholic beverages or any controlled substance without proper prescription or required license or as expressly permitted by law or University regulations, including operating a vehicle on University property, or on streets or roadways adjacent to and abutting a campus, under the influence of alcohol or a controlled substance as prohibited by law of the state of Missouri.
13. **Disruptive conduct.** Conduct that creates a substantial disruption of University operations including obstruction of teaching, research, administration, other University activities, and/or other authorized non-University activities that occur on campus.

14. **Failure to comply with directions of University officials acting in the performance of their duties.**

15. **The illegal or unauthorized possession or use of firearms, explosives, other weapons, or hazardous chemicals.**

16. **Hazing,** defined as an act that endangers the mental or physical health or safety of a student, or an act that is likely to cause physical or psychological harm to any person within the University community, or that destroys or removes public or private property, for the purpose of initiation, admission into, affiliation with, or as a condition for continued membership in a group or organization. Participation or cooperation by the person(s) being hazed does not excuse the violation. Failing to intervene to prevent (and/or) failing to discourage (and/or) failing to report those acts may also violate this policy.

17. **Misuse of computing resources in accordance with University policy,** including but not limited to:
   a. Actual or attempted theft or other abuse.
   b. Unauthorized entry into a file to use, read, or change the contents, or for any other purpose.
   c. Unauthorized transfer of a file.
   d. Unauthorized use of another individual's identification and password.
   e. Use of computing facilities to interfere with the work of another student, faculty member, or University official.
   f. Use of computing facilities to interfere with normal operation of the University computing system.
   g. Knowingly causing a computer virus to become installed in a computer system or file.

Details of current policies, procedures, sanctions, and due process for violations of the University of Missouri Student Conduct Code are found in http://www.umsystem.edu/ums/rules/collected_rules/programs/ch200/200.010_standard_of_conduct and http://www.umsystem.edu/ums/rules/collected_rules/programs/ch200/200.020_rules_of_procedures_in_student_conduct_matters and in the University of Missouri-Kansas City General Catalogue. Students should check and be familiar with these rules and procedures.

**HONOR COUNCIL PROCEDURES FOR VIOLATIONS OF THE STANDARDS OF PROFESSIONAL CONDUCT**

Approved by the University of Missouri Board of Curators: December 1994, Revised January 31, 2013

I. **Jurisdiction of the Honor Council**

The Honor Council shall be concerned with incidents of alleged violations by University of Missouri-Kansas City School of Medicine students enrolled in either the M.D. or graduate Professional programs involving direct patient care at the UMKC School of Medicine of the School's Standards of Professional Conduct, Sections II.A and II.B., whether such violations occur on the Volker campus or in classes or clinical experiences at affiliated hospitals and clinics through the UMKC Medical School. Violations of Section III will be referred to the Office of the Vice Chancellor for Student Affairs. The standards identify areas of conduct which are judged unacceptable for individuals either who are in or aspire to the profession of medicine. The Standards of Professional Conduct and Honor Council Procedures is a published document of the School of Medicine. It is distributed to all newly accepted students during orientation. When a student has been charged with one or more acts of misconduct according to these standards, the Honor Council shall adhere to the following procedures detailed herein. The Honor Council shall have the authority to recommend sanctions upon any student appearing before the Council. The disciplinary proceedings described are not to be construed as judicial trials. Care shall be taken, however, to comply as fully as possible with the spirit and intent of these procedural safeguards.

II. **Organization of the Honor Council**

A. **Composition**

The Honor Council voting members shall consist of the Chair representing the Dean's Office, six faculty/staff members (1 Docent, 1 Basic Scientist, 2 Clinical Scientists, 1 Humanities/Social Sciences representative, and 1 Graduate faculty member), and two student members (1 Years 3-6 and 1 graduate student). Four members constitute a quorum. Two nonvoting Honor Council staff, the Council Coordinator and the Administrative Assistant, assist the Chair in investigations and generation of reports and may be present at the hearings to take minutes.

B. **Eligibility and Appointment**

The Chair, faculty/staff, and student members shall be appointed to the Honor Council by the Dean of the School of Medicine.

C. **Chair**

The Chair shall count as one member of the Honor Council and shall be entitled to vote on all matters before the Council.
D. Time of Appointment and Term of Office

The Chair and faculty/staff members of the Honor Council shall serve for the duration of their appointments by the Dean. The student members of the Honor Council shall serve for one year.

A student is ineligible to continue as a member of the Honor Council if he/she is placed on academic or disciplinary probation, or if for any other reason his/her continued membership on the Council may not be in the best interest of the School of Medicine as determined by the Dean.

III. Procedures for Report of Violation, Investigation, Informal Disposition, and Notice

A. Report of Violation

An alleged violation of the Standards of Professional Conduct should be reported to the Chair or his/her designee of the Honor Council as soon as possible after discovery of the incident.

B. Preliminary Procedures and Investigation

The Chair of the Honor Council or his/her designee shall investigate any reported student misconduct before initiating formal conduct procedures. The reporter will be requested to meet with the Chair or his/her designee to discuss the alleged violation.

The Chair is responsible for notifying, in writing, the accused student of the charge brought against him/her prior to the commencement of the investigation. In addition, the student charged with misconduct shall receive a copy of these Procedures for Violations of the Standards of Professional Conduct along with the written notice. The Chair shall meet with the accused student to give the student the opportunity to present a personal version of the incident or occurrence.

C. Informal Disposition

After conducting an investigation, the Chair or his/her designee shall provide a written report to the Dean, the accused student, and the Honor Council members.

The Chair shall have the authority to dismiss a charge that is determined unfounded or to impose appropriate sanctions and shall fix a reasonable time within which the student shall accept or reject a proposed informal disposition.

A failure of the student either to accept or reject within the time fixed shall be deemed to be an acceptance and, in such event, the proposed disposition shall become final upon expiration of such time.

If the student rejects informal disposition, it must be in writing and shall be forwarded to the Honor Council.

The Chair may refer cases to the Honor Council for formal investigation and hearing without first offering informal disposition.

The Dean or his/her designee may at any time temporarily suspend or deny readmission to a student from the School of Medicine pending formal procedures when the Dean or his/her designee finds and believes from available information that the presence of a student on campus would seriously disrupt the School of Medicine or constitute a danger to the health, safety, or welfare of members of the School of Medicine community. The appropriate procedure to determine the future status of the student will be initiated within seven calendar days.

D. Notice of Hearing

Upon completion of the investigation, when a student rejects informal disposition or the charge justifies a formal hearing, in the judgment of the Honor Council Chair, the Chair will schedule a formal hearing as soon as possible.

The reporter, witnesses, and accused student will be given written notice of the hearing by email or personal delivery. The notice shall set forth the date, time, and place of the alleged violation, the conduct for inquiry, the date, time, and place of the hearing before the Council, request for attendance of the parties involved, and a reference for the accused student to the Rights of the Accused Student Upon Hearing which are outlined in these Procedures.

Notice by certified mail may be addressed to the mailing address currently on record with the university Failure by the accused student to have a current correct local address on record with the School of Medicine shall not be construed to invalidate such notice.

The notice shall be given at least seven (7) consecutive calendar days prior to the hearing, unless a shorter time is fixed by the Chair for good cause.

Any request for continuance shall be made in writing to the Chair who shall have the authority at his/her discretion to postpone the hearing if he/she determines the request is timely and made for good cause. The Chair shall notify the Honor Council members, the accused student, the reporter, the witnesses, and any other relevant individuals of the new date for the hearing.

If the accused student fails to appear at the scheduled time, the Honor Council may hear and determine the matter in the student’s absence.
IV. Procedure for Honor Council Hearing

A. Rights of the Honor Council

The Honor Council shall have the right to:

1. hear together cases involving more than one student which arise out of the same act of misconduct, but in that event shall make separate findings and determinations for each student;
2. permit a stipulation of facts by the Honor Council member who performed the investigation and the student involved;
3. permit the incorporation in the record by a reference of any document, affidavit, or other material produced and desired in the record by the School of Medicine or the student charged;
4. question witnesses or challenge other evidence introduced by either the School of Medicine or the student at any time;
5. hear from the Council Chair about dispositions made in similar cases and any dispositions offered to the student appearing before the Council;
6. call additional witnesses or require additional investigation;
7. dismiss any action at any time or permit informal disposition as otherwise provided;
8. permit or require at any time, within a reasonable time as determined by the Council, amendment of the Notice of Hearing to include new or additional matters which may come to the attention of the Council before final determination of the case; provided, however, that in such event the Council shall grant to the student or the School such time as the Council may determine reasonable under the circumstances to answer or explain such additional matters; and,
9. dismiss any person from the hearing who interferes with or obstructs the hearing or fails to abide by the rulings of the Council Chair on any procedural question or request of the Chair for order.

B. Rights of the Accused Student

A student scheduled to appear before the Honor Council pursuant to formal notice of charges and disciplinary hearing shall have the right to:

1. submit a written response to the charge outlined in the Notice before the scheduled hearing is to commence;
2. request in advance of the scheduled hearing a review of any materials contained in his/her hearing file;
3. submit a written request for the identities of witnesses to be called to testify before the Council;
4. be present at the hearing;
5. have an adviser or counselor appear with him/her and to consult with such an adviser or counselor during the hearing; however, the adviser/counselor will not be allowed to question witnesses and/or members of the Council;
6. hear or examine evidence presented to the Honor Council against him/her;
7. question witnesses present who are testifying against him/her at the hearing;
8. present evidence by witness, affidavit, written report, other memoranda, photographs, drawings, and any other relevant evidence of any defense the student desires;
9. make any statement to the Honor Council in mitigation or explanation of the conduct in question;
10. remain silent to avoid self-incrimination;
11. be informed in writing of the findings and any decisions imposed by the Honor Council, Coordinating Committee, and the Dean; and,
12. appeal the decision and/or disposition to the Chancellor, as herein provided.

C. Rights of Witnesses

Witnesses shall be notified of the scheduled time, date, and location of the hearing. Witnesses shall bring with them whatever documentation is requested. Failure of a student witness to appear, without good cause, is a violation of the Standards of Professional Conduct.

D. Record of Hearing

All proceedings of the Honor Council are to be held in the strictest confidence by the members and all other persons involved. The hearings shall be audio taped, and written minutes are also recorded. The notice, exhibits, hearing record, verdict, and disposition of the Honor Council shall
become the “Record of the Case”. This official document shall be filed under strictest security in the permanent records. The record shall be accessible at reasonable times and places to both the University and the student for the purposes of review or appeal.

E. Conduct of the Hearing

The Honor Council Chair shall preside at the hearing, call the hearing to order, call the roll of the Honor Council members in attendance, ascertain the presence or absence of the student charged with misconduct, read the Notice of Hearing and charge and verify the receipt of notice of charge by the student, report any continuances requested or granted, establish the presence of any adviser or counselor of the student, call to the attention of the student charged and the adviser any special or extraordinary procedures to be employed during the hearing, and permit the student to make suggestions of or objections to any procedures for the Honor Council to consider.

All requests to address the Council shall be addressed to the Chair. The Chair will rule on all requests and points of order and may consult with Council’s legal adviser prior to any ruling. The Chair’s ruling shall be final, and all participants shall abide thereby, unless the Chair shall present the question to the Council at the request of a member of the Council, in which event the ruling of the Council by majority vote shall be final.

Rules of common courtesy and decency shall be observed at all times. An adviser or counselor may be permitted to address the Council at the discretion of the Chair. An adviser or counselor may request clarification of a procedural matter or object on the basis of procedure at any time by addressing the Chair after recognition.

Opening Statements: 1) The Honor Council Chair or his/her designee shall make opening remarks outlining the general nature of the case and testify to any facts the investigation has revealed. 2) The accused student may make an opening statement to the Council about the charge at this time or at the conclusion of the School of Medicine’s presentation.

School of Medicine Evidence: 1) School of Medicine witnesses are to be called by the Chair of the Honor Council and identified or written reports of evidence are introduced as appropriate. 2) The Council may question witnesses at any time. 3) The student may question witnesses or examine evidence at the conclusion of the School of Medicine’s presentation.

Student Evidence: 1) The student shall have the opportunity to make a statement to the Honor Council about the charge. 2) The student may present evidence through witnesses or written memoranda. 3) The Council may question the student or witnesses at any time.

Rebuttal Evidence: The Honor Council may permit the School of Medicine or the student to offer a rebuttal of the other’s presentation.

If it appears that essential testimony is unavailable, or that for other good cause the hearing should be deferred, the Council may continue, recess, or discontinue the hearing without prejudice.

V. Determination of the Honor Council

Following the hearing, the Council shall promptly deliberate in closed session out of the presence of the student charged. Determination is to be made regarding both the validity of the misconduct charge and on the discipline, if any, to be imposed.

A. Violation of the Standards of Professional Conduct

The Honor Council shall determine if the evidence presented in the hearing supports the charge of violation of the Standards of Professional Conduct. The Council shall render a decision, by simple majority vote, of whether a violation has been committed by the accused. Each charge of misconduct, if there is more than one, shall be considered individually and/or collectively at the discretion of the Council.

B. Discipline Imposed

The Honor Council shall determine the discipline to be imposed, if any, based upon its deliberations. One of the following forms of discipline is to be recommended by means of simple majority vote of the Council members. Where there are multiple violations, there can be separate sanctions for each violation. The sanctions include, but are not limited to, the following:

No Disciplinary Action. Given when the student is not found in violation of the Standards of Professional Conduct.

Warning. A written reprimand to the student that the student has violated the Standards of Professional Conduct. A copy is to be placed in the student’s file.

Probation. A written reprimand to the student for violation of the Standards of Academic Conduct that includes a designated period of time, the probability of more severe sanctions if the student violates any institutional regulation(s) during the probationary period, and subject to any appropriate terms or conditions, such as loss of privileges, restitution, and discretionary assignments.

Suspension. An involuntary separation of the student from the School of Medicine for a specified period of time or until a special conditions have been met, with a statement whether suspension should relate back to the date of the offense, begin at the time imposed, or begin at a date specified in the future. At the conclusion of the period of suspension, the suspended student is automatically returned to student status. Conditions for readmission may be specified.
Dismissal. An involuntary separation from the School of Medicine for an indefinite period of time. The order of dismissal may specify a date before which the faculty will not consider a petition for readmission from the dismissed student.

Expulsion. Permanent separation of the student from the School of Medicine.

The above sanctions apply to the status of the accused student in the School of Medicine. Any sanction impacting a student's enrollment status and/or privileges will be forwarded to the Vice Chancellor for Student Affairs or designee for information purposes.

An oral presentation of the Council's findings and recommendations is permitted following the hearing, but a written document including findings of fact, verdict, and recommended disposition shall be completed as soon as possible after the hearing. This Final Report of the Council shall be submitted to the Coordinating Committee, the Dean, and the Office of the Vice Chancellor for Student Affairs.

VI. Decision of the Coordinating Committee
The findings and determination of the Honor Council serve as recommendations to the Coordinating Committee and to the Dean of the School of Medicine. The Coordinating Committee, chaired by the Associate Dean for Academic Affairs and composed of members detailed in The Academic Plan for the School of Medicine, reviews the charge of misconduct, the findings of fact, the decision of the Council, and the recommended discipline to be imposed from the Honor Council.

After deliberation and careful consideration, the Coordinating Committee approves, by simple majority vote, one of the following actions: 1) to sustain the recommendations of the Honor Council; 2) to amend the recommendations of the Honor Council to another type of sanction; 3) to remand the Honor Council's recommendations; or, 4) to reverse the Honor Council's recommendations.

The findings and determinations of the Honor Council and the Coordinating Committee shall be transmitted to the Dean in writing within seven (7) consecutive calendar days following the Coordinating Committee meeting. A copy of this recommendation shall also be transmitted to the accused student by email or personal delivery in the indicated time frame.

VII. Decision of the Dean
Upon receipt of the documents from the Honor Council and the Coordinating Committee, the Dean shall review the entire record that includes the following: 1) formal notice of the charges; 2) minutes of the Honor Council hearing; 3) written findings of the Honor Council and its recommendations to the Coordinating Committee; and 4) written decision of the Coordinating Committee concerning the sanction passed.

The Dean will, within a reasonable amount of time, make a decision to affirm, amend, or reverse the Coordinating Committee's sentence, or remand the Coordinating Committee for further proceedings.

The Dean shall notify the student in writing by certified mail or personal delivery of his/her final decision. Copies of the letter will be sent to the Honor Council Chair and the Coordinating Committee Chair, and will be placed in the student's file and in the official hearing file.

VIII. Right of Appeal
When a recommendation from the Honor Council and the Coordinating Committee is made for some form of disciplinary action other than "none", and this is upheld by the Dean, or if a recommendation of "no disciplinary action" is revised to one of greater severity by the Dean, the student may appeal such decision to the Chancellor or his/her designated representative by filing written notice of appeal with the Chancellor within ten (10) consecutive calendar days after notification of the decision of the Dean. A copy of the Notice of Appeal will also be given by the student to the Dean of the School of Medicine at the time of filing. The student may file a written memorandum for consideration by the Chancellor with the Notice of Appeal.

The Chancellor or his/her designated representative shall review the full record of the case and the appeal documents and may affirm, reverse, or remand the case for further proceedings and shall notify the Dean and the student in writing of the decision on the appeal. The action of the Chancellor shall be final unless it is to remand the matter for further proceedings.

Status during Appeal: In cases of suspension, dismissal, or expulsion where a Notice of Appeal is filed within the required time, a student may petition the Chancellor in writing for permission to attend classes pending final determination of appeal. The Chancellor may permit a student to continue in school under such conditions as may be designated pending completion of appellate procedures, provided such continuance will not disrupt the University or constitute a danger to the health, safety, or welfare of the University community. In such event, however, any final disciplinary action imposed shall be effective from the date of the action of the Dean.

IX. Status of the Standards of Professional Conduct
Amendments to the Standards of Professional Conduct and/or Honor Council Procedures for Violations may be proposed by petition of any twenty-five members of the student body, the Honor Council on its own motion, or the faculty.

A proposed amendment in the Standards of Professional Conduct and/or Honor Council Procedures for Violations must be approved by the Honor Council, the Coordinating Committee, the Dean, the Chancellor, and the Board of Curators.

The Standards of Professional Conduct and/or Honor Council Procedures for Violations may be terminated at any time by action under the general amending procedure.
All students in the School of Medicine, including students enrolled in either the M.D. or graduate Professional programs involving direct patient care at the UMKC School of Medicine are subject to the jurisdiction of the Standards of Professional Conduct and Honor Council Procedures for Violations upon enrollment. To insure their knowledge of the Standards of Professional Conduct and Honor Council Procedures for Violations, the presentation of these documents shall be an integral part of the orientation of newly accepted students in these programs to the School of Medicine.

School of Nursing Honor Codes

Honor Code Procedures for Violations of the Standards of Professional and Ethical Behavior

University of Missouri-Kansas City School of Nursing

I. Jurisdiction of the School of Nursing
The School of Nursing (SON) shall have jurisdiction over incidents of alleged violations of the University of Missouri-Kansas City School of Nursing’s Standards of Professional and Ethical Behavior, Sections IIA and IIB by students accepted into degree programs in the School of Nursing while at the School of Nursing or enrolled in any nursing course or on clinical rotations at affiliated institutions. Alleged violations of the University of Missouri Student Conduct Code as described in Section III will be referred to the Office of the Vice Chancellor for Student Affairs. The Standards of Professional and Ethical Behavior identify areas of conduct which are judged unacceptable for individuals who are either in or aspire to be in the profession of nursing. The Standards of Professional and Ethical Behavior and these Procedures will be distributed to all newly enrolled students during orientation. When a nursing student has been charged with one or more acts of misconduct according to these standards, the Honor Council shall adhere to the following procedures detailed herein.

The Honor Council shall have the authority to recommend sanctions upon any accused appearing before the Council. The disciplinary proceedings described are not to be construed as judicial trials. Care shall be taken, however, to comply as fully as possible with the spirit and intent of these procedural safeguards.

II. Sanctions
The following sanctions may be imposed upon any nursing student found to have violated Sections IIA and IIB of the University of Missouri – Kansas City School of Nursing Standards of Professional and Ethical Behavior:

- Warning – A notice in writing that the student is violating or has violated the Standards of Professional and Ethical Behavior.
- Probation – A written reprimand for violation of specific provisions of the Standards of Professional and Ethical Behavior that includes a designated period of time and the probability of more severe sanctions if the student violates any institutional regulation(s) during the probationary period.
- Loss of Privileges - Denial of specified privileges in the School of Nursing for a designated period of time. Discretionary Sanctions. Work assignments in the School of Nursing, service to the School of Nursing, or other related discretionary assignments in the School of Nursing.
- Suspension from the School of Nursing – An involuntary separation from the School of Nursing for a specified period of time after which the student is eligible to return. Conditions for readmission may be specified.
- Dismissal from the School of Nursing – An involuntary separation from the School of Nursing for an indefinite period of time. It does not imply or state a minimum separation time.
- Expulsion from the School of Nursing – Permanent separation from the School of Nursing.

III. Organization of the Honor Council
A. Composition
The Honor Council members shall consist of the Chair; three voting faculty members, one representing each program, BSN, MSN, PhD (3 votes); five student members, 4 from the BSN program and one from the MSN or PhD program. Five members or their alternates (2 faculty, excluding the chair, and three students) constitute a quorum. An assigned staff member will assist the Chair in generation of reports and will be present at the hearings to take minutes.

B. Eligibility and Appointment
Faculty members Voting members of the faculty who have no more than a 50% administrative appointment are eligible to serve as chair or members of the honor council. Voting members of the School of Nursing Faculty Forum shall elect the chair of the Honor Council and the undergraduate and graduate faculty representatives. Alternates for each position will also be elected.

Student members In order to be eligible for election to the Honor council, students must be in good standing within the School. A student who is placed on academic or disciplinary probation is ineligible for service on the Honor council. In addition, a student may be determined ineligible for service if his or her membership on the Council is assessed by the Chair not to be in the best interest of the School. Each BSN class shall elect their student representative and their alternates. The graduate representative and alternate shall be elected from among students in all SON graduate programs.

C. Time of Appointment and Term of Office
All members shall serve a one-year appointment, with the exception of the chair who will serve 2 years. Members may be serve more than one term if they are re-elected in subsequent years. Members will serve until they resign or a new member is voted into their position.

Election of student members shall be held on an annual basis at the beginning of the academic year, no later than September 15.
Election of faculty will occur at the last spring faculty forum meeting of the year for the next academic year during regular School committee elections. Faculty vacancies are filled by special election. After fall elections, a preliminary meeting of all members (including the chair) will be held within two weeks in order to discuss the role and function of the Honor Council.

D. Hearing Panel of the Honor Council
All faculty representatives including alternate and the three most senior students not in the accused student’s class will serve as a hearing panel for the honor code violation. A chair of the Hearing Panel will be elected by simple majority vote of the members of the panel. Voting by the hearing panel will take place by secret ballot. The chair of the hearing panel will not vote except in case of a tie among the rest of the hearing panel in which case, the chair shall vote to break the tie. Proxy votes will not be allowed.

E. Primary Administrative Liaison (PAL)
A primary administrative liaison (PAL) will be appointed by the Dean for a minimum of a two year term. The PAL is not eligible to serve as a member of the Honor Council while serving as the PAL. The PAL and the Chair, when possible, should serve overlapping terms. The PAL will draft the charge and represent the School of Nursing in all cases.

IV. Procedures for Report of Violation, Investigation, Informal Disposition, and Notice

A. Report of Violation
An alleged violation of the Standards of Professional and Ethical Behavior should be reported to the PAL of the Honor Council or designee as soon after discovery of the incident. The PAL shall inform the chair and Honor Council of the alleged violation within one week if a hearing will be required. The Chair shall notify the Dean of all accusations. If the PAL determines that no violation occurred then the Dean and the Honor Council will be informed via an annual report submitted at the end of each academic year.

B. Preliminary Procedures and Meeting
The PAL shall determine whether the allegations fall within Sections IIA or IIB, or Section III of the Standards of Professional and Ethical Behavior, and shall refer any allegations of violations of Section II to the UMKC Office of Student Affairs. The PAL shall investigate any reported violation of Sections IIA or IIB before initiating formal conduct procedures. The PAL will notify the accused, in writing by certified mail, of the allegations brought against him/her prior to the commencement of the preliminary meeting between the PAL and the student. In addition, the student shall receive a copy of these Procedures for Violations of the Standards of Professional and Ethical Behavior along with the written notice. The PAL shall meet with the accused student to give the student the opportunity to present a personal version of the incident or occurrence. Following the investigation the PAL shall determine the appropriate preliminary outcome: no formal charge of misconduct, informal disposition, or formal disposition involving an honor council meeting. The PAL will notify the Chair and the Dean of the outcome as required in section IV A.

C. Informal Disposition
The PAL shall have the authority to propose appropriate sanctions to the accused student and within a week the student shall accept or reject a proposed informal disposition. A failure of the student either to accept or reject the informal disposition within the 10 working days shall be deemed to be an acceptance and, in such event, the proposed disposition shall become final upon expiration of such time. If the student rejects informal disposition, it must be in writing and the matter shall then be forwarded to the Honor Council for a formal hearing.

D. General Statement of Procedures
A student charged with a breach of the Standards of Professional and Ethical Behavior is entitled to a written notice of the charge against him or her and a formal hearing unless the matter is disposed of under the rules for informal disposition. Honor Code Procedures are not to be construed as judicial trials and need not wait for legal action before proceeding; however, care shall be taken to comply as fully as possible with the spirit and intent of the procedural safeguards set forth herein. The University of Missouri Office of the General Counsel shall be legal advisor to the Committee and to the PAL.

E. Notice
The PAL shall initiate formal proceedings by arranging with the chair to call a meeting of the Honor Council and by giving written notice to the accused student by email and by certified mail to the student’s last address currently on record with the Office of the Registrar. Failure of the student to have a current correct local address on record shall not be construed to invalidate such notice. The notice shall set forth the date, time and place of the alleged violation and the date, time and place of the hearing before the Honor Council.

F. Conflicts of Interest
Any member of the Honor Council may recuse him or herself if he or she believes he or she has a conflict of interest. The PAL or the accused student may raise the question of a member’s Conflict of Interest at the initial meeting of the Honor Council to hear the charge against the student, and the Chair will determine whether the member should be recused. The member will be replaced by his or her alternate. If both the member and the alternate are recused, the appropriate electing body will chose a second alternate for this case only. [See Section IIB for election procedures.]

G. Temporary Suspension
The Dean or his/her designee may at any time temporarily suspend or deny readmission to a student from the School of Nursing pending formal procedures when the Dean or his/her designee finds and believes from available information that the student would seriously disrupt the School
of Nursing or constitute a danger to the health, safety or welfare of members of the School of Nursing Community. The appropriate procedure to determine the future status of the student will be initiated within seven calendar days.

V. Procedure for Honor Council Hearing

A. Rights of the Honor Council
- Hear together cases involving more than one accused student which arise out of the same transaction or occurrence, but in that event shall make separate findings and determinations for each accused;
- Permit a stipulation of facts by the involved accused and the PAL;
- Permit the incorporation in the record by a reference of any documentation produced and desired in the record by the PAL or the accused student;
- Question witnesses or challenge other evidence introduced by either the PAL or the accused student at any time;
- Hear from the PAL about dispositions made in similar cases and any dispositions offered to the student appearing before the Committee;
- Call additional witnesses or require additional investigation; · Dismiss any action at any time;
- Permit or require at any time amendment of the Notice of Hearing to include new or additional matters which may come to the attention of the Council before final determination of the case; provided, however, that in such event the Council shall grant to the accused or the PAL such time as the Council may determine reasonable under the circumstances to answer or explain such additional matters; and,
- Dismiss any person from the hearing who interferes with or obstructs the hearing or fails to abide by the rulings of the Council Chair.

B. Rights of the Accused Student Upon Hearing – An accused student appearing before the Honor Council shall have the right to:
Submit, if he or she should choose to do so, a written response to the charge outlined in the Notice before the scheduled hearing is to commence;

- Review and obtain copies, in advance, of any materials that will be presented by the PAL at the hearing;
- Submit a written request for a list of witnesses to be called by the PAL at the hearing;
- Be present at the hearing;
- Have an advisor or counselor appear with the accused and to consult with such an advisor or counselor before and/or during the hearing; however, the advisor/counselor will not be allowed to question witnesses and/or address members of the Council. The accused student must notify the chair at least 48 hours in advance with the name and relationship of the advisor and the name of any witness that will attend the hearing;
- Hear or examine evidence presented to the Honor Council; · Question the PAL and any witnesses who testify at the hearing;
- Present evidence by witness, affidavit, or documents in any media; · Make any statement to the Honor Council in mitigation or explanation of the conduct in question;
- Be informed in writing of the findings and any decisions imposed by the Honor Council;
- Appeal the decision and/or disposition to the Dean and to the Chancellor, as herein provided.

C. Conduct of the Hearing
All proceedings of the Honor Council are to be held in confidence by the members. The hearings shall be taped or stenographically recorded. The notice, exhibits, hearing record, verdict, and findings and determination of the Honor Council shall become the record of the Case and shall be filed in the Dean’s office at the School of Nursing. The record shall be accessible at the reasonable times and places to both the PAL and the accused student for the purpose of review or appeal.

The Honor Council Chair shall preside at the hearing. The hearing shall be held in the Dean’s office at the School of Nursing. The record shall be accessible at the reasonable times and places to both the PAL and the accused student for the purpose of review or appeal. The Chair shall rule on all requests and points of order and may consult with Council’s legal advisor prior to any ruling. The Chair’s ruling shall be final, and all participants shall abide thereby, unless the Chair shall present the question to the Council at the request of a member of the Council, in which event, the ruling of the Council by majority vote shall be final. Rules of common courtesy and decency shall be observed at all times.

1. Opening Statements:
- The PAL may make an opening statement outlining the general nature of the case.
- The accused student may make an opening statement to the Council about the charge at this time or at the conclusion of the School of Nursing’s presentation.

2. School of Nursing’s Evidence:
- Witnesses of the School of Nursing are to be called, identified and questioned by the PAL, and any written reports or evidence introduced by the PAL as appropriate.
- The Council may question witnesses at any time.
- The accused student may question witnesses or examine evidence at the conclusion of the PAL’s presentation.

3. Accused Student’s Evidence:
- If the accused student has not elected to make an opening statement previously, he or she shall have the opportunity to make a statement to the Honor Council about the charge at this time.
School of Nursing Honor Codes

- The accused student may present evidence through questioning witnesses or by written memoranda or other documents.
- The Council may question the accused student or witnesses at any time.
- The PAL may question witness or examine evidence at the conclusion of the accused student’s presentation.

4. Rebuttal Evidence:
   The Honor Council may permit the PAL or the accused to offer a rebuttal to the other’s presentation.

VI. Determination of the Honor Council
Following the hearing, the Council shall promptly deliberate in closed session out of the presence of the accused, the witnesses, and the PAL. The Honor Council shall determine by a simple majority vote based on the evidence presented in the hearing whether they believe the student violated the Standards of Professional and Ethical Behavior as charged, and if so what sanction, if any, is appropriate. Separate findings shall be made as to the conduct of the student and as to the sanction, if any, to be imposed. The Council shall promptly submit its findings and determination in writing to the accused student and to the PAL.

The findings and determination of the Honor Council shall serve as a decision for the School of Nursing.

VII. Appeal to the Dean
If the student so desires, he or she may appeal the decision of the Council to the Dean within 10 business days of the Honor Council decision. A copy of the Notice of Appeal shall be given by the student to the PAL. The student may file a written memorandum for consideration by the Dean with the Notice of Appeal, and the Dean may request a reply from the PAL. The Dean shall review the record of the case and the appeal documents, and may affirm, reverse, or remand the case for further proceedings before the Honor Council.

The Dean shall notify the accused of his or her decision in writing, by certified mail. Copies of the letter will be sent to the Honor Council Chair, the PAL, and will be included with the official hearing file.

VIII. Appeal to the Chancellor
The accused student may appeal from the Dean’s decision to the Chancellor or designated representative by filing written notice of appeal with the Chancellor within ten (10) business days after notification of the decision of the Dean. A copy of the Notice of Appeal will also be given by the accused to the Dean of the School of Nursing and to the PAL at the time of filing. The accused student may file a written memorandum for consideration by the Chancellor with the Notice of Appeal.

The Chancellor or designated representative shall review the record of the case and the appeal documents and may affirm, reverse, or remand the case for further proceedings and shall notify the Dean and the accused student in writing of the decision on the appeal. The action of the Chancellor shall be final unless it be to remand the matter for further proceedings.

IX. Status during the Appeal
In cases of suspension, dismissal or expulsion where a Notice of Appeal is filed within the required time, the accused student may petition the Chancellor in writing for permission to attend classes pending final determination of appeal. The Chancellor may permit the accused student to continue in school under such conditions as may be designated pending completion of appellate procedures, provided such continuance will not disrupt the University or constitute a danger to the health, safety or welfare of the University Community. In such event, however, any final disciplinary action imposed shall be effective from the date of the action of the Honor Council.

X. Status of the Standards of Professional and Ethical Behavior
Amendments to the Standards of Professional and Ethical Behavior and/or Honor Council Procedures for Violations may be proposed by petition of any twenty-five members of the student body, or the Honor Council on its own motion, or the faculty.

A proposed amendment in the Standards of Professional and Ethical Behavior and/or Honor Council Procedures for Violations must be approved by a 2/3 majority vote of the Honor Council members present (all members have the right to vote on amendments = 9 votes), by a 2/3 majority vote of the faculty present, by the Chancellor, and by the Board of Curators.

The Standards of Professional and Ethical Behavior and/or Honor Council Procedures for Violations may be terminated at any time by action under the general amending procedure.

Standards of Professional and Ethical Behaviour
University of Missouri – Kansas City School of Nursing

I. Preamble
One of the goals of a school of nursing is to educate student nurses during the transition to a professional life. The University of Missouri – Kansas City School of Nursing (UMKC-SON) has an obligation to society to evaluate students pursuing the B.S.N., M.S.N., and Ph.D. degrees, as thoroughly as possible. This responsibility includes their cognitive abilities, their academic and professional knowledge and skills, their integrity, and their suitability to practice nursing in their desired professional role. Accordingly, the Standards of Professional and Ethical Behavior detailed in this document have been developed to guide students who are enrolled at all levels with the UMKC-SON, including undergraduate and graduate students, and are designed to assure accountability for the professional and ethical standards of the nursing profession.

II. Integrity
A. Personal and Professional Integrity
   1. Honesty
A student nurse shall deal honestly with people including, but not limited to, colleagues, instructors, representatives of the University, patients, attending physicians, nursing staff, any representative of our clinical agencies, and other members of the health care team. Student nurses are expected to demonstrate honesty and integrity in all aspects of their interaction with patients and staff — particularly in assuring accuracy and completeness in their actions and documentation. The student nurse shall be willing to admit errors and must not mislead others or promote himself or herself at the patient’s expense. The student nurse shall strive to report, by utilizing the Honor Council Procedures for Violations of the Standards ofProfessional and Ethical Behavior, those student nurses deficient in character or competence, or who engage in fraud, deception, and/or dishonesty.

A basic principle underlying all research is honesty. Scientists and student nurses who participate in research have a responsibility to provide research results of the highest quality; to gather facts meticulously, to keep impeccable records of work done; to interpret results realistically, not forcing them into preconceived molds or models; and to report new knowledge through appropriate channels. Co-authors of research reports must be sufficiently acquainted with the work of their co-workers that they can personally vouch for the integrity of the study and validity of the findings, and must have been active in the research itself.

- Examples of academic dishonesty include, but are not limited to, the following:
  - **Cheating**
    - Use of any unauthorized assistance in taking quizzes, tests, or examinations;
    - Dependence upon the aid of unauthorized sources in writing papers, preparing reports, solving problems, or carrying out assignments;
    - Acquisition or possession without permission of tests or other academic material belonging to a member of the University faculty or staff;
    - Use of assignments or papers prepared in one class for another class without disclosing such information to the faculty
    - In any way giving assistance to others who are participating in any of the three preceding types of behavior; or
    - Falsifying attendance records or other official documents.
  - **Plagiarism**
    - Use by paraphrase or direct quotation of the published or unpublished work of another person without fully and properly crediting the author with footnotes, citations or bibliographical reference;
    - Unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials; or
    - Unacknowledged use of original work/material that has been produced through collaboration with others without release in writing from collaborators.
  - **Sabotage**
    - Unauthorized interference with, modification of, or destruction of the work or intellectual property of another member of the University.
  - **Falsification of Patient’s Medical Record or Information**
    - Examples of dishonesty related to clinical practice include, but are not limited to, the following:
      - Writing progress notes or other documentation regarding the patient’s status, including, but not limited to, clinical observations, medication administration or results in the patient’s chart when the student nurse has not seen or evaluated the patient, or using incorrect times of data entry.
      - Reporting medical information such as physical examination findings, lab values, test results, medications, or any other relevant patient information to other students, nurses, nursing supervisors, residents, attending physicians, the patient, the patient’s family or other relevant health care personnel that has been fabricated by the student nurse.

6. Responsibility

A student nurse must acquire competencies with the appropriate concepts, knowledge and skills that the faculty determine essential. These competencies shall be utilized to care for the sick and to promote the health and welfare of society. A student nurse shall recognize a responsibility to participate in activities contributing to an improved community.

Student nurses in the care of patients must not be harmful, dangerous, or negligent to the mental or physical health of a patient or the public. Negligent means failure to exercise that degree of skill and learning ordinarily used under the same or similar circumstances by other student nurses.

Students must be familiar with and follow the rules and regulations of the School of Nursing, the University, and professional organizations which they are required to follow as nursing students. Copies of such rules and regulations are attached herewith.

B. Professional Nursing Behavior

1. Nondiscrimination

A nursing student shall provide care to patients without discriminating based on race, color, creed, sex, age, national origin, disability or Vietnam Era Veterans status.

It is against the University regulations to discriminate on the basis of race, color, creed, sex, age, national origin, disability, or Vietnam Era Veterans status. The University has an AIDS policy statement consistent with state law that prohibits discrimination against persons with AIDS or who are HIV positive.

2. Confidentiality

A student nurse shall respect the rights of patients, colleagues, affiliated institutions, and other health professionals, and shall safeguard patient confidences within the constraints of law. The patient’s right to confidentiality in regard to his or her medical record, which includes confidentiality of personal and social history, is a fundamental tenet to health care.
11. Teaching

The discussion in public of the problems of an identified patient, without the patient’s permission, by professional staff (including other students) violates patient confidentiality and is unethical. Under no circumstances can any medical record be removed from any institution. Photocopying of the entire record is never permitted for presentations, rounds, or conferences; if permitted by the health care institution or provider students are permitted to extract information, but not copy ‘wholesale’ parts of the chart. Names of the patients should be omitted from any documents used for these presentations.

3. Disclosure

While the student nurse is a member of the patient care team and under direct or indirect faculty supervision, a student nurse shall continue to study, apply and advance scientific knowledge, make relevant information available to patients, colleagues, and the public, obtain consultation and use the talents of other health professionals when indicated.

Sharing of medical information appropriately with a patient and colleagues involved in the care of the patient is a fundamental ethical requirement. The patient must be well informed to make health care decisions and work intelligently in partnership with the patient care team. Information that the patient needs for decision-making shall be presented in terms that patient can understand. If, for some reason, the patient is unable to comprehend, there shall be disclosure to the patient’s authorized representative. Failure of a student nurse to share medical information relevant to a patient with a patient and colleagues involved in the care of the patient is unethical. Providing inaccurate information with these individuals is also unacceptable.

4. Misconduct with Patients

The student nurse will not engage in nonprofessional behaviors with a patient – even upon the apparent request of a patient – while the student nurse is involved with the patient’s care.

5. Representation

A student nurse shall accurately represent himself or herself to others including, but not limited to, colleagues, instructors, representatives of the University and their affiliates, partner institutions, patients, nurses, and other members of the health care team.

Examples of misrepresentation include, but are not limited to the following:

- Misrepresentation of the student’s position, knowledge, and authority, including use of the title “nurse” by an undergraduate student nurse, or by use of the titles advanced practice nurse (APRN), nurse practitioner (NP), clinical nurse specialist (CNS), nurse midwife (NM), or nurse anesthetist (CRNA) by a graduate student.
- Use of fraud, deception, lies, or bribery in securing any certificate or registration or authority, diploma, permit or license issued, or in obtaining permission to take any examinations.
- Impersonation of any person holding a certificate of registration or authority, permit, license or allowing any person to use his/her certificate of registration or authority, permit license, or diploma from any school.
- Forgery, alteration, or misuse of a patient’s medical records or knowingly furnishing false information to the other members of the health care profession and/or professional organizations.

6. Assessment of Personal Competence (Self-Evaluation)

Student nurses shall seek consultation and supervision whenever their ability to play their role in the care for a patient is inadequate because of lack of knowledge or experience. Students are expected to respond to constructive criticism by appropriate modification of behavior.

7. Professional Demeanor

The student nurse is a representative of UMKC, and should realize that their behavior may positively and negatively affect the judgments of others about UMKC-SON.

UMKC-SON students are expected to be thoughtful and professional when interacting with faculty, patients and their families, nurses, attending physicians, nursing preceptors, affiliated institutional staff, other students, and other members of the health care team.

Students shall maintain a neat and clean appearance, and dress in attire that is generally accepted as professional by the patient populations served.

Inappropriate behavior includes, but is not limited to, the use of offensive language, gestures, or remarks. Attempting, directly or indirectly, by way of intimidation, coercion or deception, to obtain or retain a patient or discourage the use of a second opinion or consultation is not appropriate.

8. Impairment

The student nurse will not use alcohol or drugs in ways that impair his/her ability to perform the work of the profession or results in compromised patient care. It is the responsibility of every student nurse to strive to protect the public from an impaired colleague and to assist that colleague whose capability is impaired because of alcohol or drug use.

9. Conflict of Interest

If a conflict of interest arises, the moral principle is clear – the welfare of the patient must be, at all times, paramount. For example, gifts, hospitality, or subsidies offered by manufacturers and distributors of medical and or other equipment/goods shall not be accepted if acceptance would influence the objectivity of clinical judgment.

10. Criticism of Colleagues

Professional relations among all members of the medical community shall be marked by civility. Scholarly contributions shall be acknowledged and each person shall recognize and facilitate the contributions of others to this community; slanderous comments and acts are not acceptable. Student nurses shall deal with professional, staff, and peer members of the health team in a considerate manner and with a spirit of cooperation. It is unethical and harmful for a student nurse to disparage, without sufficient evidence, the professional competence, knowledge, qualifications, or services of a colleague to anyone. It is also unethical to imply without reliable evidence – by word, gesture, or deed – that a patient has been poorly managed or mistreated by a colleague.
It is incumbent upon those entering this profession to teach what they know of the science, art, and ethics of nursing care. It includes communicating clearly and teaching patients so that they are properly prepared to participate in their own care and in the maintenance of their health.

III. The University of Missouri Student Conduct Code

In addition to the conduct detailed in the preceding sections, a student nurse is subject to the University of Missouri Student Conduct Code, as administered by the Office of the Vice Chancellor for Student Affairs, except for provisions dealing with academic dishonesty, Section 200.010 B. 1. Conduct for which students are subject to sanctions falls into the following categories:

1. Forgery, alteration, or misuse of University documents, records or identification, or knowingly furnishing false information to the University.
2. Obstruction or disruption of teaching, research, administration, conduct proceedings, or other University activities, including its public service functions on or off campus.
3. Physical abuse or conduct which threatens or endangers the health or safety of any person.
4. Attempted or actual theft of, damage to, or possession without permission of property of the University or of a member of the University community or of a campus visitor.
5. Unauthorized possession, duplication, or use of keys to any University facilities or unauthorized entry to or use of University facilities.
6. Violations of University policies, rules or regulations or of campus regulations including, but not limited to, those governing residence in University-provided housing, or the use of University facilities, or the time, place and manner of public expression.
7. Manufacture, use, possession, sale or distribution of alcoholic beverages or any controlled substance with out proper prescription or required license or as expressly permitted by law or University regulations.
8. Disruptive or disorderly conduct or lewd, indecent, or obscene conduct or expression.
9. Failure to comply with direction of University officials acting in the performance of their duties.
10. Illegal or unauthorized possession of firearms, explosives, other weapons, or dangerous chemicals.

Details of the policies, procedures, sanctions, and due process for violations of the University of Missouri Student Conduct Code are found in the University of Missouri – Kansas City General Catalogue and the student handbook.


School of Pharmacy Honor Codes

Honor Council Procedures for Violations of the Standards of Professional Growth and Ethical Behavior

University of Missouri-Kansas City School of Pharmacy

I. Jurisdiction of the Honor Council

The Honor Council shall be concerned with specified incidents of alleged violations by University of Missouri-Kansas City School of Pharmacy students of the School’s Standards of Professional and Ethical Behavior, Sections IIA and IIB. Violations of the University of Missouri Student Conduct Code as described in Section III will be referred to the Office of the Vice Chancellor for Student Affairs. The standards identify areas of conduct which are judged unacceptable for individuals who are either in or aspire to be in the profession of pharmacy. The Standards of Professional and Ethical Behavior are distributed to all newly enrolled students during orientation. When a pharmacy student has been charged with one or more acts of misconduct according to these standards, the Honor Council shall adhere to the following procedures detail herein. The Honor Council shall have the authority to recommend sanctions upon any accused appearing before the Council. The disciplinary proceedings described are not to be construed as judicial trials. Care shall be taken, however, to comply as fully as possible with the spirit and intent of these procedural safeguards.

II. Organization of the Honor Council

A. Composition

The Honor Council members shall consist of the Chair; three voting faculty members, one from each division (3 votes); and one student member from each year 2-6 of the professional degree programs (5 students). The three most senior students no in accused’s class will vote. Voting will take place by secret ballot. The chair and faculty members will not be administrators or division chairs. Four members or their alternates (2 faculty (to exclude the chair), 2 students) constitute a quorum. One nonvoting Honor Council staff member will assist the Chair in generation of reports and
The Honor Council shall have the right to:

A. Rights of the Honor Council

for the hearing. If the accused fails to appear at the scheduled time, the Honor Council may hear and determine the matter in the accused’s absence.

at least seven (7) consecutive calendar days prior to the hearing, unless a shorter time be fixed by the Chair for good cause. Any request for continuance

alleged violation, the conduct for inquiry, the date, time and place of the hearing before the Council, request for attendance of the parties involved, and

Failure by the accused to have a current local address on record with the Registrar’s Office shall not be construed to invalidate such notice. The

If the accusation is found at the preliminary meeting to be within the jurisdiction of the Honor Council, the formal hearing will be held within 15

An alleged violation of the Standards of Professional and Ethical Behavior should be reported to the PAL of the Honor Council or designee as soon as possible after discovery of the incident. The Chair shall notify the Dean of all accusations.

The PAL shall investigate any reported student misconduct before initiating formal conduct procedures. The PAL is responsible for notifying the accused, in writing by certified mail, of the allegations brought against him/her prior to the commencement of the preliminary meeting and shall receive a copy of these Procedures for Violations of the Standards of Professional and Ethical Behavior along with the written notice. The PAL shall meet with the accused student to give the student the opportunity to present a personal version of the incident or occurrence.

The PAL shall have the authority to dismiss an allegation or propose appropriate sanctions to the accused student and shall fix a reasonable time within which the student shall accept or reject a proposed informal disposition. A failure of the student either to accept or reject within the time fixed shall be deemed to be an acceptance and, in such event, the proposed disposition shall become final upon expiration of such time. If the student rejects informal disposition, it must be in writing and shall be forwarded to the Honor Council.

The PAL shall draft the charge and call the Honor Council into session for a preliminary meeting within 10 working days of receipt of a written accusation of misconduct. The Chair of the Honor Council shall approve meeting dates. In the case that an elected member and an alternate have a conflict of interest in the case, the electing body would choose another member for the one case at the time of the preliminary meeting. [See section IIB for election procedures] If the case is found to be within the jurisdiction of the Honor Council, a formal hearing will be held. If it is not within the jurisdiction of the Honor Council, the case will be forwarded to the Office of the Vice Chancellor for Student Affairs or other appropriate action will be taken. The PAL and the accused may meet with the Chair separately to discuss these policies and procedures. The Dean, designee, or other appropriate university official(s), may at any time temporarily suspend or deny readmission to the accused from the School of Pharmacy pending formal procedures when the Dean or the Chancellor or the Chancellor’s designee finds and believes from available information that the presence of the accused on campus would seriously disrupt the School of Pharmacy or constitute a danger to the health, safety, or welfare of members of the School of Pharmacy community. The appropriate procedure to determine the future status of the accused will be initiated within seven calendar days of any action taken.

If the accusation is found at the preliminary meeting to be within the jurisdiction of the Honor Council, the formal hearing will be held within 15 working days of mailing of the official notice. Notice by certified mail will be sent to the address currently on record with the UMKC Registrar’s Office. Failure by the accused to have a current local address on record with the Registrar’s Office shall not be construed to invalidate such notice. The PAL, witnesses, and the accused will be given written notice of the hearing by certified mail. The notice shall set forth the date, time, and place of the alleged violation, the conduct for inquiry, the date, time and place of the hearing before the Council, request for attendance of the parties involved, and a reference for the accused to the Rights of the Accused Student Upon Hearing which are outlined in these Procedures. The notice shall be given at least seven (7) consecutive calendar days prior to the hearing, unless a shorter time be fixed by the Chair for good cause. Any request for continuance shall be made in writing to the Chair who shall have the authority to postpone the hearing if it is determined that the request is timely and made for good cause. The Chair shall notify the Honor Council members, the accused, the PAL, the witnesses, and any other relevant individuals of the new date for the hearing. If the accused fails to appear at the scheduled time, the Honor Council may hear and determine the matter in the accused’s absence.

The Honor Council shall have the right to:
• hear together cases involving more than one accused which arise out of the same act of misconduct, but in that event shall make separate
findings and determinations for each accused;
• permit a stipulation of facts by the accused involved and the PAL;
• permit the incorporation in the record by a reference of any document, affidavit, or other material produced and desired in the record by the PAL or
the accused charged and make a determination of whether the information is relevant to the case at hand.
• question witnesses, the accused, and/or the PAL or challenge other evidence introduced by either the PAL or the accused at any time;
• hear from the Council Chair about dispositions made in similar cases;
• call additional witnesses or require additional investigation,
• dismiss any action at any time;
• permit or require at any time, within a reasonable time as determined by the Council, amendment of the Notice of Hearing to include new or
additional matters which may come to the attention of the Council before final determination of the case; provided, however, that in such event the
Council shall grant to the accused or the School such time as the Council may determine reasonable under the circumstances to answer or explain
such additional matters; and,
• dismiss any person from the hearing who interferes with or obstructs the hearing or fails to abide by the rulings of the Council Chair on any
procedural question or request of the Chair for order.

B. Rights of the Accused Upon Hearing
The accused scheduled to appear before the Honor council pursuant to formal notice of charges and disciplinary hearing shall have the right to:
• submit a written response to the charge outlined in the Notice before the scheduled hearing is to commence;
• request in advance of the scheduled hearing a review of any materials contained in the accused's hearing file which will be kept in the Student
Affairs Office;
• submit a written request for the identities of witnesses to be called to testify before the Council;
• be present at the hearing;
• have an advisor or counselor appear with the accused and to consult with such an advisor or counselor before and/or during the hearing; however,
the advisor/counselor will not be allowed to question witnesses and/or address members of the Council;
• hear or examine evidence presented to the Honor Council
• question the PAL and/or witnesses present who are testifying at the hearing.
• present evidence by witness, affidavit, written report, other memoranda, photographs, drawings, and any other relevant evidence of any defense
the accused desires:
• make any statement to the Honor Council in mitigation or explanation of the conduct in question;
• remain silent to avoid self-incrimination;
• be informed in writing of the findings and any decisions imposed by the Honor Council, the Executive Committee; and, • appeal the decision and/or
disposition to the Chancellor, as herein provided.

C. Rights of School of Pharmacy
The Primary Administrative Liaison (PAL) has the right to:
• be present at the hearing;
• present evidence by witness, affidavit, written report, other memoranda, photographs, drawings, and any other relevant evidence the PAL desires;
• offer rebuttal at the appropriate time as determined by the Chair;
• question witnesses or the accused;
• have an advisor or counselor appear with the PAL and to consult with such an advisor or counselor before or during the hearing; however, the
advisor/counselor will not be allowed to question witnesses and/or address members of the Council;
• hear or examine evidence presented to the Honor Council by witnesses or the accused; and,
• be informed in writing of the findings and any decisions imposed by the Honor Council or the Executive Committee.

D. Rights of Witnesses
Witnesses shall be notified of the scheduled time, date, and location of the hearing. Witnesses shall bring with them whatever documentation is
requested. Failure of a student witness to appear, without good cause, is a violation of the Standards of Professional and Ethical Behavior.

E. Record of Hearing
All proceedings of the Honor Council are to be held in the strictest confidence by the members and all other persons involved. The hearings shall be
audio taped, and written minutes will also be recorded. The notice, exhibits, hearing record, verdict, and disposition of the Honor Council shall become
the record of the Case. This official document shall be filed under strictest security in the permanent records of the Students Affairs Office of the
School of Pharmacy. The record shall be accessible at the reasonable times and places to both the University and the accused for the purpose of
review or appeal.
F. Conduct of the Hearing
The Honor Council Chair shall preside at the hearing, call the hearing to order, call the roll of the Honor Council members in attendance, ascertain the presence or absence of the accused, read the Notice of Hearing and Charge and verify the receipt of Notice of Charge by the accused, report any continuances requested or granted, establish the presence of any advisor or councilor of the accused, call t the attention of the accused and the advisor any special or extraordinary procedures to be employed during the hearing, and permit suggestions for or objections to any procedures for the Honor Council to consider. NOTE: Advisors will not be allowed to questions the PAL, witnesses, and/or address members of the Council. All requests to address the Council shall be addressed to the Chair. The Chair will rule on all requests and points of order and may consult with Council's legal advisor prior to any ruling. The Chair's ruling shall be final, and all participants shall abide thereby, unless the Chair shall present the question to the Council at the request of a member of the Council, in which event, the ruling of the Council by majority vote shall be final. Rules of common courtesy and decency shall be observed at all times.

1. Opening Statements
   • The Honor Council Chair or designee shall make opening remarks outlining the general nature of the case.
   • The accused may make an opening statement to the Council about the charge at this time.
   • The PAL may make an opening statement and may add additional clarification to other opening statements as necessary.
   • Witnesses of the School of Pharmacy are to be called by the PAL and identified or written reports of evidence are introduced as appropriate.
   • The Council may question witnesses at any time.
   • The accused may question witnesses or examine evidence at the conclusion of the PAL’s presentation.

2. School of Pharmacy's Evidence
   • The PAL may question own witnesses.
   • The accused shall have the opportunity to make a statement to the Honor Council about the charge.
   • The accused may present evidence through witnesses or written memoranda.
   • The Council may question the accused or witnesses at any time.
   • The PAL may question witnesses or examine evidence at the conclusion of the accused’s presentation.
   • the accused may question own witnesses.
   • Accused’s Evidence:

3. Rebuttal Evidence:
The Honor Council may permit the PAL or the accused to offer a rebuttal to the other’s presentation. If it appears that essential testimony is unavailable, or that for other good cause the hearing should be deferred, the Council may continue, recess or discontinue the hearing without prejudice.

V. Determination of the Honor Council
Following the hearing, the Council shall promptly deliberate in closed session out of the presence of the accused, the witnesses, or the PAL. Determination is to be made regarding both the validity of the charge and the discipline, if any, to be imposed.

A. Violation of the Standards of Professional and Ethical Behavior
The Honor Council shall determine if the evidence presented in the hearing supports the charge of violation of the Standards of Professional and Ethical Behavior. The Council shall render a decision, by simple majority vote, of whether a violation has been committed by the accused. Each charge, if there are more than one, shall be considered individually and/or collectively at the discretion of the Council.

B. Discipline Imposed
The Honor Council shall determine the discipline to be imposed, if any, based upon its deliberations. The following forms of discipline are to be recommended by means of a simple majority vote of the Council members. Where there are multiple violations, there can be separate sanctions for each violation. The sanctions include, but are not limited to, the following:

   • No Disciplinary Action –
     Given when the student is not found in violation of the Standards of Professional and Ethical Behavior.
   • Warning –
     A written reprimand that the student has violated the Standards of Professional and Ethical Behavior.
   • Probation –
     A written reprimand for violation of the Standards of Academic Conduct that includes a designated period of time, the probability of more severe sanctions if the student violates any institutional regulation(s) during the probationary period, and subject to any appropriate terms or conditions, such as loss of privileges, restitution, and discretionary assignments.
   • Suspension –
     An involuntary separation from the School of Pharmacy for a specified period of time or until special conditions have been met, with a statement whether suspension should relate back to the date of the offense, begin at the time imposed, or begin at a date specified in the future. At the conclusion of the period of suspension, the suspended student is automatically returned to student status. Conciliation for readmission may be specified.
   • Dismissal –
An involuntary separation from the School of Pharmacy for an indefinite period of time. The order of dismissal may specify a date before which the faculty will not consider a petition for readmission from the dismissed student.

- **Expulsion** –
  Permanent separation from the School of Pharmacy. A copy of the imposed sanction is to be placed in the student’s non-academic file.

C.
An oral presentation of the Council’s findings and recommendations is permitted following the hearing, but a written document including findings of fact, verdict, and recommended disposition shall be completed as soon as possible after the hearing. This Final Report of the Council shall be submitted to the Executive Committee and the Office of the Vice Chancellor for Student Affairs. All parties will be notified in writing of the Honor Council’s recommendation by certified mail within seven calendar days.

**VI. Decision of the Executive Committee**
The findings and determination of the Honor Council serve as recommendations to the Executive Committee. The Executive Committee, as described in the School of Pharmacy By-Laws, chaired by the Dean or designee, reviews the charge, the finding of fact, the decision of the Council, and the recommended discipline to be imposed from the Honor Council. They also assured that the procedures outlined for the Honor Council were successfully followed. The Executive Committee has the right to request further information from either party. Either party can also request to address the Executive Committee. In either case, both parties will be notified of the request, the nature of the request, and be asked to attend if deemed necessary by the Executive Committee. Both parties will have the same rights as they have upon hearing as outlined in IV B & C of this document. The Executive Committee hearings shall be audio taped, and written minutes will also be recorded. The notice, exhibits, hearing record, verdict, and disposition of the Executive Committee shall become the record of the Case. This official document shall be filed in the permanent records of the Student Affairs Office of the School of Pharmacy. The record shall be accessible at the reasonable times and places to both the University and the accused for the purpose of review or appeal. After deliberation and careful consideration, the Executive Committee approves, by simple majority vote, one of the following actions:

- to sustain the recommendations of the Honor Council;
- to amend the recommendations of the Honor Council to another type of sanction;
- to remand the Honor Council’s recommendations; or,
- to reverse the Honor Council’s recommendations.

The Dean shall notify the accused of the findings of the Honor Council and the Executive Committee in writing, by certified mail, within seven calendar days of the Executive Committee meeting. Copies of the letter will be sent to the Honor Council Chair, the PAL, and the Office of Student Affairs for placement in the accused’s file and in the official hearing file.

**VII. Right of Appeal**
When a recommendation from the Honor Council and the Executive Committee is made for some form of disciplinary action other than ‘no disciplinary action’, the accused may appeal such decision to the Chancellor or designated representative by filing written notice of appeal with the Chancellor within ten (10) consecutive calendar days after notification of the decision of the Executive Committee. A copy of the Notice of Appeal will also be given by the accused to the Dean of the School of Pharmacy at the time of filing who will transmit copies to the Executive Committee and the Honor Council. The accused may file a written memorandum for consideration by the Chancellor with the Notice of Appeal.

The Chancellor or designated representative shall review the record of the case and the appeal documents and may affirm, reverse, or remand the case for further proceedings and shall notify the Dean and the accused in writing of the decision on the appeal. The action of the Chancellor shall be final unless it be to remand the matter for further proceedings.

**Status During Appeal**
In cases of suspension, dismissal or expulsion where a Notice of Appeal is filed within the required time, the accused may petition the Chancellor in writing for permission to attend classes pending final determination of appeal. The Chancellor may permit the accused to continue in school under such conditions as may be designated pending completion of appellate procedures, provided such continuance will not disrupt the University or constitute a danger to the health, safety or welfare of the University Community. In such event, however, any final disciplinary action imposed shall be effective from the date of the action of the Executive Committee.

**VIII. Status of the Standards of Professional and Ethical Behavior**
Amendments to the Standards of Professional and Ethical Behavior and/or Honor Council Procedures for Violations may be proposed by petition of any twenty-five members of the student body, or the Honor Council on its own motion, or the faculty.

A proposed amendment in the Standards of Professional and Ethical Behavior and/or Honor Council Procedures for Violations must be approved by a 2/3 majority vote of the Honor Council members present (all members have the right to vote on amendments = 9 votes), by a 2/3 majority vote of the faculty present, by the Chancellor, and the Board of Curators.

The Standards of Professional and Ethical Behavior and/or Honor Council Procedures for Violations may be terminated at any time by action under the general amending procedure.
Standards of Professional and Ethical Behavior
University of Missouri-Kansas City School of Pharmacy

I. Preamble

One of the goals of a pharmacy school is to educate a pharmacy student during the transition to a professional life. The University of Missouri-Kansas City School of Pharmacy has an obligation to evaluate students pursuing the B.S. and Pharm.D. practice degrees as thoroughly as possible for their cognitive abilities, their academic and professional knowledge and skills, their integrity, and their suitability for the practice of pharmacy. Accordingly, the Standards of Professional and Ethical Behavior detailed in this document have been developed to guide the pre-professional behavior of professional degree-seeking pharmacy students of the University of Missouri-Kansas City School of Pharmacy and to prepare the pharmacy students to meet the ethical standards of the pharmacy profession.

Students enrolled in the graduate programs in pharmaceutical sciences and pharmacology will be governed by the University of Missouri Student Conduct Code.

II. Professional Integrity

A. Professional Integrity

1. Honesty

A pharmacy student shall deal honestly with people including, but not limited to, colleagues, instructors, representatives of the University, patients, attending physicians, and other members of the health care team. Pharmacy students are expected to demonstrate honesty and integrity in all aspects of their interaction with patients and staff — particularly in assuring accuracy and completeness in their actions and documentation. The pharmacy student shall be willing to admit errors and must not mislead others or promote himself/herself at the patient’s expense. The pharmacy student shall strive to report, by utilizing the Honor Council Procedures for Violations of the Standards of Professional and Ethical Behavior, those pharmacy students deficient in character or competence, or who engage in fraud or deception.

The basic principle underlying all research is honesty. Scientists and pharmacy students who participate in research have a responsibility to provide research results of the highest quality; to gather facts meticulously, to keep impeccable records of work done; to interpret results realistically, not forcing them into preconceived molds or models: and to report new knowledge through appropriate channels. Co-authors of research reports must be sufficiently acquainted with the work of their co-workers that they can personally vouch for the integrity of the study and validity of the findings, and must have been active in the research itself.

• Examples of academic dishonesty include, but are not limited to, the following:
  • Cheating
  • use of any unauthorized assistance in taking quizzes, tests, or examinations;
  • dependence upon the aid of unauthorized sources in writing papers, preparing reports, solving problems, or carrying out other assignments;
  • acquisition or possession without permission of tests or other academic material belonging to a member of the University faculty or staff;
  • in any way giving assistance to others who are participating in any of the three preceding types of behavior; or
  • falsifying attendance records or other official documents.

• Plagiarism
  • use by paraphrase or direct quotation of the published or unpublished work of another person without fully and properly crediting the author with footnotes, citations or bibliographical reference;
  • unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials; or
  • unacknowledged use of original work/material that has been produced through collaboration with others without release in writing from collaborators.

• Sabotage
  • unauthorized interference with, modification of, or destruction of the work or intellectual property of another member of the University community.

• Examples of dishonesty related to clinical practice include, but are not limited to, the following:
  • Falsification of Patient’s Medical Record or Information
  • Writing progress notes or other documentation regarding the patient’s status, including, but not limited to, clinical observations or results in the patient’s chart when the pharmacy student has not seen or evaluated the patient, or using incorrect times of data entry.
  • Reporting medical information such as physical examination finds, lab values, test results, any other relevant patient information to other students, residents, attending physicians, the patient, the patient’s family, or other relevant health care personnel that has been fabricated by the pharmacy student.

2. Responsibility

A pharmacy student must acquire competencies with the appropriate concepts, knowledge, and skills which the faculty determine to be essential. These competencies shall be utilized to care for the sick and to promote the health and welfare of society. A pharmacy student shall recognize a responsibility to participate in activities contributing to an improved community.

Pharmacy students in the care of patients must not be harmful, dangerous, or negligent to the mental or physical health of a patient or the public. Negligent means the failure to use that degree of skill and learning ordinarily used under the same or similar circumstances by other pharmacy students.
Students must be familiar with and follow the rules and regulations of the School of Pharmacy, the University, and related professional organizations.

B. Pharmacy Professional Behavior

1. Nondiscrimination

It is against University regulations to discriminate on the basis of race, color, creed, sex, age, national origin, disability, or Vietnam Era Veterans status. The University has an AIDS policy statement consistent with state law that prohibits discrimination against persons with AIDS or who are HIV positive.

2. Representation

A pharmacy student shall accurately represent himself/herself to others including, but not limited to, colleagues, instructors, representatives of the University, patients, pharmacists and other members of the health care team.

Examples of misrepresentation include, but are not limited to the following:

- A pharmacy student shall never use the title of "pharmacist", as this clearly misrepresents the student’s position, knowledge, and authority.
- Use of fraud, deception, lies, or bribery in securing any certificate of registration or authority, diploma, permit or license issued, or in obtaining permission to take any examinations.
- Impersonation of any person holding a certificate of registration or authority, permit, license or allowing any person to use his/her certificate of registration or authority, permit, license, or diploma from any school.
- Forgery, alteration, or misuse of a patient’s medical records or knowingly furnishing false information to the other members of the health care profession and/or professional organizations.

3. Confidentiality

A pharmacy student shall respect the rights of patients, colleagues, and other health professionals, and shall safeguard patient confidences within the constraints of the law. The patient’s right to confidentiality in regard to his/her medical record, which includes confidentiality of personal and social history, is a fundamental tenet to medical care. Proprietary information from clerkship and/or externships shall not be shared. The discussion in public of the problems of an identified patient, without the patient’s permission, by professional staff (including other students) violates patient confidentiality and is unethical. Under no circumstances can any medical record be removed from the institution. Photocopying of the entire record is never permitted for presentations or rounds; students are permitted to extract information, but not copy ‘wholesale’ parts of the chart. Names of patients should be omitted from any documents used for these presentations.

4. Disclosure

While the pharmacy student is a member of the patient care team and under faculty supervision, a pharmacy student shall continue to study, apply and advance scientific knowledge, make relevant information available to patients, colleagues, and the public, obtain consultation, and use the talents of other health professionals when indicated.

Sharing of medical information appropriately with a patient and colleagues involved in the care of the patient is a fundamental ethical requirement. The patient must be well informed to make health care decisions and work intelligently in partnership with the patient care team. Information that the patient needs for decision making shall be presented in terms the patient can understand. If, for some reason, the patient is unable to comprehend, there shall be disclosure to the patient’s authorized representative.

Failure of a pharmacy student to share medical information relevant to a patient with the patient and colleagues involved in the care of the patient is unethical. Providing inaccurate information with these individuals is also unacceptable.

5. Assessment of Personal Competence (Self-Evaluation)

Pharmacy students shall seek consultation and supervision whenever their ability to play their role in the care for a patient is inadequate because of lack of knowledge or experience.

Students are expected to respond to constructive criticism by appropriate modification of behavior.

It is unacceptable for a pharmacy student to dispense prescription medications or to prescribe therapies without supervision.

6. Professional Demeanor

The pharmacy student is expected to be thoughtful and professional when interacting with faculty, patients and their families, attending physicians, pharmacy preceptors, other students, and other members of the health care team and whenever his/her behavior may influence adversely the judgments of others about the professional school of University.

Students shall maintain a neat and clean appearance, and dress in attire that is generally accepted as professional by the patient populations served.

Inappropriate behavior includes, but is not limited to, the use of offensive language, gestures, or remarks. Attempting, directly or indirectly, by way of intimidation, coercion or deception, to obtain or retain a patient or discourage the use of a second opinion or consultation is not appropriate.

7. Conflict of Interest

If a conflict of interest arises, the moral principle is clear – the welfare of the patient must be, at all times, paramount. For example, gifts, hospitality, or subsidies offered by manufacturers and distributors of medical and pharmaceutical equipment/goods shall not be accepted if acceptance would influence the objectivity of clinical judgment.

8. Misconduct with Patients

The pharmacy student will not engage in romantic, sexual, or other nonprofessional behaviors with a patient – even upon the apparent request of a patient – while the pharmacy student is involved with the patient’s care.

9. Impairment
The pharmacy student will not use alcohol or drugs in ways that impair his/her ability to perform the work of the profession or results in compromised patient care. It is the responsibility of every pharmacy student to strive to protect the public from an impaired colleague and to assist that colleague whose capability is impaired because of alcohol or drug use.

10. Criticism of Colleagues
Professional relations among all members of the medical community shall be marked by civility. Scholarly contributions shall be acknowledged and each person shall recognize and facilitate the contributions of others to this community; slanderous comments and acts are not acceptable. Pharmacy students shall deal with professional, staff, and peer members of the health team in a considerate manner and with a spirit of cooperation.

It is unethical and harmful for a pharmacy student to disparage, without sufficient evidence, the professional competence, knowledge, qualifications, or services of a colleague to anyone. It is also unethical to imply without reliable evidence – by word, gesture, or deed – that a patient has been poorly managed or mistreated by a colleague.

11. Teaching
It is incumbent upon those entering this profession to teach what they know of the science, art, and ethics of pharmaceutical care. It includes communicating clearly and teaching patients so that they are properly prepared to participate in their own care and in the maintenance of their health.

III. The University of Missouri Student Conduct Code
In addition to the conduct detailed in the preceding sections, a pharmacy student is subject to the University of Missouri Student Conduct Code, Section 200.010 Section B of the Collected Rules and Regulations of the University of Missouri (except for provisions dealing with academic dishonesty) (http://www.umsystem.edu/ums/rules/collected_rules/programs/ch200/200.010_standard_of_conduct), which is enforced with the procedures appearing in Section 200.020 (http://www.umsystem.edu/ums/rules/collected_rules/programs/ch200/200.020_rules_of_procedures_in_student_conduct_matters).

Summary:
• Details of the policies, procedures, sanctions, and due process for violations of the Standards are available on the School of Pharmacy website.
• Details of the policies, procedures, sanctions, and due process for violations of the University of Missouri Student Conduct Code are found in the University of Missouri-Kansas City General Catalogue and the student handbook.
• Please contact the School of Pharmacy Associate Dean for Student Affairs if you have questions or need additional information about any of the policies covered in this document.

Revision: 12/18/13 – Non-substantive/clerical revision only.

Acceptable Use Policy
(110.005 Acceptable Use Policy; Bd. Min. 9-14-00.)

This policy is also available at http://www.umsystem.edu/ums/rules/collected_rules/facilities/ch110/110.005_acceptable_use_policy.

This policy applies to all users including faculty, staff, students, and guest users of University of Missouri computer networks, equipment, or connecting resources.

1. University Inspection of Personal Electronic Information
Electronic information on University networks or equipment, including, but not limited to, electronic mail and personal information, is subject to examination by the University where:
   a. It is necessary to maintain or improve the functioning of University computing resources;
   b. Where there is a suspicion of misconduct under University policies, or suspicion of violation of Federal or State laws; or
   c. It is necessary to comply with or verify compliance with Federal or State law.

2. Acceptable Use Guidelines
   a. Responsibilities of Users of University Computer Resources:
      i. Respect the intellectual property rights of authors, contributors, and publishers in all media.

      ii. Protect user ID, password, and system from unauthorized use.

      iii. Adhere to the terms of software licenses and other contracts. Persons loading software on any University computer must adhere to all licensing requirements for the software. Except where allowed by University site licenses, copying software licensed for University use for personal use is a violation of this policy.

      iv. Adhere to other University and campus policies, including the Collected Rules and Regulations of the University of Missouri, and, if applicable, the University Business Policy Manual, Human Resources Manual and policies established for a specific resource.

      v. Adhere to data access policies of the University or those established by law.

      vi. Use University computer resources in a manner that is compliant with University policies and State and Federal law.

   b. Prohibited Uses of University Computer Resources:
i Unauthorized or excessive personal use. Use may be excessive if it overburdens a network, results in substantial use of system capacity, or otherwise subjects the institution to increased costs or risks (employees additionally may be subject to discipline for unauthorized or excessive personal use of computer resources).

ii Uses that interfere with the proper functioning of the University's information technology resources.

iii Uses that unreasonably interfere with the ability of others to make use of University computer resources.

iv Attempting to gain or gaining unauthorized access to the computer system, or files of another.

v Use of University computer resources to infringe the intellectual property rights of others.

vi Use of University computer resources for personal profit, except as permitted under the University's conflict of interest policy.

3. **Enforcement of Acceptable Use Policy**

   Violation of the Acceptable Use Policy may result in a denial of access to University computer resources, and those disciplinary actions provided or authorized by the Collected Rules and Regulations of the University of Missouri. Students who violate these guidelines will be subject to sanctions as outlined in section 200.010 (http://www.umkc.edu/umkc/catalog/html/append/policy/conduct.html) of the Student Conduct Code. All such cases will be forwarded to the Primary Administrative Officer in the Student Life Office for appropriate action.

Faculty or staff who violate these guidelines will be subject to disciplinary measures as outlined within the University Policy Manuals. Violations of some of the above guidelines may constitute a criminal offense. Individuals using UMKC computing resources are urged to review the University Policy Manual, Computer Crimes Bill passed by the Missouri State Legislature (http://www.umkc.edu/is/cio/policy/mo-crime.html) and the MOREnet Acceptable Use Policy (http://www.more.net), all of which are stored on-line for easy access.

**Equal Opportunity Guidelines**

Equal Opportunity is and shall be provided for all employees and applicants for employment on the basis of their demonstrated ability and competence without discrimination on the basis of their race, color, religion, sex, sexual orientation, gender identity, gender expression, national origin, age, genetic information, disability status, protected veteran status or any other characteristic protected by law. This policy shall not be interpreted in such a manner as to violate the legal rights of religious organizations or military organizations associated with the Armed Forces of the United States of America.

Equal Opportunity is and shall be also provided for all students and applicants for admission in compliance with existing legislation.

The Affirmative Action office is responsible for coordinating UMKC’s Affirmative Action and Equal Opportunity program, monitoring the University’s compliance with federal and state laws, regulations and the investigation of discrimination and harassment complaints by students, faculty and staff against University employees. Additional information may be found on the Affirmative Action website: http://info.umkc.edu/hr/affirmative-action/.

https://www.umsystem.edu/ums/rules/collected_rules/equal_employment_educational_opportunity/ch600

**Chapter 600: Equal Employment/Educational Opportunity**

- 600.020 Sex Discrimination, Sexual Harassment and Sexual Misconduct in Education/Employment Policy (https://www.umsystem.edu/ums/rules/collected_rules/equal_employment_educational_opportunity/ch600/600.020_sex_discriminationsexual_harassment_and_sexual_misconduct)

Title IX of the Education Amendments of 1972 is a federal law that prohibits sex discrimination in education. It reads:

> *No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal Financial Assistance* -Title IX of the Education Amendments of 1972, and its implementing regulations at 34 C. F. R. Part 106.

Sex discrimination includes sexual harassment, assault, and/or violence.

Title IX is often thought of as the law that applies to athletic programs, Title IX is much broader than Athletics and applies to all programs at UMKC.

While compliance with the law is everyone's responsibility at UMKC, you can find a list of staff members below who have primary responsibility for Title IX compliance.

[UMKC Title IX Coordinators/Deputy Coordinators](http://info.umkc.edu/title9/reporting/contact)
Minimum Standards of Progress for Veterans

Veterans Affairs regulations require that all veterans drawing VA educational benefits at UMKC must comply with the Veterans Affairs Minimum Standards of Progress. These standards dictate that the veteran must be making satisfactory progress toward a degree while enrolled. The University's academic and probation policies have been approved by the Veterans Affairs as those Minimum Standards of Progress.

Undergraduate Student

Undergraduate degree-seeking students' academic status is assessed at the end of every term, whether the student is full-time or part-time for that term. A summer session is considered the same as a semester for the purpose of the following regulations:

1. In general, students will be placed on academic probation whenever their official UM grade-point average falls below 2.0 (C average). Some academic units may have a higher grade-point average requirement. New freshman admitted to UMKC on the basis of high school records, who have grade-point averages between 1.50 and 1.99 at the end of the first semester of either full- or part-time study will be placed on academic warning. Students on academic warning must achieve an overall C average by the end of their second semester or be placed on regular probation. They then would be subject to the regular probation requirements.

2. Students on academic probation will be restored to good standing when their UM grade-point average reaches 2.0 or the GPA level established by their academic units.

3. Students on academic probation must maintain the grade-point average required by their academic units during each subsequent semester or summer session while on probation. Otherwise, they are ineligible to re-enroll without the approval of the academic units.

4. Students on academic probation must remove themselves from probation within three successive semesters (including the semester in which they originally were placed on probation). Otherwise, they are ineligible to re-enroll without the approval of the academic units.

5. Students are responsible for knowing their academic status by referring to the term grade reports and their permanent academic records in the UMKC Records Office.

Graduate and Professional Students

Because there may be some variation in the academic and probation policies in the various graduate and professional schools within the University, reference should be made to the appropriate sections in this catalog.

Conduct

Institutional policy relating to conduct for veteran students is the same as for all other students. Statement of requirements is shown elsewhere in this catalog.

Student Records

Adequate records are kept by the school to show the progress of each eligible veteran. The records are sufficient to show continued pursuit at the rate for which enrolled and the progress being made.

These records include the final grade in each subject completed and a record of the date of withdrawal from any class the veteran does not complete. The last date of attendance must be reported to the Veterans Affairs.
No veteran will be considered to have made satisfactory progress when the veteran fails all subjects undertaken except with a show of mitigating circumstances, when enrolled in two or more unit subjects. This is immediately reported to Veterans Affairs. The determination for the continuance of benefits is made by the regional office of the Veterans Affairs.

**Notice of Nondiscrimination**

**Notice of Non-Discrimination**

UMKC does not discriminate on the basis of race, color, ethnic or national origin, sex, sexual orientation, gender identity, religion, age, ancestry, disability, military status, veteran status, in admissions, educational programs or activities and employment. The University complies with all federal and state laws and University of Missouri System policy regarding nondiscrimination and affirmative action, including Title IX of the Education Amendments of 1972, Section 504 of the rehabilitation Act of 1973, Title VII of the Civil Rights Act of 1964 and the state of Missouri Human Rights Act Chapter 213 RSMO.

UMKC considers any allegations of sexual harassment, sexual misconduct, sexual violence and sex/gender discrimination serious and will thoroughly investigate. Mikah Thompson is UMKC's Title IX Coordinator. Mikah can be reached at Thompsonmikah@umkc.edu or 816-235-6910.

Any person who feels they have been discriminated against or who have inquiries regarding this institution’s compliance with the foregoing regulations may contact UMKC’s Affirmative Action by visiting:

The Office of Affirmative Action
Administrative Center (http://www.umkc.edu/virtualtour/administrative-center.asp)
5115 Oak Street, Room 212
Kansas City, MO  64110

(816) 235-1771
http://info.umkc.edu/hr/affirmative-action/

**Policy on Student Records**

UMKC conforms to federal regulations known as the Family Educational Rights and Privacy Act, or FERPA. The purpose of FERPA is to provide rights to students and their families with regard to access and privacy of academic records. FERPA guarantees students at the postsecondary level the right to inspect and view their academic records. It also prohibits UMKC from releasing information from a student’s record to any third party unless the student authorizes the release.


**Student’s Right-To-Know**

In accordance with Public Law 101-542.

The UMKC Police Department publishes an annual campus report on personal safety and crime statistics. The report includes statistics for the previous three years concerning reported crimes that occurred on campus; in certain off-campus buildings owned or controlled by UMKC; and on public property within, or immediately adjacent to and accessible from the campus. The report also includes institutional policies concerning campus security, such as policies concerning alcohol and drug use, crime prevention, the reporting of crimes, sexual assault and other matters.

The report is available at the UMKC Police Department, Room 214B, 4825 Troost Building or via the Web site: http://www.umkc.edu/safetyreport.

Various state and federal laws, specifically the Higher Education Opportunity Act (http://www2.ed.gov/policy/highered/leg/hea08), require the University of Missouri—Kansas City to provide information and notice to students on a variety of topics. Federal disclosure requirements for student consumer information can be found at the following website: http://www.umkc.edu/registrar/procedures/student-consumer-info.asp.

**Telecommunications Services for the Speech and Hearing Impaired**

UMKC offices and departments may be reached through Relay Missouri, a telecommunications relay service for those who are hearing or speech impaired. Trained relay agents ensure the calls are completed. The toll-free Relay Missouri access numbers:

- (800)735-2966 (Text Telephone)
- (800)735-2466 (Voice)

**UMKC AIDS Policy Statement**

To address special needs of the University of Missouri-Kansas City, the following policy is in effect:
Faculty, staff and students should be aware that discrimination on the basis of race, color, religion, national origin, ancestry, sex, sexual orientation, age and handicap (to include AIDS), is prohibited by state law. All are expected to conduct university-related activities without any such discrimination. Failure to fulfill these obligations may subject faculty, staff and students to disciplinary action. Such action shall be taken in accordance with the following University of Missouri procedures: Rules of Procedure in Student Disciplinary Matters and the Dismissal for Cause Procedure.

Those who feel they may have been discriminated against may use the Grievance Procedure for Administrative, Service and Support Staff; Discrimination Grievance Procedure for Students; and Academic Grievance Procedures.

This statement is based on the recommendations of the Missouri Human Rights Commission and is in accordance with the statements of professional responsibility and codes of ethics of the Association of American Medical Colleges, the American Medical Association, the American Dental Association, and the National League of Nursing.
STUDENT SUCCESS SERVICES

Student Success Services

UMKC recognizes that in order for students to be successful in the classroom, students need to be supported outside of the classroom and throughout all stages of their college career: from their first connection with Enrollment Management services, through Academic Support, to Student Engagement. An enriching and engaging university life experience integrates with students' academic development to support students' success and graduation.

The University offices and programs listed below provide students with a wide variety of co-curricular services designed to support personal, academic, and professional development.

More details can be found in the UMKC Student Handbook (https://info.umkc.edu/saem/students/student-handbook). In addition, feel free to contact the Student Services Offices located in the Academic Units (https://info.umkc.edu/saem/students/student-handbook/student-services-offices).

You may also contact the UMKC Student HelpLine (https://info.umkc.edu/saem/helpline) at 816.235.2222 for questions about policies, procedures, resources, and general questions about the university.

Enrollment Management Services:

- UMKC Central (https://www.umkc.edu/central) is a one-stop place for students to take care of their core business transactions related to Admissions, Financial Aid and Scholarships, Cashiers and Collections, and Registration and Records.
- The Office of Admissions (https://www.umkc.edu/admissions) coordinates admission of undergraduate, graduate and professional programs, as well as visiting, community, and dual credit high school program applications to the university.
- To schedule a visit to UMKC, please visit the Welcome Center (https://www.umkc.edu/welcome).
- The Admissions Office serves domestic students, which include U.S. citizens, and students who have been granted Permanent Residency, Deferred Action Childhood Arrival (DACA), Assyilee, or Refugee status.
- The Office of Admissions coordinates orientation (http://www.umkc.edu/orientation) programs for new freshmen and transfer students. For freshmen starting in the Summer or Fall semesters, attending an orientation program is mandatory.
- International visa students should apply through International Student Affairs (https://info.umkc.edu/ISAO), which also provides immigration advising and orientation check-ins for new students and scholars.
- The Financial Aid and Scholarships Office (http://finaid.umkc.edu) provides financial assistance to students who otherwise would be unable to attend UMKC and administers campus-wide merit- and talent-based scholarship programs. The office is also charged with ensuring compliance with financial aid regulations and policies.
- Registration and Records (https://www.umkc.edu/registrar) provides accurate and professional registration and records services to ensure the integrity of official student records while enforcing academic policies.
- UMKC Student HelpLine (https://info.umkc.edu/saem/helpline) answers questions about policies, procedures, resources, and general questions about campus.
- The UMKC Student Veterans Virtual Resource Center (http://www.umkc.edu/veterans) is a comprehensive website dedicated to providing military Service-members and Veterans with tools and resources to be successful students.

Academic Support:

- Make sure you make an appointment to speak with Academic Advising (https://www.umkc.edu/registrar/majors-degrees/advising.asp) for your program.
- If you are undecided about your academic program, connect with University College (http://ucollege.umkc.edu).
- Academic Support and Mentoring (http://www.umkc.edu/asm) offers key support services, including:
  - Supplemental Instruction (http://www.umkc.edu/asm/umkcsi), which is an internationally-recognized peer-led learning program that targets historically difficult courses.
  - Math and Science Tutoring (http://www.umkc.edu/asm/mast), which provides free tutoring services for math, biology, and chemistry courses.
  - Be sure to check with your academic department for other program-specific tutoring resources.
- Need assistance with a writing assignment? Connect with the UMKC Writing Studio (http://www.umkc.edu/writingstudio).
- Tutoring for foreign language classes can be found in the Language Resource Center (http://cas2.umkc.edu/ForeignLanguages/LRC/default.asp).
- For more information about academic access and accommodations for students with a disability, contact UMKC’s Student Disability Services (http://info.umkc.edu/disability-services).
Student Success Services

- Find out how to prepare now for your future by visiting with UMKC Career Services (http://www.career.umkc.edu).
- Design your own undergraduate research (https://www.umkc.edu/searchsite) (SEARCH) project with a faculty mentor.
- Broaden your horizons with International Academic Programs (https://info.umkc.edu/international) for study abroad opportunities.
- Testing Services (https://www.umkc.edu/testingservices) provides a comprehensive offering of examinations for admission, licensure, and professional certification.
- The UMKC Bookstores are committed to finding the most affordable course materials to match a student’s learning style, including digital access and rental options. Get your textbooks, Roo Gear, school supplies, and technology at the Student Union Bookstore (http://www.umkcbookstore.com) or the Health Sciences Bookstore (http://www.umkc-hsbookstore.com).

Student Engagement:

- The Office of Student Involvement (https://info.umkc.edu/get-involved) provides co-curricular and leadership development opportunities for students.
- UMKC promotes and celebrates the diversity of our campus. Check out the resources and events programmed by these offices:
  - Multicultural Student Affairs (http://info.umkc.edu/multiculturalstudentaffairs)
  - Women's Center (http://info.umkc.edu/womenc)
  - LGBTQIA Programs and Services (http://info.umkc.edu/lgbt)
- Be sure to know your Student Rights and Responsibilities regarding student conduct (https://info.umkc.edu/saem/students/student-conduct).
- The UMKC Title IX Office (https://info.umkc.edu/title9) helps students, faculty, staff and visitors get the support they need if they experience sex-based discrimination including: sexual harassment, sexual misconduct, stalking on the basis of sex, intimate partner and/or relationship violence, and sexual exploitation.
  - UMKC's Violence Prevention and Response (http://info.umkc.edu/vpr) program provides support, advocacy, awareness education, and prevention training to help end sexual violence and harassment.
  - If you have any questions about Title IX, or to report an incident, contact the UMKC Title IX Coordinator, Mikah Thompson at 816.235.6910.
  - If you get sick or have a health question, contact Student Health & Wellness (http://info.umkc.edu/studenthealth) to make an appointment.
  - UMKC Counseling Services (http://www.umkc.edu/counselingcenter) are available for all students if you need to talk things through with a caring, confidential professional.
- Explore the on-campus housing facilities offered by Residential Life (https://info.umkc.edu/housing)—more than just a home-away-from home, our facilities provide an ideal living and learning environment.
  - Check out the fitness classes and workout facilities offered by Swinney Recreation Center (http://www.umkc.edu/src). There is also an annex at the Hospital Hill Apartments.
- The UMKC Student Union (https://www.umkc.edu/union) provides a welcoming and sustainable environment that values the diversity of all UMKC students, serving as the campus living room and central hub for student programming and engagement.
- The Atterbury Student Success Center (https://www.umkc.edu/success) provides a central location for specially designed to promote academic success. The offices located in the Student Success Center work together seamlessly to provide students with the support they need to develop, grow and graduate.
UMKC ONLINE

UMKC offers a number of online courses and programs. The current schedule of online courses can be found on the Registrar’s page at: https://www.umkc.edu/registrar/printable-online-class-schedule/. At this site, you can also take a short assessment to see if an online course is right for you.

Online courses can take a variety of forms, from online synchronous to online asynchronous. Make sure you understand the requirements for each type of online course before you register. Definitions used for the delivery of online courses at UMKC can be found at the Registrar’s page under the Codes and Definitions tab at: http://www.umkc.edu/registrar/procedures/room-scheduling.asp#anchor-6

Additional information related to online training, courses, tutoring and other resources that support online learning can be found at the UMKC Online homepage located at: www.umkc.edu/online (http://www.umkc.edu/online).
UNDERGRADUATE ACADEMIC REGULATIONS AND INFORMATION

The Registration & Records Office (Web site http://www.umkc.edu/registrar) maintains all official academic student records. Additional responsibilities of this office include scheduling of classrooms, certifying student academic information, evaluating domestic transfer work, and reporting enrollment statistics to state and federal agencies. The Registration & Records Office, in cooperation with the academic units on campus, assumes the responsibility for monitoring and enforcing academic policies and regulations.

This section contains information on the general UMKC academic policies that apply to all undergraduate students. The departments of the academic units may have more specific rules and requirements. Students are required to learn and abide by the policies of their academic unit in addition to the general policies.

Registration & Records Office
Administrative Center (http://www.umkc.edu/virtualtour/administrative-center.asp), Room 115
5115 Oak Street
(816) 235-1125
Fax: (816) 235-5513
registrar@umkc.edu
http://www.umkc.edu/registrar/
http://pathway.umkc.edu/
http://www.umkc.edu/quickguide

Mailing Address
University of Missouri-Kansas City
Registration & Records Office
AC 115
5115 Oak Street
Kansas City, MO 64112

Registrar:
Amy Cole

Associate Registrar:
Amy Carlson

Assistant Registrar:
Amber Daugherty

Assistant Registrar:
Laura King

Academic Calendar

The University operates on the semester system with the academic year divided into fall, spring and summer semesters which are also called terms. Fall semesters are 16 weeks long and start in August and end in December. Spring semesters are 16 weeks long and begin in January and end in May. The 16 week semester is inclusive of the final exams week. Summer terms are 8 weeks long during the months of June and July.

Sessions are scheduled within a semester/term and may have durations other than 16 or 8 weeks. Courses are occasionally offered during the periods between semesters/terms in January, May, and August. These periods are called intersessions.

Professional and graduate programs may adhere to different academic calendars with the permission of the Provost.

Please refer to http://www.umkc.edu/registrar/acal.asp for the most up-to-date academic calendar.

Academic Loads, Full- and Part-Time Status

Full-Time Load

The optimal full-time course load for an undergraduate student is 15 credit hours. An undergraduate student who takes 15 credit hours each semester will be on track to complete their degree in 4 years. (120 credits / 4 years = 30 credits a year). The minimum enrollment required for full-time status
is 12 credit hours of coursework. For Summer sessions, six or more hours constitute full-time enrollment. The designation of full-time load is for academic purposes only and does not apply to assessment of fees.

**Overloads**

Undergraduate registration in more than 17 semester hours must be approved by the academic unit. For Summer sessions, approval is required for programs of 9 or more semester hours.

**Restricted Loads**

Limitations on the size of academic load for which students register may be imposed by the dean or faculty advisor. Students on probation generally are required to restrict their academic programs to a minimal full-time load until they have returned to good standing.

**Financial Aid - Summer Term - Academic Load Requirements**

Undergraduate degree seeking students who are enrolled in the summer term are required to be enrolled in a minimum of 6 hours in order to be considered half-time for loan eligibility in the Financial Aid & Scholarships Office and for loan deferment reporting to the National Student Clearinghouse.

**Academic Credit Hour Equivalencies Policy**

These equivalencies represent minimum requirements.

One academic credit hour delivered in the traditional didactic teaching/learning approach is equivalent to three hours of student work per week (1 hour of classroom or direct faculty instruction and a minimum of two hours out of class student homework – Carnegie Unit), typically delivered over a 15 week academic semester. One academic credit hour of classroom or direct faculty instruction is equivalent to 50 minutes of clock time, over 15 weeks of instruction (excluding the final examination period), for a total of 750 minutes of direct faculty instruction over the semester. A 1 credit didactic, lecture class must meet 750 minutes during the semester, excluding the final examination period. Therefore, a 3 credit hour didactic, lecture class must meet 2250 minutes during the 15 weeks of instruction in a typical semester, excluding the final examination period.

One academic credit hour for a laboratory class is equivalent to two scheduled hours of laboratory experience per week (total minimum of 100 minutes), typically delivered over a 15 week academic semester. One academic credit hour for a laboratory class shall consist of one thousand five hundred (1,500) minutes of learning experience in the laboratory. Where a course includes arranged hours, these generally take the place of the hours assigned to homework.

However, there are additional teaching/learning approaches that include, for example, clinical experiences, studio experiences, field studies, individual lessons, recitation/discussion that may follow a modification of the equivalencies for credit hour assignment. Those equivalency models are approved by each academic unit (school/college) dean. At least an equivalent amount of work in the traditional didactic teaching/learning approach is required for these additional types of academic learning activities.

For independent studies, practicum experiences, internships and directed readings academic credit is determined by standards and requirements established in each academic unit (school/college) that is dependent on the discipline/field of study, scope of the planned educational experience(s) and the academic experience and preparation of the student(s). Minimally, these learning experiences follow the model of requiring the student to work in the placement or devote focused study for 3 hours per week, for 15 weeks during the typical semester, to earn one academic credit hour. This translates to an estimated 45-60 hours of experience per semester for one academic credit hour. If a consistent academic equivalency is not established by the academic unit (school/college) for these types of teaching/learning experiences, an individual written agreement must be developed for each individual student experience. This written agreement will outline the scope of the work to be achieved, learning objectives/outcomes and the academic assessment standard to be applied. This written agreement must be approved by the respective chair/program director and dean. The respective dean’s office will be responsible for retaining the appropriate documentation.

Any equivalencies below these minimum equivalencies must be submitted in writing for review and approval by the Provost.

**Academic Standing**

- Academic Amnesty (p. 2325)
- Academic Probation and Ineligibility (p. 2326)
- Deans List (p. 2326)

**Academic Amnesty**

The University of Missouri-Kansas City has an amnesty policy to enable those students who did not perform adequately in their undergraduate enrollment within the University of Missouri System (UM System) to be given a second chance to pursue their undergraduate academic goals. The policy is as follows:

Students who are transferring or returning to the University of Missouri – Kansas City to pursue an undergraduate degree after an extended absence from all UM System schools (University of Missouri – Kansas City, Missouri S&T, University of Missouri-Columbia, and University
A student may apply for amnesty if the following two requirements are met:

1. Has not been enrolled at UMKC or any other UM System School at any time during the past two years
2. Applies for amnesty at the time of the application for readmission or before the end of the first semester of readmission if already readmitted

Amnesty will be implemented as follows:

- Grades for ALL courses taken in the period of time for which amnesty is requested will be removed from the grade point average if the request is approved. The student may not choose specific courses within a term or period.

- The original UM System grade will remain on the student's UMKC transcript, but will be marked by an "X" preceding the grade. For plus/minus grades, the plus or minus will be dropped and the base grade will be used. For example, grades of A, B+, B, B-...F would be changed toXA, XB, ...XF. These hours and grades will remain on the transcript, but will not count toward cumulative hours nor GPA, nor can they be used to fulfill any degree requirements, regardless of the original grade.

- UMKC Academic Amnesty actions will not alter or be recorded on the student's academic record or impact GPA calculations of the originating UM System School since this is a campus-based policy and varies by UM System School. However, UMKC's Academic Amnesty policy may be applied to terms completed at any UM System school contributing to the UMKC calculation of system-wide cumulative GPA.

- A statement "Grades granted amnesty by faculty committee action" (or similar) will follow the last course on terms granted amnesty.

- When amnesty is approved, changes to the transcript will be made after the fourth week of classes in the term in which the student re-enrolls. If the student withdraws before the end of that term, all course grades will be changed back to the grades that appeared prior to amnesty.

- Students can receive amnesty at UMKC only one time (for one or multiple terms recorded by any UM System School) in their lifetime.

Academic Probation and Ineligibility

Undergraduate degree-seeking students’ academic status is assessed at the end of every term, whether the student is full-time or part-time for that term. A summer session is considered the same as a semester for the purpose of the following regulations:

1. In general, students will be placed on academic probation whenever their official UM grade-point average falls below 2.0 (C average). Some academic units may have a higher grade-point average requirement. First time college freshman admitted to UMKC on the basis of high school records, who have grade-point averages between 1.50 and 1.99 at the end of the first semester of either full- or part-time study will be placed on academic warning. Students on academic warning must achieve an overall 2.0 average by the end of their second semester or be placed on regular probation. After that, they would be subject to the regular probation requirements.

2. Students on academic probation will be restored to good standing whenever the UM grade-point average reaches 2.0 or the GPA level established by their academic units.

3. Students on academic probation must maintain the grade-point average required by their academic units during each subsequent semester or summer session while they are on probation. Otherwise they are ineligible to re-enroll without the approval of the academic units.

4. Students on academic probation must remove themselves from probation within three successive semesters (including the semester in which they originally were placed on probation). Otherwise they are ineligible to re-enroll without the approval of the academic units.

5. Students are responsible for knowing their academic status by referring to Pathway and their permanent transcript.

Deans List

The Dean's List is a unit-based student-centric recognition of excellent academic performance. Students must complete a minimum full-time program of 12 graded hours to qualify for the dean's list. The credit/no credit option may not be used as part of the 12 graded hours. The permanent academic records for qualifying students are annotated to reflect this distinction. Official semester grades indicate students who are candidates for the Dean's List.

Criteria for determining the GPA required for a student to be included on their unit Dean's List will be determined by the unit Dean. The specific criteria will be published in the unit undergraduate catalog.

Dean's List criteria will be reviewed annually by each academic unit (College/School) and changes in requirements will be submitted in writing to the Registrar by February 1 each year for inclusion in the next academic catalog.

Undergraduate Admission Policy & Procedures

Administrative Center, Room 120
5115 Oak Street
Application for Admission

Qualified Students Seeking Admission

Qualified students seeking admission must submit:

1. Completed application form. Forms can be found online at http://www.umkc.edu/apply. Domestic students may contact the UMKC Admissions Office for a paper application. Domestic students include Permanent Residents and students who have been granted Assylee or Refugee status. International students apply through the International Student Affairs Office.
2. A nonrefundable application fee. The fee for domestic students submitting an online application is $35* (or $45 with a paper application); the international student application fee is $75.
3. High school transcripts with class rank (if applicant has fewer than 24 transfer college hours).
4. ACT or SAT score (if applicant has fewer than 24 transfer college hours).
5. Official transcripts from each previous institution where college coursework was attempted.

*After July 1, 2017, the application fee will be $45 for both online and paper applications.

Appeal of Admission Decisions

Students who are denied admission as a freshman or transfer to the institution may write a letter of appeal to the Director of Admissions, 5100 Rockhill Rd., Kansas City, MO 64110. Students who are denied readmission must direct their appeal to the appropriate dean's office of the school or college to which they were denied readmission.

Application Forms

Online Application Forms

Application forms and more information for

- Undergraduate Students
- Transfer Students
- Graduate and Professional Students
- International Students
Former Student Readmission

Application Forms

Paper application forms are available through the Admissions Office, International Student Affairs Office and the School of Graduate Studies.

Former Student Readmission

General

Former students who have not attended another institution since leaving UMKC and who were in good academic standing at the time they left, may be eligible to return to UMKC by completing a Request to Re-Enroll Form (http://www.umkc.edu/apply/return.asp). Students should contact the Office of Admissions at (816) 235-1111 or admit@umkc.edu to determine if they may re-enter without reapplication.

Former students who have attempted college coursework at another institution since leaving UMKC and now wish to return must apply for readmission (http://www.umkc.edu/apply/return.asp).

Academic Amnesty Policy and Procedures

See the Policies and Procedures section of this catalog.

Applicability of Previous Catalogs

Current admission requirements as outlined previously will apply to applicants for readmission. Fulfillment of the general degree requirements in effect at the time of original admission may be selected by readmitted undergraduate students instead of current requirements, provided not more than one calendar year plus one term has elapsed since the last enrollment at UMKC and that they have not interrupted UMKC work by completing 12 or more semester hours at another college or university.

Freshman Admission

Automatic Admission from High School

Admission to UMKC is designed to reflect a student's probable success at the University. Since fall 1997, UMKC has admitted students according to the Missouri Coordinating Board for Higher Education's (CBHE) category of "selective institution." Selective institutions admit first-time, full-time degree-seeking students and transfer students who have completed 24 or fewer credit hours, who attain a combined percentile score, resulting from the addition of their high school percentile rank and the percentile rank attained on a national normalized test, i.e. ACT or SAT, which equals or exceeds 120 points. Students achieving a score of 24 or better on the ACT College Entrance Examination, or its equivalent on the SAT, are automatically admitted to selective institutions.

The required ACT/class rank combinations are as follows:

<table>
<thead>
<tr>
<th>High School Class Rank Percentile</th>
<th>ACT Composite Standard Score</th>
<th>SAT CR &amp; M Standard Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>94 and above</td>
<td>17</td>
<td>820-850</td>
</tr>
<tr>
<td>86-93</td>
<td>18</td>
<td>860-890</td>
</tr>
<tr>
<td>78-85</td>
<td>19</td>
<td>900-930</td>
</tr>
<tr>
<td>69-77</td>
<td>20</td>
<td>940-970</td>
</tr>
<tr>
<td>62-68</td>
<td>21</td>
<td>980-1010</td>
</tr>
<tr>
<td>54-61</td>
<td>22</td>
<td>1020-1040</td>
</tr>
<tr>
<td>48-53</td>
<td>23</td>
<td>1050-1080</td>
</tr>
<tr>
<td>47 and below</td>
<td>24</td>
<td>1090 or higher</td>
</tr>
</tbody>
</table>

Admitted students are expected to have followed a college-preparatory curriculum that includes at least 17 units of credit (with each unit equaling one year in class), as follows:

- Four units of English, one of which may be in speech or debate (two units emphasizing composition or writing skills are required).
- Four units of mathematics (Algebra I or higher). This requirement may be satisfied by the completion of courses in middle school, junior high or senior high.
- Three units of science (not including General Science). The three units of science must include a laboratory course and must include units from at least two of the following areas: physical science, biology, physics, chemistry and earth sciences. This requirement may be satisfied by the completion of courses in middle school, junior high or senior high.
• Three units of social studies.
• One unit of fine arts, to be taken in visual arts, music (e.g., band, orchestra, music appreciation, music theory), dance or theater.
• Two units of a single foreign language or American sign language. This requirement may be satisfied by completion of courses in middle school, junior high or senior high.

Missouri Enhanced Admission
Any student attending a Missouri high school who ranks in the top 10 percent of his or her graduating class and completes the college preparatory curriculum which includes at least 17 units of credit (four units of English, four units of math, three units of social studies, three units of science, two units of foreign language and one unit of fine art), will be eligible for automatic admission to any of the University of Missouri campuses. An ACT/SAT score is required to be submitted by each student who applies to the University.

Further, any student who graduates from a school that does not rank its graduates, but who has taken a college preparatory curriculum which includes the 17 units of credit noted above and who achieves a 3.5 GPA on a 4.0 scale in these core courses will be eligible for automatic admission to any of the University of Missouri campuses. Again, an ACT/SAT score has to be submitted by each student who applies to the University.

Additional Freshmen Admission Considerations
The University seeks a heterogeneous body reflecting diversity of race, ethnicity, age, geography (national and international) and talent. Factors given prime consideration for admission to undergraduate study are an applicant’s previous academic success and the quality of the record submitted. Additional factors may include:

• Extensive extracurricular activity involving school, church or community.
• Outstanding talent and/or ability.
• Number and scope of college preparatory courses.
• Evidence of marked improvement over time in the applicant’s high school academic record.
• Significant work experience and/or family responsibilities.
• Supporting evidence attesting to one or more of the above, submitted by the student.

Additional Requirements
Applicants for the Conservatory of Music (p. 1539), Engineering programs (p. 713), School of Pharmacy (p. 1740), and baccalaureate/M.D combined programs should consult the appropriate sections of this catalog for additional requirements.

Freshmen not meeting the requirements for regular admission will be reviewed for Trial Admission (p. 2333).

Heartland Rate

Heartland Rate
With the Heartland Rate (https://www.umkc.edu/heartland-rate), undergraduate students from these states pay 150% of in-state tuition, which represents a $10,000 value:

• Arkansas
• Illinois
• Indiana
• Iowa
• Kentucky
• Michigan
• Minnesota
• Nebraska
• North Dakota
• Ohio
• Oklahoma
• South Dakota
• Tennessee
• Texas
• Wisconsin

Rates are effective beginning in Fall 2018 for undergraduate students.* Residency rules apply. Rates will be applied automatically for students in the Heartland Rate states, including those who have already been admitted.
To learn more about the Heartland Rate, contact our Admissions team (admit@umkc.edu?subject=Heartland Rate inquiry from website) today.

* Savings amount of $10,000 is based on cost of tuition for full-time non-resident undergraduate students taking 30 credit hours annually. Graduate and professional medical, dental, pharmacy and law students are not eligible. If you are an undergraduate student currently receiving a discount through the Midwest Student Exchange Program (MSEP), you will now receive the Heartland discount. Some graduate and professional students are still eligible for the MSEP rate. Find out more (http://msep.mhec.org/institution/university-missouri-kansas-city) about whether your program is included.

Kansas Rate

Why offer the Kansas Rate (https://www.umkc.edu/kansas-rate)? Because we know the cost of college isn’t just about tuition. By using the Kansas Rate, you’ll save nearly $14,000 each academic year – money you can use on textbooks, technology, housing or just the cost of life.

Rates are effective beginning in Fall 2018 for undergraduate students.* Residency rules apply. Rates will be applied automatically for Kansas residents, including students who have already been admitted.

To learn more about the Kansas Rate, contact our Admissions team (admit@umkc.edu?subject=Kansas Rate inquiry from website) today.

Graduate students in the following Kansas counties are still eligible for the in-state rate:**

- Atchison
- Douglas
- Franklin
- Jackson
- Jefferson
- Johnson
- Leavenworth
- Miami
- Osage
- Shawnee
- Wyandotte

* Savings amount of $14,000 is based on cost of tuition for full-time non-resident undergraduate students taking 30 credit hours annually.

** In-state rates are not in effect for graduate students pursuing professional degrees in medicine, dentistry, pharmacy and law.

Policies on Admission of International Students

General Admission Policies

International students are expected to meet the requirements for admission from secondary schools or from other colleges and universities as outlined below. Permanent Residents and students who have been granted Refugee or Assylee, or DACA status apply through the Office of Admissions.

International students from secondary schools are expected to have an above average secondary school record and proof of adequate English proficiency, as well as a written statement of purpose.

International transfer students from other accredited colleges or universities must have above-average grades in all previous college study. Only credit appropriate to the curricula at this institution will be accepted toward a degree. Students transferring from other institutions in the United States must submit the International Transfer Form or other evidence of release from the previous program by their former foreign-student advisors and the equivalent of one semester’s work at those institutions before admission will be granted.

An official statement of finances indicating sufficient funds available to meet all educational and other fees and living expenses for the duration of the studies is required.

A $75 application fee for new/renewal applicants is required. Application fees are non-refundable.
Priority Deadline for Application for Admission - International

UMKC generally follows a "rolling admissions" policy: i.e., admission action is taken as soon as the application file is complete. All international students should apply for admission (this includes taking all necessary tests and filing all required application forms and academic records) by the following priority deadlines:

Fall Semester: March 1
Spring Semester: Oct. 1
Summer Session: January 1

For application for assistantships, scholarships, etc., the priority deadline is Feb. 1. Several academic units have different deadlines as outlined in the current admission application materials.

UMKC reserves the right to consider applicants for the most appropriate semester.

Required Academic Records - International

Students must provide complete and official certificates of all degrees, diplomas, mark sheets, grade reports and examination records. Secondary-school records must be submitted as well as college/university transcripts or credentials. All previous undergraduate work must include syllabi of courses taken with literal translations. If documents are in another language, applicants must also provide a literal English translation.

English Proficiency Requirement

International students are required to establish proof of adequate English proficiency as part of the admission process. However, some academic units allow conditional admission consideration (see "Conditional Admission" section below).

Applicants from countries in which English is not the native language (or if it is one of the official languages but is not necessarily the first language of the majority of the population) are required to present satisfactory Test of English as Foreign Language (TOEFL) scores or International English Language Testing System (IELTS) Scores to satisfy this requirement. The minimum score is 61 iBT (internet Based Test) or a score of 5.5 on the IELTS.

Exceptions to this policy:
1. Non-native speakers from post-secondary institutions in English-speaking countries [the full list of countries may be found here (http://info.umkc.edu/ISAO/wp-content/uploads/2015/06/Countries-Exempt-from-TOEFL-or-IELTS.pdf)] provided they have spent a minimum of two years or a total of 60 credit hours in successful full-time study and English was the medium of instruction.
2. UMKC accepts successful completion of ELS Language Centers Level 112 in lieu of TOEFL or IELTS.

For TOEFL information contact

TOEFL Services
The Educational Testing Service
PO Box 6151
Princeton, NJ 08541-6151 USA
http://www.ets.org/toefl

Request official TOEFL scores be sent to UMKC’s institution code 6872.

For IELTS contact

The International English Language Testing System
http://www.ielts.org

Request official IELTS scores be sent to

UMKC International Student Affairs
Student Success Center, G-04
5000 Holmes Street
Kansas City, MO 64110

Other Admission Policies - International

Credit by Examination/Transfer Credit

For information on UMKC credit by examination policy, the transfer credit policy and course equivalency tables, the student is referred to the International Student Affairs Web site (http://info.umkc.edu/ISAO/future-students/transfer-credit)
Admission Deferral
An offer of admission, granted on a regular basis for a given term, may be deferred for up to one calendar year from the term first granted. However, if the applicant attends another college or university after the original offer of admission, a new application must be submitted and official transcripts of the additional work must be furnished.

Applicants must request such a deferral for a specific term by contacting International Student Affairs. This request should be submitted through ISA's website at http://info.umkc.edu/ISAO/admitted-students/deferred-admission. Individual financial support documentation must be renewed annually.

Provisional Admission - International
International Student Affairs is authorized by certain academic units to admit on a provisional admission basis when certain applicants have not been enrolled at UMKC before. This category of admission is designed for use just before a given term pending receipt of credentials and the determination of eligibility for regular admission.

Conditional Admission
Students with no TOEFL or low TOEFL may be considered for admission to certain academic programs. Contact International Student Affairs.

Post-Bachelor’s Classification - International
If international students do not want to work toward an advanced degree or are ineligible for graduate-level credit, they may be considered for admission as bachelor’s degree students if they file credentials with International Student Affairs that indicate an undergraduate degree has been earned from an accredited institution. Students may take undergraduate-level courses numbered 300 or 400 for undergraduate credit while in that status, but they may not enroll in courses numbered 500 or higher. In general, the previously outlined policies for admission of transfer students are applicable.

Exceptions - International
Exceptions to admission policies must be approved by the appropriate authority in the college or school to which the students are applying. International Student Affairs should be contacted regarding forms and procedures.

Registration with International Student Advisor
Admitted international students must first report to International Student Affairs for a check-in session prior to their first registration at UMKC. Once admitted, international students must show proper and regular progress toward their degrees.

Health Insurance
At each registration session, international students must present health insurance containing repatriation and medical evacuation. Effective fall 1998, international students are required to purchase exclusive, mandatory UMKC health insurance.

English Proficiency Evaluation
All international students subject to the TOEFL/IELTS requirement must be evaluated (unless they have scored 100iBT or higher on the TOEFL or 6.5 or higher on the IELTS) by the Applied Language Institute staff at UMKC regarding the level of their English proficiency. If any weakness in that level of proficiency is revealed, appropriate coursework will be required to assure that the student’s success is not jeopardized.

More Information
International applicants to undergraduate programs who want more information and forms to apply for admission can go to http://www.umkc.edu/isao or write to

UMKC International Student Affairs
Student Success Center, G-04
5000 Holmes Street
Kansas City, MO 64110 USA

Forms to apply for undergraduate admission can also be downloaded from the following website: http://info.umkc.edu/ISAO/future-students/apply/.

Policies on Regular Admission - Medicine

General
The School of Medicine’s Council on Selection carefully reviews applicants to the six-year combined baccalaureate/M.D. program. Academic potential, as evidenced by the quality of high school courses, rank in class and admission test scores, and personal qualities such as leadership in school or community, stamina, reliability, motivation for medicine and range of interests, are considered. Applicants who appear to be well qualified are invited to the UMKC campus for interviews. If invited, the applicants are notified in writing and required to be present at the scheduled date and time of
Admissions Test - Medical Program

The American College Testing Program, called the ACT, examination is required for all in-state applicants. The Scholastic Aptitude Test, called the SAT, is accepted for out-of-state applicants in some instances.

Deadline for Application - Medical Program

The deadline for application for Year 1 is Nov. 1 of the year preceding the one for which the student is applying. By this date, a completed application form must be received, and all other required credentials, application supplements, test scores, references and six-semester high school transcript, should be in process and sent as soon as possible. The earliest date for applying is Aug. 1 of the year preceding entry.

Other Requirements - Medical Program

An advance deposit of $100 is required upon acceptance.

Special Admission Cases

Trial Admission

High school graduates who do not meet the standards for regular admission from high school may, in some cases, be admitted to the University on a conditional trial basis. If admitted, students may be required to participate in an academic support program as a condition of their admission. The student must earn a 2.0 grade-point average to be eligible to enroll the following semester.

Students can choose from several options during their senior year in high school or the summer before their freshman year to be considered for regular admission:

• Take coursework in the required area during the summer prior to the fall semester of their freshman year.
• Enroll in college-level coursework in the required area at an accredited community college or four-year institution.
• Complete the required coursework through correspondence or independent study.

Early Admission from High School

Superior high school students who have completed all of the requirements for graduation from high school but who will not receive a high school diploma until their class graduates will be considered for admission based on the criteria under Regular Admission from High School (p. 2328). The applicant’s high school principal or counselor must certify that graduation requirements have been met and written parental approval is required.

Dual High School-University Enrollment

High school students may be admitted in a special student category for the purpose of taking University courses concurrently with high school courses.

Students interested in enrolling in dual credit classes taken at their high school for both high school and college credit should contact the High School College Partnerships. (http://www.umkc.edu/hscp)

High school students wanting to take college courses on UMKC’s campus must submit a special application (http://www.umkc.edu/admissions/docs/hscertification-final.pdf) that includes high school authorization.

GED High School

Any individual may apply for admission on the basis of passing the General Educational Development (GED) tests. Passing scores must be achieved in each area of the GED. The student also is required to present an ACT composite score of 24. Students not meeting this criteria may be considered for a trial admission.

Home Schooled

Graduates of home schooled programs are required to have a minimum ACT composite score of 24 and completion of the 17 units of college-preparatory curriculum. Students not meeting this criteria may be considered for a trial admission.

Mature Adults

Students who graduated high school five or more years ago and have not attempted college level course work may apply for admission without submitting ACT or SAT scores.
Timing of Applications

The Office of Admissions will begin accepting admission applications June 1 of the year preceding the Fall Semester for which the student is applying. High school seniors will be evaluated on the basis of six or more completed semesters of high school work as well as standardized test scores (ACT/SAT).

Dates of Application

The preferred dates for admission application from high school are as follows:

- Fall Semester: Feb 1
- Spring Semester: Nov. 1
- Summer Session: May 1

However, applicants are urged to apply well before the above dates. To be considered for scholarships, students should be admitted by Feb 1. Some academic units have earlier deadlines. Refer to those sections of the catalog.

Six-Year Medical Program

Students interested in applying to the Six-Year Medical Program should refer to the School of Medicine section of the catalog to get information on application deadlines.

PharmD. Program

Students interested in applying to the PharmD. program should refer to the School of Pharmacy section of the catalog to get information on application deadlines.

Transfer Admission

Students who have completed 24 or more semester hours of college-level work are eligible for admission if they have attained an overall grade-point average (GPA) of at least 2.0 (on a 4.0 scale) in all college-level courses attempted at previous institutions.

Note: Academic units may have more stringent requirements. Check the section of the catalog that describes the degree program and major you are seeking.

Regular Admission

Students transferring from other colleges or universities should submit the following to the Office of Admissions:

1. Completed UMKC application form at http://www.umkc.edu/admissions/apply. Domestic students, including Permanent Residents, Asylees, and Refugees, apply through the Office of Admissions; International students apply through International Student Affairs. Contact the appropriate office for paper application forms.
2. Nonrefundable application fee. The fee for a domestic online application is $35*; paper application fee is $45. International student application fee is $50.
3. Official transcripts from all colleges and universities where coursework was attempted.

* Application fee will be $45 beginning July 1, 2017.

A transferring student who has completed fewer than 24 hours of college-level coursework must apply under the procedures for admission as a freshman and must have at least a 2.0 overall GPA in all college work attempted. These students must submit the following to the Office of Admissions:

1. High school transcript with class rank and ACT score (if less than 24 college credits).
2. Official transcript of all college courses completed and courses in which the student is currently enrolled.

Special Admission

Transfer students who do not have a 2.0 GPA are welcome to apply for admission; however, admission is not guaranteed and a student may be admitted on a probationary status.

Transfer Within the University of Missouri System

Students may transfer among campuses within the University of Missouri System. Any course that leads to an undergraduate degree on any campus of the University of Missouri System is accepted in transfer toward the same degree on each campus of the UM System offering that degree.
Students will have two cumulative grade-point averages. One is the campus GPA that will be calculated by procedures defined at the campus. The second is the University of Missouri GPA, which will include all grades and credits attempted at any University of Missouri campus, including all grades, credits and points for any courses that are repeated.

Any student attempting to transfer between University of Missouri campuses to UMKC should be aware that their cumulative University of Missouri GPA will be used to determine their admissibility.

**Transfer of College Credit from Other Colleges and Universities**

Refer to the Undergraduate Academic Regulations and Information section of the catalog.

Students who have completed an associates degree (AA or AS) from an accredited college or university and have a cumulative GPA of 2.0 (on a 4.0 scale) are admissible to the University, but not necessarily to specific programs. For the additional admission requirements of specific degree programs, refer to the appropriate sections of the catalog.

Articulation agreements and transfer equivalency tables can be found at http://www.umkc.edu/admissions/transfer.asp.

**Visiting and Community Student Admission**

Students from other institutions who wish to attend UMKC to transfer courses back to their home institutions may be admitted as Visiting Students for a term. Students are encouraged to check with officials at their home institution to guarantee that UMKC courses are transferable and fulfill their program’s degree requirements.

Students who are members of the community and who do not wish to earn a degree at UMKC, but are not currently seeking a degree at another institution, may apply as Community Students. Students may obtain a Visiting/Community Student Application form at http://www.umkc.edu/apply/visiting.asp or from the Office of Admissions. Not all academic programs are open to visiting/community students. Some academic units require that the non-degree seeking student be certified by the home institution as a student in good standing. Consult the application for specific program and course eligibility.

Students participating in the KCASE program are required to submit a visiting student application.

**Policy on Admission Credentials**

All credentials submitted in support of the application for admission become the property of UMKC.

**ALEKS Math Placement**

In order to qualify to take MATH 110, MATH 120, MATH 125, MATH 206, MATH 210, MATH 216, MATH 244 or STAT 235 at the University of Missouri-Kansas City, students must have one of the following:

- a minimum ALEKS Math Placement (http://www.umkc.edu/mathplacement/prerequisite.cfm) score (see http://www.umkc.edu/mathplacement/prerequisite.cfm)
- credit for the prerequisite course taken at UMKC, or credit for a course transferred to UMKC as equivalent to the prerequisite course; in either case, a sufficiently high grade must have been obtained in the prerequisite (see the catalog descriptions for each course for specific prerequisite requirements).
- AP/IB credit for a prerequisite course

**Note:** *Courses offered outside the Department of Mathematics and Statistics do not fall under the above guidelines. Check with the appropriate department for prerequisite requirements for those courses.***

**About ALEKS:**

ALEKS is an artificial-intelligence based assessment tool that measures strengths and weaknesses of a student’s mathematical knowledge, reports its findings to the student, and if necessary provides the student with a learning environment to help bring this knowledge up to an appropriate level for course placement.

The University of Missouri-Kansas City requires an ALEKS mathematics placement assessment to determine readiness for various courses. The ALEKS Placement Assessment covers material from Basic Math through Precalculus and will take approximately 90 minutes to complete. You will login to take the assessment online through the following link: http://www.umkc.edu/mathplacement/takeALEKS.cfm . There is a $22.50 fee that will be charged to your account upon taking the assessment.

You will be given up to 5 chances to take the ALEKS assessment, and will also be provided with a Prep and Learning Module that will allow you to review and practice your math skills upon completing the assessment. If you require access to the ALEKS assessment after your initial subscription has expired, you will have to purchase additional access.
For more information about ALEKS, please visit the following website: http://www.umkc.edu/mathplacement/default.cfm

Attendance Policy

- Students are expected to attend and participate in classes.
- In order to comply with federal regulations associated with eligibility rules for federal financial aid, students not attending a course during the first three weeks of the term will be administratively dropped from the specific course.
- Advance notice of attendance policies of academic units and individual instructors should be given, and such notice should be in writing.
- Students should notify instructors of excused absences in advance, where possible.
- Students who have an excused absence are expected to make arrangements with instructors for alternative or make-up work. Such arrangements should be made in advance of the absence, where possible.
- Instructors should accommodate excused absences to the extent that an accommodation can be made that does not unreasonably interfere with the learning objectives of the course or unduly burden the instructor.
- Attendance policies shall be applied in a non-discriminatory manner.
- Enrollment as a student is required to attend any class unless otherwise pre-approved by the instructor.
- Instructors are responsible for verifying the class roster in Pathway throughout the term.

Each academic unit and instructor may adopt an attendance policy appropriate to that unit, a particular field of study, or for a specific course. Such policy or policies must be consistent with the general principles, and must give students advance notice in writing. In the case of an academic unit, notice may be given in the appropriate section of the General Catalog, or in other materials provided to students for the purpose of informing them of the rules and regulations of the academic unit. In the case of an individual instructor, notice of an attendance policy should be given in the course syllabus.

If neither the academic unit nor the instructor has adopted an attendance policy, or if proper advance notice of the attendance policy was not given, the UMKC general attendance policy will govern. The general attendance policy is that students shall not be penalized for excused absences. “Excused absences” include absences due to illness of the student, illness of an immediate family member for whom the student must care, death of an immediate family member, religious observance (where the nature of the observance prevents the student from being present during class), representation of UMKC in an official capacity, and other compelling circumstances beyond the student’s control. Students seeking an excused absence must provide documentation upon request to substantiate the excuse. Students with excused absences shall undertake appropriate make-up or alternative work to be provided by instructors of the courses in which excused absences were incurred.

Complaints concerning the application of an attendance policy or an instructor’s attendance policy should be raised with the Department Chair of the instructor or with the Dean if there is no Department Chair or the instructor is the Department Chair. If the student or instructor is not satisfied with the resolution of the complaint, the matter may be appealed to the Dean and to the Division of Academic Affairs. Complaints concerning the adoption or modification of an attendance policy by an academic unit should be raised with the Division of Academic Affairs. Complaints are to be promptly addressed at each level of review.

This policy was approved July, 2002 and effective Fall, 2002; Revised Fall 2012; Revised Fall 2016

Classification of Students/Student Levels

Undergraduate students are classified by the number of semester hours completed at the beginning of each semester. A student with:

- Fewer than 30 credit hours completed is classified as a freshman.
- Fewer than 60 but at least 30 credit hours completed is classified as a sophomore.
- Fewer than 90 but at least 60 credit hours completed is classified as a junior.
- At least 90 credit hours completed is classified as a senior.

A student who has completed a bachelor’s degree and enrolls only for undergraduate credit will be classified as a senior.

Course Numbering and Reuse Policy

Courses are numbered according to the following plan:

Course Numbering
000#099 Remedial Courses (No college credit)
100#299 Lower Level Undergraduate Courses
300#499 Upper Level Undergraduate Courses (Some upper level courses may be taken for graduate credit)
500#2999 Currently Not Used
3000#4999 Dental Hygiene Undergraduate Courses
5000#5999 Graduate Level Courses
6000#6999 School of Dentistry Courses
7000#7999 School of Pharmacy Courses
**Reuse of Course Numbers for New Courses:**
Currently, a course number that has been used previously for a course in a specific discipline and subject cannot be reused. With the growing numbers of Academic Units running out of numbers in select subjects, it has been proposed that course numbers can be reused if these course meet the following criteria:

1. The Subject and Course Number have been inactive and not printed in the catalog for a minimum of 20 years
2. There is no duplication of the course listed under a different subject and class number

**Electronic Grade Change Policy**

Electronic grade changes can be completed by the instructor of record or by the Chair of the Department or the Dean of the Academic Unit via the online student information system. The deadline to initiate an electronic grade change must occur within one calendar year after a term has ended.

The following dates are applicable to all calendar year semester grade changes:

- May 31 for the previous **Spring Semester**
- July 31 for the previous **Summer Semester**
- December 31 for the previous **Fall Semester**

Approved reason codes must be used for all electronic grade changes.

Electronic grade changes cannot be submitted for the following types of changes. These require the use of a hard copy Grade or Course Change form for Past Terms.

- Changing the credits associated with a course
- Changing the grading basis associated with a course
- Student has graduated
- Retroactively adding, deleting, or swapping a course

Electronic grade change reports will be available to run on demand by each Academic Unit to notify Deans and Department Chairs when grades have been changed on a student’s record. The Registrar will send a grade change report at the end of every semester to capture all grade changes that have been submitted online.

Grade changes requested after one year will require a written appeal by the instructor and a signature from the Dean. The Registrar will review the grade change request and work with the Provost’s office to determine the acceptance of the instructor grade appeal.

**Final Exam Policy**

It is expected that every faculty member meet their classes during the scheduled final exam period in the scheduled room(s) for the final examination or other approved instructional activity.

Whenever circumstances make necessary a deviation from the announced final exam schedule, approval for such deviation must be obtained by the appropriate department chair and unit academic dean as well as the Registrar.

Faculty should remain available to students throughout the entire semester (including finals week). If circumstances necessitate faculty unavailability at any time during the semester, students should be notified, in writing, with alternate contact information (i.e., department head).

The Provost reserves the right to alter the final exam schedule due to extenuating circumstances.

Students having more than three final exams scheduled on one day may submit a written request to their Academic Dean’s Office to reschedule an exam. The Dean’s Office will coordinate with faculty to reschedule the exam.

**Grading Options and Auditing Courses**

**Auditing a Course**

A student must be admitted to the university and obtain the consent of the instructor in order to audit a course. Courses that ordinarily may not be audited are studio courses in art, performance courses in the Department of Communication Studies, continuing education courses, and laboratory courses in the sciences. Students do not receive credit when auditing a course, and audited courses do not count toward enrollment status requirements (full-time, half-time).
A student registered in a course for audit is expected to attend class and to pay full tuition and fees. Providing feedback to the auditor is at the discretion of the instructor. An auditor may be administratively withdrawn from a course at any time during the semester when, in the judgement of the instructor and upon approval by the dean, the attendance or participation record justifies such action.

**Change from Audit to Credit**

Students may change status in a course from audit to credit during the first week of the term provided they have approval of the faculty and academic unit. This change must be initiated in the advising office of the appropriate academic unit and must be completed in the UMKC Registration & Records Office.

**Change from Credit to Audit**

Students may change their status in a course from credit to audit any time prior to the end of the fourth week of any Fall or Spring semester, or prior to the end of the second week of any summer session. This change must be initiated in the advising office and must be completed in the UMKC Registration & Records Office.

**Credit/No Credit Option**

Sophomores, juniors and seniors in good standing may elect to take one course per semester on a credit/no credit (CR/NC) basis. The credit/no credit option may not be used for courses in the major nor the minor, nor for courses taken to fulfill the general degree requirements. Students may not elect this option when they are repeating a course.

The credit/no credit option must be elected at the time of initial registration for a term and cannot be changed subsequently. A grade of C- or better must be earned to earn credit; D and F grades receive no credit. Grades of CR or NC do not earn grade points and they do not affect the grade-point average. Courses elected on this option are subject to regular academic regulations, including course load, withdrawal, etc.

The credit/no credit option is not available for students pursuing a bachelor of liberal arts degree.

**NR Grades**

If a student appears on a grade roster and stops attending class within the semester following the administrative drop timeline (first three weeks of class), a grade of NR (Not Reported) will be assigned to the student in lieu of an F. NR’s calculate in a student’s GPA just like an F.

**Grading**

The following is the +/# grading scale and grade point system used at UMKC. This +/# grading scale and grade point system is used by all faculty, in all undergraduate, graduate, and professional programs.

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Description</th>
<th>Points per Semester Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>The highest grade</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td></td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td></td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>Work of distinction</td>
<td>3.0</td>
</tr>
<tr>
<td>B-</td>
<td></td>
<td>2.7</td>
</tr>
<tr>
<td>C+</td>
<td>Average work</td>
<td>2.3</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>2.0</td>
</tr>
<tr>
<td>C-</td>
<td></td>
<td>1.7</td>
</tr>
<tr>
<td>D+</td>
<td>Passing, but unsatisfactory</td>
<td>1.3</td>
</tr>
<tr>
<td>D</td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>D-</td>
<td></td>
<td>.7</td>
</tr>
<tr>
<td>F</td>
<td>Failure without credit</td>
<td>0.0</td>
</tr>
<tr>
<td>NR</td>
<td>Not Reported</td>
<td>0.0</td>
</tr>
<tr>
<td>WF</td>
<td>Withdrew Failing</td>
<td>-</td>
</tr>
<tr>
<td>W</td>
<td>Withdrew; no academic assessment</td>
<td>-</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
<td>-</td>
</tr>
<tr>
<td>AT</td>
<td>Audit</td>
<td>-</td>
</tr>
<tr>
<td>CR</td>
<td>Credit only</td>
<td>-</td>
</tr>
<tr>
<td>NC</td>
<td>No Credit</td>
<td>-</td>
</tr>
<tr>
<td>P</td>
<td>Passing</td>
<td>-</td>
</tr>
<tr>
<td>S</td>
<td>Satisfactory</td>
<td>-</td>
</tr>
</tbody>
</table>
Beginning Fall 2012, a WF is not calculated in the GPA for undergraduate students.

Beginning Fall 2015, MATH 100 letter grades are not calculated in the cumulative GPA.

In terms prior to and including 1985, any of the above grades might be preceded by an R indicating a repeated course. These grades are not included in either total hours or the grade-point average. (Examples: RC, RD, RF.) Since 1985, all grades, including those in repeated courses, are included in the GPA calculation. For the 1993 Fall Semester, UMKC began using the plus/minus grading system for grades A, B, C, and D. The grade of A+ is valid only for students in the School of Law.

Grade Appeals

Students are responsible for meeting the standards of academic performance established for each course in which they are enrolled. The establishment of the criteria for grades and the evaluation of student academic performance are the responsibilities of the instructor.

This grade appeal procedure is available only for the review of allegedly capricious grading and not for review of the instructor’s evaluation of the student’s academic performance. Capricious grading, as that term is used here, comprises any of the following:

- The assignment of a grade to a particular student on some basis other than the performance in the course.
- The assignment of a grade to a particular student according to more exacting or demanding standards than were applied to other students in the course; (Note: Additional or different grading criteria may be applied to graduate students enrolled for graduate credit in 300- and 400-level courses.)
- The assignment of a grade by a substantial departure from the instructor’s previously announced standards as stated in the course syllabus.

Appeal Procedures

1. The student should first discuss the course grade fully with the instructor of the course. This must be done within six weeks after the beginning of the succeeding regular academic semester.
2. If the matter cannot be resolved by consultation with the instructor, the student should use the departmental grade-appeal procedure. Every academic unit (school, College or department) must have a set of appeal procedures that are to be made available to students on request. These procedures will specify the manner in which the departmental review of the challenged grade will be conducted.
3. If the matter is not resolved at the departmental level, an appeal can be made to the academic dean, in accordance with the school’s or College’s appeals process. The decision of the dean will be communicated to the student, the instructor and the department.
4. If the matter is not resolved within the school or College, the student may appeal to the Provost (https://www.umkc.edu/provost/downloads/StudentGradeAppealtoProvost.pdf). This appeal must be made within 10 consecutive calendar days after notification of the decision of the dean.
5. The Provost or designated representative shall review the full record of the case and appeal documents. At this level, the Provost may appoint an ad hoc academic appeals committee to review the record and provide advice on the matter. The decision of the Provost is final and will be communicated to the student, the instructor, the department and the dean of the school or College.

Grade-Point Average

The following minimum grade-point average policy applies to all undergraduate students:

- Students must maintain a 2.0 GPA in their coursework at the University of Missouri.
- Academic units may impose additional grade-point requirements.
- In general, the UM GPA is calculated by dividing the total grade points earned in courses on any UM campus by the total number of graded semester hours attempted. If a course attempted within UM is repeated, the previous hours and grade point remain in the student’s GPA. Courses taken credit/no credit, courses earning grades of S, P, I or AT, and courses transferred from non-University of Missouri institutions are not included in the UM GPA calculations.

Incomplete Grades

An instructor may assign the grade of I (incomplete) to students who have been unable to complete the work of the course because of illness or serious reasons beyond their control. An incomplete grade is appropriate only when enough work in the course has been completed for students to finish the remaining work without re-enrolling in the course or attending additional classes. The work must be completed within one calendar year or the incomplete grade will automatically lapse to an F. Students should not re-enroll in a class for which they earned an incomplete. Students may not earn a degree or graduate with an incomplete on their transcript.

Repeated Courses

When undergraduate students repeat courses, they can request to have only the grade for the final attempt used in calculating their GPA. THE COURSE REPEAT POLICY WILL NOT AUTOMATICALLY BE APPLIED TO A STUDENT’S GPA. After completing a retaken course, a student must submit a REQUEST FOR GPA ADJUSTMENT FORM to his/her academic advisor. The recalculation of a student’s GPA is reflected only in the calculation of that
student’s current cumulative GPA and will not retroactively affect calculations for dean’s list, graduation and honors, eligibility for financial aid and
veterans’ benefits and scholarships, athletic eligibility, discounts for insurance, or any other area.

- The GPA recalculation policy is applicable only to undergraduate students who repeat a course in which they earned a D+ or less and in which
academic dishonesty was not involved.
- Students can only replace grades if the original and the repeated course are taken at UMKC or another UM System school.
- The original course and the repeated course must be a direct equivalent.
- Repeated courses must be taken Fall 2007 or later.
- Repeated courses may not be taken on a CR/NC basis.
- Original grades cannot be replaced with a ‘W’, ‘I’, or ‘T’.
- No more than 15 semester hours can be dropped from the calculation of a student’s GPA by repeating course work.
- Requests approved for GPA recalculation will prefix the original grade with an ‘R.’ Transcripts will note that such grades are excluded from GPA
calculations.
- Courses cannot be repeated for credit towards the degree unless specifically noted.

Refer to the appropriate School or College section of the undergraduate catalog for information on specific rules for course repeats. Some academic
units may have more stringent requirements on course repeats.

Graduation

Students who anticipate graduating must file an application for graduation before the end of the fourth week of the semester in which they intend
to graduate. Commencement is optional and participating in commencement does not mean that a student has graduated. The application for
graduation triggers a degree check. The degree check is conducted following the recording of grades for the semester in which the student anticipates
graduation. All degree requirements must be fulfilled, including documentation of all requirements in UMKC’s Registration & Records Office before
the next semester after anticipated graduation begins. Diplomas may be picked up in person in the Registration & Records Office beginning 40 days
following the last day of the semester. Diplomas that are not picked up in person will be mailed two weeks after they are initially made available.
Replacement and duplicate diplomas can be ordered for a small fee from UMKC Registration & Records Office.

Application for Graduation

Written application for graduation is required and should be filed before enrolling in the final 30 credit hours of coursework. Students should turn
the graduation application form into their home School or College (Academic Unit). The academic unit will send the graduation application to the
Registration & Records Office. The application must be submitted no later than the deadline date published each semester in the on-line UMKC
Academic Calendar in order to graduate for that semester.

Awarding Posthumous Degrees

The University may grant undergraduate, graduate and professional degrees posthumously. If an Academic Unit determines that a deceased
student was academically eligible at the time and had completed sufficient coursework to earn a degree the Unit may recommend the awarding of a
posthumous degree.

Students who completed all Degree Requirements
The diploma for the degree that the student was pursuing will be prepared in the same manner as if the student had graduated. This diploma may be
presented to the family of the deceased in a special ceremony, at Commencement or in whatever manner is deemed appropriate.¹

Student Did Not Yet Complete Degree Requirements
If the student had not completed degree requirements but was making satisfactory progress at the time of death, a dean’s certificate honoring the
student may be provided by the appropriate academic unit(s). These certificates may be designed and presented in a manner that is fitting to the
circumstances.¹

¹ In some instances, presentation of the degree or certificate to family members may be made at a remembrance ceremony.

Changes in Degree Requirements

The University of Missouri reserves the right at all times to discontinue, modify or otherwise change its degree programs when it determines it is in the
best interest of the University. Students have the following options:

- Students who enter as first-time freshmen or transfer students may fulfill the degree requirements in effect at the time of their original admission
to their degree program, provided there has not been a lapse in attendance at UMKC of more than one consecutive calendar year plus one term.
• Students accepted into any two-plus-two program (between UMKC and a community college) may fulfill the degree requirements in effect at the time of their original admission to the community college, provided no more than two years have elapsed since that original admission and enrollment has been continuous.

• Students may fulfill degree requirements in effect at the start of their senior year, provided that they have not had a lapse in attendance during the senior year at UMKC of more than one consecutive calendar year plus one term.

**Constitution Requirement**

Section 170.011.1 of the Missouri Revised Statutes, 2015, states that all candidates for a degree issued by a college or university in the state of Missouri must have “satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the state of Missouri, and in American history and American institutions.”

Courses at UMKC that satisfy this state requirement are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 364</td>
<td>The Supreme Court And The Criminal Process</td>
<td>3</td>
</tr>
<tr>
<td>HISTORY 101</td>
<td>U.S. History to 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 102</td>
<td>U.S. History Since 1877 (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>HISTORY 360R</td>
<td>Constitutional History of the United States</td>
<td></td>
</tr>
<tr>
<td>HONORS 230</td>
<td>Honors American Government (Focus C)</td>
<td>1</td>
</tr>
<tr>
<td>POL-SCI 210</td>
<td>American Government (Focus C)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits: 3

1 Course may satisfy both the UMKC General Education Core (Focus C) and Constitution requirements.

There are a few other ways this requirement can be satisfied for students transferring to UMKC:

• Take an equivalent course from the list above at a regionally accredited institution.

• Earn credit for one of the above courses through AP, IB, or CLEP.

• Take a course that directly satisfies the Missouri Constitution Requirement at another Missouri institution.

• Have a previous bachelors degree (or higher) from a regionally accredited institution.

• Have an Associate of Arts degree from a regionally accredited institution.

• Complete the 42 Hour Core at a Missouri institution and have it listed on the official transcript.

**Declaration of Major**

Students may declare a plan of study (major and/or minor) and degree(s) at the time of admission. See the specific academic unit guidelines for admission requirements regarding declaration. If continuing students wish to change their plan of study or add additional plans, students must complete the Declaration of Major form from the UMKC’s Registration & Records Office and obtain signatures from the Academic Advising unit of the school or college.

Students admitted as Exploratory (undeclared) students or admitted with only a Pre-Professional designation (i.e. Pre-medicine, Pre-law) have not declared a specific major and/or degree at the time of admissions and therefore must declare a major by the hours specifically designated by the academic unit housing the degree(s).

**Exit Examinations**

**Exit Examinations**

**Major Field/ETS Proficiency Profile (ETS-PP) Participants:**
You may register for your exams online by clicking HERE. Exam dates are posted two weeks after classes start each semester. Registration requires access with your UMKC Student Email account ID and password. You will be given a listing of the dates and times. Reminder Emails are scheduled to be sent 1-2 days prior to your chosen test date.

Major Field and ETS-PP exams are scheduled and administered by the Office of Testing Services. If you have any problems with, or questions about, scheduling your exams, please contact testingservices@umkc.edu (testingservices@umkc.edu) or call (816) 235-5820.

ALL EMAIL COMMUNICATIONS REGARDING EXIT EXAMS ARE SENT TO YOUR UMKC STUDENT EMAIL ACCOUNT ONLY.

All students are required to take the ETS-PP exam after the completion of 90 hours and prior to graduation. There are three exceptions. One, if you have earned a Bachelor’s degree previously. Two, if you are a School of Education Bachelor’s degree-seeking teacher education student or a Bachelor
of Music Education student in the Conservatory of Music and Dance and have taken the entire C-BASE test and obtained a score of 235 in all five sections (English, Science, Math, Social Studies, and Writing). Three, if you are a School of Education Bachelor’s degree-seeking teacher education student or a Bachelor of Music Education student in the Conservatory of Music and Dance and have taken the MoGEA and achieved the following scores: English (220), Writing (193), Math (183), Science (202) and Social Studies (202). If you receive the Email notification to take this test and you have fulfilled one of these exceptions, contact Testing Services and we will input the exemption on your record.

Some degree programs require Major Field exams to be scheduled and administered through Testing Services Office: Biology BA, BS; Physics BA, BS; and Psychology BA. The schedule for these exams will also appear online for registration upon your individual access of the site. If you have any problems with, or questions about, scheduling your exams, please contact testingservices@umkc.edu (testingservices@umkc.edu) or call (816) 235-5820.

Exit exams are a degree requirement - if you fail to take your required exams before the end of the semester in which you plan to graduate, you will need to reapply for graduation. The University of Missouri Board of Curators, other state entities, and the national college accrediting agency require the University to assess the effectiveness of academic programs. All undergraduate students must take a test of general education and complete a major field test prior to being granted a baccalaureate degree. Graduation depends on completion of exit exam requirements.

Should you need to reschedule an exam, you may access this site and simply choose another date. This will automatically override the previously selected date. Click here for more information about ETS-PP and Major Field Exams (http://www.umkc.edu/testing/services/assessment.asp).

Graduation with Latin Honors

Students are eligible to be awarded their degrees with Latin honors (Summa Cum Laude, Magna Cum Laude, Cum Laude) as determined by each of the academic units (College/School) using fixed overall GPA requirements. These fixed GPA requirements will be reviewed annually by each academic unit (College/School) and changes in requirements will be submitted in writing to the Registrar by February 1 each year for inclusion in the next academic catalog.

Latin Honors may be published for commencement but will be provisional until the degree is conferred.

The calculation for Latin Honors will be made using the GPA of a minimum of the last 60 hours earned at UMKC, including all credits earned in the semester when the student reaches or exceeds 60 hours.

Because Latin Honors is calculated by GPA and there is only one GPA, there will only be one Latin Honors awarded regardless of the number of degrees the student earns.

Junior-Senior Hours

Undergraduate degree-seeking students are required to earn credit in at least 36 credit hours of coursework numbered 300 and above at UMKC. In the case of transfer credit, the coursework must be numbered as junior-senior level work by the transferring institution. For additional restrictions, please also see the Residence Requirements Policy (p. 2343).

Minimum Hours

The general minimum UMKC requirement in semester hours of acceptable college work for an undergraduate degree is 120 semester hours (150 for a double degree or a second degree). However, a number of undergraduate and first professional degrees have higher minimum requirements as indicated in the specific school’s section of this catalog. A minimum of 30 hours must be earned at UMKC, regardless of the number and level of hours earned at another institution.

UMKC graduates returning to UMKC to complete requirements for additional majors or minors, must complete all requirements for a second degree including the accumulation of a minimum of 150 hours. UMKC does not award stand-alone majors or minors on transcripts at any time. Transcripts will reflect all attempted courses, regardless of graduation status.

Multiple Major & Double Degree Policy

A multiple (double or triple) major may be earned when a student completes two or more full majors, generally within the 120 hours required for a single degree. The specific major requirements of each major must be fulfilled. The diploma will indicate all majors. If the two or more degree programs are administered by different academic units, the major requirements of each academic program must be fulfilled. The general education requirements must be fulfilled as specified by the department or academic unit responsible for the primary major only. The double or multiple major is only available in B.A./B.A. or B.S./B.S. combinations.

A double degree may be earned when a student completes a minimum of 150 hours, completing the general education and major requirements for each of two majors. Students who earn a double degree will receive two diplomas simultaneously. If the two degree programs are administered by different academic units, the general degree requirements and major requirements of both academic units must be completed.

The B.A./M.D. dual degree program has different requirements and is subject to separate regulations. See the School of Medicine section of the catalog.
All dual degree programs must follow the established guidelines in the UMKC catalog.

**Residence Requirements**

Candidates seeking undergraduate degrees from UMKC must meet the following minimum residence requirements*:

1. Must be admitted and academically eligible to enroll in the College or School during the semester in which the degree is awarded.
2. Successfully complete through UMKC at least 30 credit hours of course work.
3. Successfully complete through UMKC at least 12 hours of upper division credit (300+) required by the recorded major(s) to be awarded.
4. If pursuing a minor, successfully complete through UMKC at least 6 credit hours required by the recorded minor(s) to be awarded.

*Academic units may have additional residence requirements.

**Time Limit on Degree Credit**

Credit over 15 years old at the time of application for graduation may not be applicable to a degree. Such credit may be subject to validation, at the discretion of the school/department involved, before it can be used to satisfy degree requirements.

**Leave of Absence Policy**

UMKC's Leave of Absence Policy provides a means for students to take an approved leave of absence from a degree program without being required to go through the re-admission process upon return to the University. Students who are approved for a leave of absence will be allowed to register for classes during the “priority registration time period” for the next semester they return from their approved leave of absence period. Students who are enrolled in the Interdisciplinary Ph.D. program in the School of Graduate Studies and the Schools of Dentistry, Law, Medicine, Nursing, Pharmacy, and the Conservatory of Music and Dance must adhere to their school’s leave of absence policies and procedures as these schools may have more stringent requirements or additional procedures.

1. Students who want to take an approved leave of absence are required to fill out the “Request for Leave of Absence Form” and are required to fill out a “Return from Leave of Absence Form” in order to be allowed to enroll and return to their previous academic program.
2. The deadline for applying for a leave of absence if the student has not been attending classes and is enrolled is no later than the fourth week of the semester. Students who need to apply for a leave of absence during a semester for which they have been attending will have until the last week of classes for the current term in accordance with the academic calendar.

The deadline for applying for a return from a leave of absence is 30 days prior to the first class date of the semester in which the student plans to enroll. Students who request a leave of absence that is not planned in advance due to a medical emergency or other extenuating circumstance beyond the control of the student will be reviewed on a case-by-case basis.

Academic program and graduation requirements may change during a student’s leave of absence. It is at the discretion of the college/school to define the program and graduation requirements once the student has been approved to return from a leave of absence. Some programs may approve students to return on a space available basis.

Eligibility requirements:

1. Be a degree seeking student
2. Be registered and enrolled in classes for the current term
3. Be eligible to enroll and be in academic good standing, on probation, or on continuing probation with his or her academic unit
4. Have submitted all outstanding high school or transfer transcripts if conditional admission was granted for the student to enroll for the previous semester
5. Provide a personal statement and official documentation for why a leave of absence is being requested

Please note: a student who returns from a leave of absence will continue on the same academic standing that was in place at the time that the leave of absence began.

**Leave of Absence Duration**

A leave of absence will be granted for a maximum of two semesters (e.g. Fall and Spring or Summer and Fall). A student can request an extension for his or her leave of absence; however, the request for an extension cannot extend more than one year beyond the original date requested. Students who do not return by the date noted on their approved leave of absence form and who are not granted an approved extension will be required to reapply through the Office of Admissions.
Leave of Absence Policy

Leave of Absence Duration for Military Personnel
A leave of absence will be granted for all uniformed service members called to duty (whether voluntary or involuntary) for the duration of their time served. The student must fill out a Request for Leave of Absence form and provide the Registration and Records office with a copy of their written orders. Service members will be re-admitted to the university upon their return under the same re-admittance policies as all students who have been on a leave of absence from the university. Service members will not experience any added penalties from the University for fulfilling their military obligations.

Student Status During the Leave of Absence
A student granted a leave of absence retains his/her admitted student status. However, he/she is not registered and, therefore, does not have all the rights and privileges of a registered student and should be aware of the following consequences:

1. Financial Aid & Scholarships Office - A student is not eligible for any financial aid disbursements during the semesters while on leave of absence. A student on a leave of absence can be reported to lenders and loan service agencies as "non-attending" and may need to contact his/her lenders for information on possible repayment requirements, deferments and forbearances.
2. Enrollment verification requests - Enrollment verifications for other entities, such as parents' health or auto insurance companies, will also be reported as "non-attending."
3. Campus health - A student on a leave of absence for a particular semester is not registered for any credit hours and, therefore, not eligible to use the Student Health and Wellness Service Office.
4. Computing resources - A student on a leave of absence will not have access to computing resources, including computing labs. Students will be able to maintain their UMKC exchange email accounts.
5. Other student services – A student on a leave of absence will not have access to any campus or university service that is usually available only for currently enrolled students.

Leave of Absence Appeal
A student who has been denied a leave of absence or a student who has been granted a leave of absence but believes that either the period of leave awarded or the conditions specified are unreasonable, shall have a right to appeal the decision. All leave of absences that originate in the academic units of Medicine, Law, Pharmacy, Nursing, and Dentistry must continue through that unit's administrative appeals process. The process for filing an appeal is defined below.

Process for Obtaining a Leave of Absence
1. Schedule an appointment with your college/school to meet with an academic advisor or other designated administrator to review the leave of absence application's impact on the following issues:
   • Impact on progress toward degree.
   • Catalog year and status after leave of absence.
   • Previous semester’s academic standing at the time of the requested leave.
   • Transfer policies, incomplete grades, agency requirements (e.g., state licensing/certification) and other academic issues, if applicable.
     a. Requesting a change of major at the same time the leave of absence is being requested.
     b. Review the policy and complete the Request for Leave of Absence Request Form. Forms are available online by visiting http://www.umkc.edu/registrar/forms.asp. The deadline for applying for a leave of absence if the student has not been attending and is enrolled is no later than the fourth week of the semester. Students who need to apply for a leave of absence during a semester for which they have been attending will have until the last week of classes for the current term in accordance with the academic calendar.
     c. Obtain the signature of the designated administrator in your college/school to approve the leave of absence.
     d. Schedule a meeting with the Financial Aid & Scholarships Office to meet with a financial aid counselor if you are receiving financial aid and/or scholarships for the term in which you want to apply for a Leave of Absence.
     e. Contact other offices, if applicable:
        • International Student Affairs Office - International students must receive mandatory advisement, including signature, from the International Student Affairs Office (ISAO) to discuss the impact of the leave of absence on their immigration status. An international student on an approved leave of absence must contact the ISAO prior to his/her return to UMKC to clear visa status and request appropriate immigration documents.
        • Financial Aid & Scholarships Office - Students who have received financial aid and/or scholarships should request information from the office about the impact a leave of absence has on current aid and future eligibility. Students should specifically request information about possible deferments for scholarships and/or loans.
        • Cashier’s Office – Students who have outstanding balances on their accounts should talk with the Cashier’s Office about payment arrangements to ensure there will be no delinquencies, late charge or collections associated with their accounts during their extended leave of absence period. Once a plan has been created, the Cashier’s Office will provide sign-off on the leave of absence form which is returned to the next appropriate office for processing.
The Leave of Absence policy is effective as of Summer 2010 and applies to all students, regardless of the catalog year the student entered the University.

Steps for Returning from a Leave of Absence

1. A student should be physically, mentally and emotionally ready to return to school.
2. At the time of return, a student must complete a Return from Leave of Absence Form and must be eligible to register for the term in which they want to register (e.g. no financial holds, no academic holds, no disciplinary holds, etc.).
3. A student returning from a leave of absence that is earlier than the date originally agreed upon should provide notice to all applicable offices as soon as possible as noted on the Return from Leave of Absence Form.
4. A student must meet all financial aid requirements as outlined by the Financial Aid & Scholarships Office for the upcoming academic year or term for which the student is returning from their leave of absence.
5. The Student Affairs Office in conjunction with the other offices that require signatures from a return from leave of absence will assist in identifying any outstanding issues associated with advising, registration, etc.
6. The Registration & Records Office will send notification to the student's UMKC email address that their Leave of Absence has been processed.

UMKC’s Registration & Records Office Procedures for Processing a Leave of Absence

1. Notify the student of the result of his or her leave of absence request in writing to their UMKC email address.
2. Process the leave of absence request and note the expected return date in the Pathway system.
3. Notify the Academic Unit of the student's approved leave of absence and the semester the student is expected to return.
4. If a student considers that they have been unfairly or improperly treated in the appeals process, they have the right to file a grievance with the appropriate officer as outlined in the University of Missouri Student Grievance policy, http://www.umsystem.edu/ums/rules/collected_rules/grievance/ch390/grievance_390.010.

Postgraduate Leave of Absence Policy

1. All leave of absence appeals not originating from the Interdisciplinary Ph.D. program in the School of Graduate Studies, Schools of Medicine, Law, Pharmacy, Nursing, and Dentistry must be presented in writing to the Assistant Vice Chancellor of Student Affairs and Enrollment Management (AVCSAEM) within five (5) working days of receipt of the leave of absence denial and contain the following information:
   • The reason(s) for the appeal including any hardships the leave of absence denial poses to the student’s future continued academic status.
   • Any additional evidence deemed necessary to reverse the original decision.
2. On receipt of a formal appeal, the AVCSAEM or designee will:
   • Acknowledge the receipt of the appeal within five (5) working days on receipt of the written leave of absence appeal.
   • Investigate the claims outlined in the appeal.
   • Notify the student, in writing, of the decision within five (5) working days of acknowledgement of the written appeal.
3. The decision of the AVCSAEM or designee is final.
4. If a student considers that they have been unfairly or improperly treated in the appeals process, they have the right to file a grievance with the appropriate officer as outlined in the University of Missouri Student Grievance policy, http://www.umsystem.edu/ums/rules/collected_rules/grievance/ch390/grievance_390.010.

Fee Refunds Schedule

Students who request a Leave of Absence are subject to the established fee refund schedule. Students who wish to petition for an exception to the refund policy will need to attach the form to their Leave of Absence Request.
Minor Policy

A minor is an academic program of at least 18 credits (9 at the junior/senior level) that supplements a major degree program. Students cannot be awarded a minor in the same academic discipline as their major or emphasis area.

Major discipline faculty determine and indicate on the degree audit system any minors that cannot be awarded due to both major and minor drawing from the same discipline content.

Completion of an approved minor is recorded on a student’s transcript. Minors are included in program requirements, the degree audit system, and the UMKC Catalog.

Privacy Rights

UMKC complies with the Family Educational Rights and Privacy Act (FERPA), which governs the release of student academic records. Student academic records are considered confidential between the student and the University, and will not be released to a third party without the written consent of the student except as provided within FERPA and UMKC policy.

Certain information about students is considered directory information and directory information may be released to anyone without a student’s signed written consent unless the student submits a written request to restrict release of directory information. All students will be listed by name with address, e-mail and telephone number in a student directory which may be in electronic format. If release of information is restricted, a student’s name and related information will be excluded from the student directory. Directory information restrictions may take up to 15 working days to process after the request is submitted by the student. All students’ names will be printed in the commencement program regardless of the directory information restriction.

Registration

Eligible students may register during the registration period that is announced in Pathway and via UMKC e-mail. Students who are not registered will not receive academic credit and cannot attend classes. All registration and changes in registration must be processed by the UMKC Registration and Records Office either in person or using an approved electronic format such as Pathway.

A class schedule is published prior to each semester in Pathway and lists courses offered, meeting times and locations. The University reserves the right to cancel without notice any course listed in the schedule for any semester, or to withdraw any course that does not have adequate enrollment at the close of the registration period.

Additions

Eligible students may register during the registration period that is announced in Pathway and via UMKC e-mail.

Students who are not registered will not receive academic credit and cannot attend classes.

All registration and changes in registration must be processed by the UMKC Registration and Records Office either in person or by using an approved electronic format such as Pathway.

A class schedule is published in Pathway prior to each semester and lists courses offered, meeting times and locations. The University reserves the right to cancel any course listed in the schedule without notice.

Adding a Class

Students may add a class to their official records through the first week of classes for a regular session.

Students who are not enrolled at the time a semester begins are subject to an additional fee.

Additions of courses after the first week of classes are deemed unusual and therefore require the approval and signatures of advisors and the instructor of record.

Administrative Drop Policy

In order to comply with federal regulations associated with eligibility rules for federal financial aid, UMKC instructors will utilize an Administrative Attendance Survey to confirm attendance for all students during the first three weeks of the term and administratively drop students who are not attending specific courses. For the purposes of this survey a student is considered to have begun attendance or participated in the course if they have demonstrated one of the following acceptable academically related activities:

- Physically attending a class with direct interaction;
- Submitting an academic assignment;
- Taking an exam, interactive tutorial, or computer-based instruction;
• Attending a school-assigned study group;
• Participating in online discussion about academic matters;
• Initiating contact with a faculty member to ask about subject studied.

Students will have 48 hours to respond to the notification and request to re-enroll in the course with instructor permission. Instructors may evaluate the student’s request in the same manner as other late enrollment requests.

All refunds will be based upon the date of the drop in accordance with the UMKC Academic Calendar.

**Class Waitlist**

A class waitlist provides an option for students to indicate they want to enroll in a class that has reached its authorized capacity and is closed. A student on a waitlist is not officially enrolled in that course and thus is not eligible to receive a grade in that course.

*Each department determines which classes will be available for waitlist and the waitlist capacity.* Each section with a waitlist may have a different maximum number of students who can be on the waitlist at the same time.

Waitlists will be available through the end of the third day of classes at the beginning of each term’s open add/drop period.

A student gets on the waitlist at the time he/she attempts to enroll in a full class section by checking the ”OK to Waitlist” checkbox that will be displayed when enrolling in a class. If there is no waitlist or the waitlist is full, the ”OK to Waitlist” checkbox will not appear as an option when a student attempts to register for a class in Pathway’s Self-Service Enrollment. A student can be moved from the waitlist to enrolled status by:

System intervention: An automated nightly process will automatically move eligible students from the waitlist to enrollment. After the last automated process run at the end of the third day of classes, students will need to be signed in to the course on a registration form.

Students must be eligible to be automatically enrolled from the waitlist for the following reasons:

- They have a time conflict with another class;
- They are already enrolled in another section of the course;
- They would exceed their maximum term units;
- They do not meet requirements of the course (for example, reserved for majors only);
- They have a registration hold;
- The class is full.

Students who are enrolled via the waitlist are responsible for reviewing and making any other changes to their schedule. Instructors have the right to increase course capacity to allow specific students to enroll in their class. Students will only be enrolled from the waitlist provided the enrollment does not exceed the room capacity designated for the class.

**Cancellation of Enrollment for Financial Delinquency**

Classes are not automatically canceled for non-payment. It is the responsibility of all students to withdraw from classes if they will not be attending the semester. If a student withdraws from classes, he or she may still owe the University full or partial fees in accordance with the UMKC fee refund policy. A minimum payment is required by the first payment deadline regardless of when a student registers in courses for a given semester. Pending financial aid and scholarships do not constitute a minimum payment of fees if an outstanding balance remains. If anticipated financial aid is not received or is not sufficient to cover charges, the student remains responsible for all or remaining charges incurred for the semester.

**Concurrent Enrollment**

Students may not earn and apply degree credit from another college or university at the same time as earning degree credit at UMKC except with the prior approval of the UMKC academic unit involved. Notification of this exception when approved by the academic unit must be forwarded to the UMKC Registration & Records Office.

**Drops**

Eligible students may register during the registration period that is announced in Pathway and via UMKC e-mail. Students who are not registered will not receive academic credit and cannot attend classes. All registration and changes in registration must be processed by the UMKC Registration and Records Office (http://www.umkc.edu/registrar) either in person or using an approved electronic format such as Pathway.

A class schedule is published prior to each semester in Pathway and lists courses offered, meeting times and locations. The University reserves the right to cancel without notice any course listed in the schedule for any semester, or to withdraw any course that does not have adequate enrollment at the close of the registration period.
Eligible students may drop during the drop schedule period that is provided in the Academic Calendar.

Eligible students may drop classes without academic assessment from the point of initial registration through the first 25% of a session, which is the first four weeks of a 16-week fall or spring semester.

If students drop all of their classes prior to the end of the first four weeks of the semester, a notation is placed on their transcript that indicates the date the classes were dropped. Students who drop all of their classes during the first four weeks of the semester are required to follow the Total Withdraw Policy.

Late/Retroactive Withdrawal Policy

A student may petition for Late/Retroactive Withdrawal from a course(s) or from the university (all courses taken during that semester), if circumstances of a serious and compelling nature prevented the completion of coursework and extenuating circumstances prevented withdrawal by the deadline on the Academic Calendar. In filing a Petition for Late/Retroactive Withdrawal, withdrawal from all courses taken during the term in question is normally expected since 'extenuating circumstances' are not course-specific.

Petitions must be submitted to the University Late/Retroactive Withdrawal Committee, after consultation with student's academic advisor. A University Late/Retroactive Withdrawal Committee is designated to make decisions on all retroactive withdrawal petitions. Approved retroactive withdrawal petitions which require a change of grade will follow standard change of grade procedures. A copy of the approved petition and supporting documentation should be attached to the grade change form when it is submitted to the Registration and Records office.

Students who submit a retroactive withdrawal are not typically candidates for fee refunds.

For courses taken while enrolled in the Interdisciplinary Ph.D. program in the School of Graduate Studies and in the Schools of Dentistry, Law, Medicine, and Pharmacy, students should refer to the retroactive withdrawals policies and procedures of these schools, as they may have more stringent requirements.

Students are not a candidate for late/retroactive withdrawal if any of the following conditions are true:

- You are applying because you are not satisfied with the grade you earned.
- You are applying because you neglected to formally withdraw from the course(s) in question.
- You were not aware of the withdrawal deadlines.
- You changed your major and are now working towards a major or degree which does not require this course.
- You assumed non-academic activities which restricted your time for academic pursuit.
- You were ill or you suffered stress as the result of an accident, death, family crisis, or other crisis early enough in the semester to have withdrawn during the semester.
- You have already received a UMKC degree for which the course(s) in question were applied towards degree requirements and/or your UM GPA.

If any of the above are found to be true of your case, your request for retroactive withdrawal will be denied.

Students may be candidates for late/retroactive withdrawal if any of the following conditions are true:

- There was a documented administrative error that affected your enrollment in one or more courses.
- You have documentation of a serious illness that affected your ability to complete all of your coursework after the withdrawal date.
- You encountered documented extreme and unusual circumstances which a) were beyond your control, b) occurred after the withdrawal date, and c) could not have been addressed during the term in which the course(s) was taken.

The retroactive withdrawal policy is effective as of Summer 2010 and applies to all students, regardless of the catalog year the student entered the University.

Total Withdrawals

Official withdrawals may be done by mail when a student is unable to appear in person (for example, if you are out of town or suffering from an illness or accident) or if the Registration & Records Office is closed or Pathway is down (for example, during a power outage) and you wish to receive a refund. The postmark on the envelope is used as the refund date.

Transcript notations are determined based on the time of the semester the withdrawal occurs.

Students wishing to withdraw from all of their classes must complete an exit interview questionnaire available at https://www.umkc.edu/stu-aff/exit/login.cfm.

The following actions are not considered official notification of withdrawal:

- Assuming classes will be cancelled because of nonpayment of tuition and fees by the student.
- Failure to attend class.
- Giving notice to an instructor.
Withdrawals

Eligible students may withdraw from their classes during the withdraw schedule period that is provided for each session of a semester/term in the Academic Calendar.

Students in a 16-week session follow the following schedule:

- After the fourth week through the twelfth week students will receive an automatic W on their transcript.
- After the twelfth week, students will need to follow the Late/Retroactive Withdrawal Policy.

Students who want to withdraw from all of their classes must follow the Total Withdraw Policy.

Students in 8-week courses follow a similar schedule. See the academic calendar for specific dates.

RooWriter

RooWriter Assessment

All students enrolled in an undergraduate degree program, as well as all University College and pre-professional students, must complete the RooWriter writing assessment after completing DISC 200 and before completing 90 credit hours. Transfer students who have satisfied the DISC 200 requirement should complete RooWriter within their first semester at UMKC. The optimal time to complete RooWriter is within one semester of completing DISC 200.

Students may complete the RooWriter at any time while enrolled at UMKC as a diagnostic assessment, but it will only satisfy the baccalaureate graduation requirement after a student has passed Discourse 200 (or its equivalent). Undergraduate students who have earned a baccalaureate degree from a regionally accredited institution are exempt from the RooWriter requirement. The RooWriter supports and is supported by the University-wide General Education Core (https://catalog.umkc.edu/undergraduate-academic-regulations-information/general-education-requirements) requirements. Students should visit the RooWriter website for general information: https://net3.umkc.edu/intapps/RooWriter

Tools for Planning and Fulfilling Academic Requirements

Tools for Planning and Fulfilling Academic Requirements

UMKC’s Major Maps (https://cf1.umkc.edu/majormaps) are detailed, semester by semester plans that lead a student to complete all degree requirements within four years. Plans include benchmarks and critical courses by term that assist a student’s evaluation of progress and major “fit”. In order to ensure that the appropriate courses are taken, students are encouraged to consult with the undergraduate advisor for this major.

UMKC’s Degree Audit System (https://www.umkc.edu/registrar/majors-degrees/plannmydegree.asp) provides an individual evaluation of all degree requirements (General Education Core, Degree Specific, Major Specific, etc.) for student’s officially recorded (Office of Registration and Records) and “what if” plans of study. This evaluation is used to certify all graduation requirements.

UMKC’s Transfer Guides (https://www.umkc.edu/transferguides) provide detailed guidance on recommended transfer coursework, plans of study, transfer timelines, and transfer contact information. To ensure a seamless transfer experience, students are encouraged to work with both their community college advisor and a UMKC advisor when planning their coursework.

Transcripts

Official transcripts are issued only to other educational institutions, employers, state departments of education and similar agencies. Transcripts are issued at the written request or authorization of students. Students may secure a transcript of their UMKC permanent academic records from the UMKC Registration & Records Office. Transcripts stamped "Issued to Student" are not considered official by UMKC. Partial transcripts of permanent academic records which contain only a portion of the courses completed at UMKC are not issued. No transcript may be issued to or for students who are indebted to the University until the debt has been cleared.

Transfer and External Sources of Credit

Transfer students should refer to the policies and procedures outlined in the Undergraduate Admissions (p. 2326) section of the catalog when seeking admission to the University. UMKC accepts credit in transfer from regionally accredited institutions of recognized standing, both public and private. It also awards credit through examination programs as described in the Credit by Examination section of the catalog.
Eligibility for credit by departmental examination requires:

- The charge for attempting credit by departmental exam is equal to one credit hour.
  ([http://www.umkc.edu/registrar/forms/credit_by_exam.pdf](http://www.umkc.edu/registrar/forms/credit_by_exam.pdf)).
- Before taking a departmental examination, students must register in the Registration and Records office and obtain a Credit by Departmental Examination form:
  - If a department chooses to offer credit by examination, the department must provide a test that measures the same level of proficiency as is required to earn credit for enrollment in the course. Frequently this is the final exam for the course.

Credit by Departmental Examination may be earned if a student has previous knowledge or proficiency in an area of study and arranges to take a departmentally administered examination. If a department chooses to offer credit by examination, the department must provide a test that measures the same level of proficiency as is required to earn credit for enrollment in the course. Frequently this is the final exam for the course. Before taking a departmental examination, students must register in the Registration and Records office and obtain a Credit by Departmental Examination form:

([http://www.umkc.edu/registrar/forms/credit_by_exam.pdf](http://www.umkc.edu/registrar/forms/credit_by_exam.pdf)).

The charge for attempting credit by departmental exam is equal to one credit hour.

Eligibility for credit by departmental examination requires:

1. Enrollment at UMKC in the semester in which the examination is administered
2. No enrollment in the course that is subject of the examination during the last three terms.
3. Achieve a grade of C or above on the examination in order to receive credit.
Credit for Military Training

Students who have served in the armed forces may be eligible to receive college credit for courses completed through the military or occupational specialty training. The American Council of Education recommendations in *A Guide to the Evaluation of Educational Experiences in the Armed Services* generally serve as a basis for granting such credit. To count toward a degree, the credit recommended must be appropriate to the student’s curriculum. UMKC does not grant credit for military science or for courses that are strictly military/vocational in content.

Missouri Higher Education Articulation Agreement

General Education Requirements for Transfer students:

All UMKC undergraduate students complete general education requirements. The UMKC General Education Core (UMKC Core) curriculum is designed to provide knowledge and skills that are important for all students, no matter their major or field of study. For full details, see umkc.edu/core (https://www.umkc.edu/core).

Per a requirement passed into Missouri law in 2016, a state-wide general education curriculum specific to transfer students was created to facilitate transfer among Missouri’s public colleges and universities. This new state-wide curriculum requires 42 hours of coursework spread amongst five knowledge areas:

- Mathematical sciences – three (3) credit hours
- Natural sciences – seven (7) credit hours, including a course with a lab
- Humanities and fine arts – nine (9) credit hours from at least two disciplines
- Social and behavioral sciences – nine (9) credit hours, including a civics course
- Written and oral communications – nine (9) credit hours (six in written communications and three in oral communications)
- Additional hours – five (5) additional credit hours distributed among the above five knowledge areas.

All transfer students to UMKC from an accredited regional institution shall be treated the same as those transferring from a public Missouri institution of higher education. Starting Fall 2018, new incoming transfer students may be eligible to complete either the UMKC Core or Core 42 general education curriculum. For more details on Core 42, please visit - https://dhe.mo.gov/core42.php.

Transfer Students with a Completed Core 42, an Associate of Arts degree or a Bachelor’s degree

- Students who complete the CORE 42 curriculum at a participating Missouri institution, an Associate of Arts degree from any regionally accredited institution, or a Bachelor's degree from a regionally accredited institution before transferring will have met all UMKC general education requirements.

Transfer Students with General Education Coursework in Progress

- Students transferring to UMKC with at least twelve (12) post-high school college credit hours but without the completed Core 42 or Associate of Arts degree may have the option to complete either the UMKC Core or Core 42.
- Transfer guides are built based on the optimal general education curriculum to create your shortest path to graduation from UMKC.
- Your advisor will review your transfer credits with you prior to the end of your first semester at UMKC to help you determine which general education curriculum best suits your degree plan and moves you closest to graduation.

Below are the UMKC courses students must take if they wish to complete the 42-credit core prior to transferring to another Missouri institution:

1. DISC 100
2. DISC 200
3. DISC 300
4. Anchor I
5. Anchor II
6. Anchor III
7. Focus A
8. Focus B
9. Focus C
10. Focus Elective
11. Additional credit hours to total 42

*This does not apply to courses transferred from other institutions.*
Transferring Within the University of Missouri System

University of Missouri Policy states that "Any course that leads to an undergraduate degree on any campus of the University of Missouri shall be accepted in transfer toward the same degree on each campus of the University offering said degree." Students transferring within the UM system are still required to satisfy the course and residency requirements of the campus from which they wish to graduate. Grades, including D and F grades, and grade points earned will also transfer and be included in the cumulative UM grade-point average.

For more information contact the following offices –

University of Missouri – Columbia  Office of Admissions, 800-225-6075, mu4u@missouri.edu
University of Missouri – Kansas City – Registration & Records Office, 816-235-1125, registrar@umkc.edu
Missouri University of Science and Technology – Registrar’s Office, 573-341-4181, registrar@mst.edu
University of Missouri – St. Louis - Office of the Registrar, 314-516-5545, registration@umsl.edu

Writing Intensive

Writing Intensive Courses

Writing Intensive courses at UMKC are undergraduate courses of at least 3 credit hours, at the junior or senior level, generally designated by WI or WL following the course number. Students must complete the RooWriter (https://catalog.umkc.edu/undergraduate-academic-regulations-information/roowriter) Writing Assessment before being allowed to register for Writing Intensive classes. For more information about the RooWriter, go to the RooWriter website at https://net3.umkc.edu/intapps/roowriter/.

At the end of a Writing Intensive course at UMKC, students should be able to:

• Write in genres, participate in activities, and perform assignments that are appropriate to the respective discipline.
• Demonstrate their ability through writing to read closely and analyze critically the texts of their disciplines.
• Produce writing through the recursive process of brainstorming, research, drafting, peer review, and revising.
• Articulate and support a coherent thesis or purpose in their writing and develop it according to the conventions of a given discipline or audience.
• Use research methods and documentation that meet the standards of the discipline.
• Articulate and discuss their work with peers or the instructor.

For example, to achieve these goals Writing Intensive course design emphasizes and teaches writing as a recursive process, some class time is devoted to helping students complete writing assignments, writing assignments are distributed throughout the semester, and differ in length and purpose, the course requires 5,000-10,000 words (approximately 20-40 double-spaced pages) of revised, final-draft quality writing, and writing assignments account for at least 40 percent of the course grade. Complete guidelines and mandatory requirements for the design of and best practices for teaching a Writing Intensive course at UMKC appear on the University Writing and Reading Board (UWRB) website, http://www.umkc.edu/uwrb/, or can be obtained by contacting the UWRB at uwrb@umkc.edu.
UNIVERSITY LIBRARIES

Administrative Offices, University Libraries
Miller Nichols Library (http://library.umkc.edu), Room 212
800 E. 51st Street
Administration (816) 235-1531
Service Desk (816) 235-1526
Fax: (816) 333-5584
http://library.umkc.edu/

Dental Library (http://library.umkc.edu/dental)
School of Dentistry (http://dentistry.umkc.edu)
650 E. 25th Street
(816) 235-2030
http://library.umkc.edu/dental

Health Sciences Library (http://library.umkc.edu/hsl)
School of Medicine (http://www.med.umkc.edu)
2411 Holmes Street
(816) 235-1880
http://library.umkc.edu/hsl

Leon E. Bloch Law Library
School of Law (http://www.law.umkc.edu)
500 E. 52nd Street
(816) 235-1650
http://law.umkc.edu/library

Mailing Address:
University of Missouri-Kansas City
University Libraries
5100 Rockhill Road
Kansas City, MO 64110-2499

University Libraries Faculty and Staff Directory (http://library.umkc.edu/ulstaff)

Dean of Libraries:
Bonnie Postlethwaite (https://cf1.umkc.edu/intapps/lookup/?LastName=postlethwaite)

Director of Strategic Initiatives and Planning:
David Lindahl (https://cf1.umkc.edu/intapps/lookup/?LastName=lindahl)

Assistant Director for Administrative Services:
Jennifer L. Eigsti (https://cf1.umkc.edu/intapps/lookup/?LastName=eigsti)

Director of Advancement:
Nicole Leone (https://cf1.umkc.edu/intapps/lookup/?LastName=leone)

Director of Public Services (Miller Nichols Library):
Cindy Thompson (https://cf1.umkc.edu/intapps/lookup/?LastName=thompson)

Head of Resource Sharing:
Jennifer Salvo-Eaton (https://cf1.umkc.edu/intapps/lookup/?LastName=salvo)

Head of Circulation Services (Miller Nichols Library):
Mary E. Anderson (https://cf1.umkc.edu/intapps/lookup/?LastName=anderson)

Head of Music/Media Library:
Nara Newcomer (https://cf1.umkc.edu/intapps/lookup/?LastName=newcomer)

Head of Learning and Research Support (Miller Nichols Library):
Mardi Mahaffy (https://cf1.umkc.edu/intapps/lookup/?LastName=mahaffy)

Director of Scholarly Communications:
University Libraries

Brenda L. Dingley (https://cf1.umkc.edu/intapps/lookup/?LastName=dingley)

**Director of Health Sciences Libraries:**
Peggy Mullaly-Quijas (https://cf1.umkc.edu/intapps/lookup/?LastName=mullaly)

**Dental Librarian:**
Marie Thompson (https://cf1.umkc.edu/intapps/lookup/?LastName=thompson)

**Assistant Dean of Special Collections and Archives:**
Stuart Hinds (https://cf1.umkc.edu/intapps/lookup/?LastName=hinds)

**Sound Archivist:**
Chuck Haddix (https://cf1.umkc.edu/intapps/lookup/?LastName=haddix)

**Senior Manuscript Specialist (University Archives):**
Tonya Crawford (https://cf1.umkc.edu/intapps/lookup/?LastName=crawford)

**Director of Collections and Access Management:**
Buddy Pennington (https://cf1.umkc.edu/intapps/lookup/?LastName=pennington)

**Head of Collections:**
Steve Alleman (https://cf1.umkc.edu/intapps/lookup/?LastName=alleman)

**Head of Electronic Resources and Acquisitions:**
Mariah Harvey (https://cf1.umkc.edu/intapps/lookup/?LastName=harvey)

**Leon E. Bloch Law Library Staff Directory** (http://law.umkc.edu/directory/staff-directory/?cn-s=&cn-cat=43&cn-pg=1&cn-pg=1)

**Director, Leon E. Bloch Law Library:** Paul D. Callister (https://cf1.umkc.edu/intapps/lookup/?LastName=Callister)

**Associate Director/Director of InformationTechnologies, Leon E. Bloch Law Library:** Michael J. Robak (https://cf1.umkc.edu/intapps/lookup/?LastName=Robak)

**Description**

The University Libraries (http://library.umkc.edu) consist of the Miller Nichols Library, the Health Sciences Library and the Dental Library, and we partner with the Leon E. Bloch Law Library. Our mission states that the University Libraries is an essential partner in empowering intellectual discovery, facilitating scholarship and creative activity, and preserving intellectual and cultural records.

The University Libraries provide research facilities, resources and services in support of academic programs. We partner with the campus Office of Services for Students with Disabilities (http://www.umkc.edu/disability) (OSSD) and are committed to providing services and assistance to all members of the UMKC Community. Information about services for individuals with disabilities (http://library.umkc.edu/disability) can be found on the Web site at http://library.umkc.edu/disability and by calling 816-235-1508 or the Miller Nichols Library Reference Desk at 816-235-1526. The Library accepts calls through the National Relay Service (711) and the Missouri Relay Service (800-735-2966).

The Miller Nichols Library (http://library.umkc.edu) serves primarily the College of Arts and Sciences (http://cas.umkc.edu), the Conservatory of Music and Dance (http://conservatory.umkc.edu), and the schools of management (http://www.umkc.edu/bloch), education (http://www.umkc.edu/education), biological sciences (http://sbs.umkc.edu) and computing and engineering (http://www.sce.umkc.edu). Specialized libraries include; the Leon E. Bloch Law Library (http://law.umkc.edu/library) in the School of Law (http://law.umkc.edu), the Dental Library (http://library.umkc.edu/dental) in the School of Dentistry (http://dentistry.umkc.edu), and the Health Sciences Library (http://library.umkc.edu/hsl) located in the School of Medicine (http://med.umkc.edu), and serving the schools of Medicine (http://med.umkc.edu), Nursing & Health Studies (http://sonhs.umkc.edu) and Pharmacy (http://pharmacy.umkc.edu). UMKC faculty, students and staff have access to all collections and services, subject to the policies in effect at each library location.

**Other Collections:**

- Marr Sound Archives (http://library.umkc.edu/marr) (Miller Nichols Library)
- Music/Media (https://library.umkc.edu/music-media) (Miller Nichols Library)
- Dr. Kenneth J. LaBudde Special Collections (https://library2.umkc.edu/labudde) (Miller Nichols Library)
- University Archives (http://www.umkc.edu/University_Archives) (Miller Nichols Library)
- The State Historical Society of Missouri (http://shs.umsystem.edu/about/kansascity.shtml) (Research Center-Kansas City - Newcomb Hall) **Assistant Director - Lucinda Adams** (http://shs.umsystem.edu/about/staff.shtml)
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1 Associate or Adjunct Graduate Faculty
2 Members of UMKC Graduate Faculty
3 Members of UMKC Doctoral Faculty
4 Located at UM-St. Louis campus

Leon E. Bloch Law Library

Leon E. Bloch Law Library

(816) 235-1650

http://law.umkc.edu/library

The Leon E. Bloch Law Library (http://law.umkc.edu/library) is a comfortable, efficient and user-friendly facility located in the School of Law at 52nd and Oak streets and open to both students and members of the public. All UMKC students may check materials out with a current student ID.

The library contains holdings in all major areas of legal scholarship and practice, including international, comparative and government materials. The collection can be found both in the open shelves of the Library as well as in the MNL RooBot, a highly automated storage and retrieval system. Those
items located in the RooBot can be found and retrieved using the online catalog. The Library also has ample research and study space provided by tables and study carrels, and a dedicated tax law alcove.

The physical collection is augmented by subscription databases, an international interlibrary loan system, and a state-wide lending consortium, including the University and Law Libraries of the University of Missouri - Columbia, Saint Louis University and Washington University.

**Electronic Resource Center**

Technology has reshaped legal research in ways that will forever alter how attorneys and judges approach their work. The information professionals of the Leon E. Bloch Law Library have embraced this transformation by providing wireless networking throughout the law building and the Jerry Haley Electronic Resource Center (JHERC). The JHERC includes 15 work stations. Other library rooms are equipped with large monitors for students to plug into with their laptops.

The lab also includes printers, scanners and a dedicated workstation for the visually impaired. Librarians provide instruction in legal information technologies in courses and on an individual basis.

**Law Library and Resource Center Hours**

- Monday – Thursday ---  8 a.m. – 7 p.m.
- Friday -------  8 a.m. – 6 p.m.
- Saturday -------  9 a.m. – 5 p.m.
- Sunday ------- Noon – 7 p.m.

**Reference Hours**

The library’s highly qualified reference librarians, with many years of legal practice as well as library experience, are available during the regular semester as follows:

- Monday – Friday --- 10 a.m.– 4 p.m.

**PLEASE NOTE:** access to the library is restricted after 7:00 p.m. to law students and faculty. Exceptions may be made for other students needing to do research, on a case-by-case basis.

Summer, spring break and intersession hours are available at [http://law.umkc.edu/library](http://law.umkc.edu/library). You may also call us at 816-235-1650.
## INDEX

### A
- About the School of Education ................................................................. 1061
- Academic Amnesty .................................................................................. 2318
- Academic Calendar .................................................................................. 2325
- Academic Credit Hour Equivalencies Policy ........................................... 2325
- Academic Honesty and Student Code of Conduct ................................. 2286
- Academic Loads, Full- and Part-Time Status ........................................... 2324
- Academic Probation and Ineligibility ....................................................... 2326
- Academic Programs ............................................................................... 24
- Academic Regulations and Requirements .............................................. 1759
- Academic Regulations in the School of Nursing & Health Studies ....... 1695
- Academic Rules and Regulations for Juris Doctor Degree Program ....... 1341
- Academic Standards ............................................................................. 962
- Academic Standards, School of Dentistry .............................................. 916
- Academic Standing ............................................................................... 2325
- Academic Support and Success ............................................................. 1368
- Academic/Student Support Services .................................................... 915
- Acceptable Use Policy ........................................................................... 2316
- Accounting (ACCTNG) .......................................................................... 1786
- Accounting (ACCTNG) .......................................................................... 2009
- Accreditation ....................................................................................... 1064
- Accreditation ....................................................................................... 1359
- Accreditation ....................................................................................... 1697
- Activities and Services .......................................................................... 1353
- Additions .............................................................................................. 2346
- Administrative Drop Policy .................................................................... 2346
- Admission Information ........................................................................... 999
- Admission Policies and Procedures ....................................................... 1192
- Admission Policies and Procedures ....................................................... 1192
- Admission Requirements ..................................................................... 963
- Admission to the Bar ........................................................................... 1364
- Admission to the Degree Completion Program .................................... 964
- Admission to the Juris Doctor Program ............................................... 1369
- Admission to the Teacher Education Program ..................................... 1078
- Admissions .......................................................................................... 1596
- Admissions .......................................................................................... 1699
- Admissions Policies & Procedures ....................................................... 2326
- Adult Gerontology ............................................................................... 1730
- Advanced Education Programs ............................................................ 921
- Advising ............................................................................................... 2283
- Advising and Student Services ............................................................. 1073
<table>
<thead>
<tr>
<th>Bachelor of Arts: Chemistry</th>
<th>115</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Arts in Music: Music Therapy Emphasis</td>
<td>159</td>
</tr>
<tr>
<td>Bachelor of Arts in Biology for combined BA/MD Dual Degree</td>
<td>702</td>
</tr>
<tr>
<td>BA / Graduate Certificate in Holocaust Studies - Dual Program</td>
<td>422</td>
</tr>
<tr>
<td>BA / Graduate Certificate in Holocaust Studies - Dual Program</td>
<td>422</td>
</tr>
<tr>
<td>BA / Graduate Certificate in Holocaust Studies - Dual Program</td>
<td>422</td>
</tr>
<tr>
<td>Bachelor of Arts in Biology</td>
<td>698</td>
</tr>
<tr>
<td>Bachelor of Arts in Music</td>
<td>702</td>
</tr>
<tr>
<td>Bachelor of Arts in Music: Music Therapy Emphasis</td>
<td>1588</td>
</tr>
<tr>
<td>Bachelor of Arts: Art History</td>
<td>1591</td>
</tr>
<tr>
<td>Bachelor of Arts: Chemistry</td>
<td>115</td>
</tr>
<tr>
<td>Subject</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Bachelor of Science in Accounting</td>
<td>1463</td>
</tr>
<tr>
<td>Bachelor of Science in Biology</td>
<td>667</td>
</tr>
<tr>
<td>Bachelor of Science in Biology Bioinformatics</td>
<td>672</td>
</tr>
<tr>
<td>Bachelor of Science in Biology Biomedical Sciences</td>
<td>677</td>
</tr>
<tr>
<td>Bachelor of Science in Biology Biotechnology</td>
<td>681</td>
</tr>
<tr>
<td>Bachelor of Science in Biology Cellular and Molecular Basis of Health and Disease Emphasis</td>
<td>685</td>
</tr>
<tr>
<td>Bachelor of Science in Biology Clinical Laboratory Science Emphasis</td>
<td>690</td>
</tr>
<tr>
<td>Bachelor of Science in Biology Pre-Dentistry Interest Area</td>
<td>694</td>
</tr>
<tr>
<td>Bachelor of Science in Civil Engineering</td>
<td>795</td>
</tr>
<tr>
<td>Bachelor of Science in Dental Hygiene</td>
<td>961</td>
</tr>
<tr>
<td>Bachelor of Science in Dental Hygiene: Program Requirements</td>
<td>965</td>
</tr>
<tr>
<td>Bachelor of Science in Electrical and Computer Engineering</td>
<td>865</td>
</tr>
<tr>
<td>Bachelor of Science in Mechanical Engineering</td>
<td>806</td>
</tr>
<tr>
<td>Bachelor of Science in Nursing</td>
<td>1704</td>
</tr>
<tr>
<td>Bachelor of Science in Public Health</td>
<td>1711</td>
</tr>
<tr>
<td>Bachelor of Science/Bachelor of Arts: Geography</td>
<td>366</td>
</tr>
<tr>
<td>Bachelor of Science/Bachelor of Arts: Geology</td>
<td>372</td>
</tr>
<tr>
<td>Bachelor of Science: Chemistry</td>
<td>125</td>
</tr>
<tr>
<td>Bachelor of Science: Computer Science</td>
<td>853</td>
</tr>
<tr>
<td>Bachelor of Science: Emphasis in Astronomy</td>
<td>499</td>
</tr>
<tr>
<td>Bachelor of Science: Environmental Science</td>
<td>356</td>
</tr>
<tr>
<td>Bachelor of Science: Mathematics and Statistics</td>
<td>451</td>
</tr>
<tr>
<td>Bachelor of Science: Physics</td>
<td>495</td>
</tr>
<tr>
<td>Bachelor of Science: Physics and Electrical &amp; Computer Engineering</td>
<td>503</td>
</tr>
<tr>
<td>Basic Medical Science (BMS)</td>
<td>2019</td>
</tr>
<tr>
<td>Bassoon (BASSOON)</td>
<td>1806</td>
</tr>
<tr>
<td>Bassoon (BASSOON)</td>
<td>2020</td>
</tr>
<tr>
<td>Bioethics</td>
<td>88</td>
</tr>
<tr>
<td>Biological Sciences (BIO-SCI) - Oral &amp; Craniofacial Sciences</td>
<td>2020</td>
</tr>
<tr>
<td>Biological Sciences, School of</td>
<td>647</td>
</tr>
<tr>
<td>Biology (BIOLOGY)</td>
<td>1807</td>
</tr>
<tr>
<td>Biology (BIOLOGY)</td>
<td>2022</td>
</tr>
<tr>
<td>Biomedical and Health Informatics</td>
<td>1242</td>
</tr>
<tr>
<td>Black Studies</td>
<td>90</td>
</tr>
<tr>
<td>Black Studies (BLKS)</td>
<td>1811</td>
</tr>
<tr>
<td>Black Studies (BLKS)</td>
<td>2023</td>
</tr>
<tr>
<td>Bloch School - About</td>
<td>1450</td>
</tr>
<tr>
<td>BS/MS Electrical and Computer Engineering/Electrical Engineering</td>
<td>869</td>
</tr>
<tr>
<td>BS/MS Program in Computer Science</td>
<td>862</td>
</tr>
<tr>
<td>Business &amp; Entrepreneurial Emphasis Area Requirements</td>
<td>1379</td>
</tr>
<tr>
<td>C</td>
<td>2347</td>
</tr>
<tr>
<td>Cancellation of Enrollment for Financial Delinquency</td>
<td>1004</td>
</tr>
<tr>
<td>Page</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td></td>
</tr>
<tr>
<td>Dentistry Professional (DENT) .......................................................... 2062</td>
<td></td>
</tr>
<tr>
<td>Dentistry, School of ........................................................................... 884</td>
<td></td>
</tr>
<tr>
<td>Department of Computer Science Electrical Engineering .................... 815</td>
<td></td>
</tr>
<tr>
<td>Department of Oral and Craniofacial Sciences ................................... 986</td>
<td></td>
</tr>
<tr>
<td>Departments and Programs .................................................................. 37</td>
<td></td>
</tr>
<tr>
<td>Disability Services ............................................................................. 1009</td>
<td></td>
</tr>
<tr>
<td>Disabled Student Services ................................................................... 1363</td>
<td></td>
</tr>
<tr>
<td>Discourse (DISC) ............................................................................... 1861</td>
<td></td>
</tr>
<tr>
<td>Division of Counseling and Educational Psychology ......................... 1066</td>
<td></td>
</tr>
<tr>
<td>Division of Educational Leadership, Policy and Foundations ............... 1069</td>
<td></td>
</tr>
<tr>
<td>Division of Teacher Education and Curriculum Studies ...................... 1067</td>
<td></td>
</tr>
<tr>
<td>Divisions ............................................................................................ 1065</td>
<td></td>
</tr>
<tr>
<td>Doctor of Dental Surgery Program ...................................................... 991</td>
<td></td>
</tr>
<tr>
<td>Doctor of Musical Arts ........................................................................ 1639</td>
<td></td>
</tr>
<tr>
<td>Doctor of Musical Arts in Conducting Required Courses ...................... 1643</td>
<td></td>
</tr>
<tr>
<td>Doctor of Musical Arts in Music Composition Required Courses ........... 1646</td>
<td></td>
</tr>
<tr>
<td>Doctor of Musical Arts in Performance Required Courses .................... 1647</td>
<td></td>
</tr>
<tr>
<td>Doctor of Nursing Practice Program .................................................... 1715</td>
<td></td>
</tr>
<tr>
<td>Doctor of Pharmacy ........................................................................... 1771</td>
<td></td>
</tr>
<tr>
<td>Doctor of Pharmacy Professional Program .......................................... 1776</td>
<td></td>
</tr>
<tr>
<td>Doctor of Philosophy .......................................................................... 1538</td>
<td></td>
</tr>
<tr>
<td>Doctor of Philosophy Study ................................................................. 712</td>
<td></td>
</tr>
<tr>
<td>Doctor of Philosophy: Clinical Psychology Option ................................ 557</td>
<td></td>
</tr>
<tr>
<td>Doctor of Philosophy: Psychology: Experimental Health Psychology Option 561</td>
<td></td>
</tr>
<tr>
<td>Doctoral Degree Programs (Ed.D., Ph.D., D.M.A.) ................................. 1206</td>
<td></td>
</tr>
<tr>
<td>Doctoral Degree Programs (Ed.D., Ph.D., D.M.A.) ................................. 1206</td>
<td></td>
</tr>
<tr>
<td>Doctoral Faculty Participation in the Interdisciplinary Ph.D. Program ...... 1239</td>
<td></td>
</tr>
<tr>
<td>Doctoral Studies in Civil Engineering .................................................. 802</td>
<td></td>
</tr>
<tr>
<td>Doctoral Studies in Computer Science or Electrical Engineering .......... 882</td>
<td></td>
</tr>
<tr>
<td>Doctoral Studies in Mechanical Engineering ......................................... 810</td>
<td></td>
</tr>
<tr>
<td>Drops .................................................................................................. 2347</td>
<td></td>
</tr>
<tr>
<td>Dual BA/MA Program in Political Science ........................................... 531</td>
<td></td>
</tr>
<tr>
<td>Dual Credit High School/College Partnerships (HSCP) ......................... 641</td>
<td></td>
</tr>
<tr>
<td>Dual Degree - BA / MA in Economics ............................................... 221</td>
<td></td>
</tr>
<tr>
<td>Dual Degree - BS in Mathematics and Statistics / MS in Mathematics ...... 460</td>
<td></td>
</tr>
<tr>
<td>Dual Degree - BS in Mathematics and Statistics / MS in Statistics .......... 462</td>
<td></td>
</tr>
<tr>
<td>Dual Degree Programs ........................................................................ 883</td>
<td></td>
</tr>
<tr>
<td>Dual Degree Programs ........................................................................ 1210</td>
<td></td>
</tr>
<tr>
<td>Dual Degree Programs ........................................................................ 1210</td>
<td></td>
</tr>
</tbody>
</table>

**E**

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics ......................................................................................... 194</td>
</tr>
<tr>
<td>Economics ....................................................................................... 1258</td>
</tr>
<tr>
<td>Economics (ECON) .......................................................................... 1862</td>
</tr>
<tr>
<td>Title</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Economics (ECON)</td>
</tr>
<tr>
<td>Ed.D. - Educational Administration</td>
</tr>
<tr>
<td>Education (EDUC)</td>
</tr>
<tr>
<td>Education (EDUC)</td>
</tr>
<tr>
<td>Education Research and Psychology (EDUC-R&amp;P)</td>
</tr>
<tr>
<td>Education, School of</td>
</tr>
<tr>
<td>Educational Leadership, Policy and Foundations</td>
</tr>
<tr>
<td>Educational Leadership, Policy and Foundations - Graduate Programs</td>
</tr>
<tr>
<td>Educational Specialist: Counseling</td>
</tr>
<tr>
<td>Educational Specialist: Curriculum and Instruction</td>
</tr>
<tr>
<td>Educational Specialist: Educational Administration</td>
</tr>
<tr>
<td>Educational Specialist: Language and Literacy</td>
</tr>
<tr>
<td>Elective Courses for the Non-Biology Major</td>
</tr>
<tr>
<td>Electrical and Computer Engineering</td>
</tr>
<tr>
<td>Electrical and Computer Engineering (E&amp;C-ENGR)</td>
</tr>
<tr>
<td>Electrical and Computer Engineering (E&amp;C-ENGR)</td>
</tr>
<tr>
<td>Electronic Grade Change Policy</td>
</tr>
<tr>
<td>Emphasis Area: Higher Education</td>
</tr>
<tr>
<td>Emphasis Area: School (Grades K-12) Administration</td>
</tr>
<tr>
<td>Employment by Juris Doctor Degree Candidates</td>
</tr>
<tr>
<td>Endodontics (ENDO)</td>
</tr>
<tr>
<td>Engineering</td>
</tr>
<tr>
<td>Engineering and Construction Project Management Certificate</td>
</tr>
<tr>
<td>English</td>
</tr>
<tr>
<td>English Department: Emphasis in Classical, Medieval, and Early Modern Literature</td>
</tr>
<tr>
<td>English Language &amp; Literature (ENGLISH)</td>
</tr>
<tr>
<td>English Language &amp; Literature (ENGLISH)</td>
</tr>
<tr>
<td>English Language and Literature</td>
</tr>
<tr>
<td>Entrepreneurship</td>
</tr>
<tr>
<td>Entrepreneurship (ENT)</td>
</tr>
<tr>
<td>Entrepreneurship (ENT)</td>
</tr>
<tr>
<td>Environmental Sciences (ENV-SCI)</td>
</tr>
<tr>
<td>Environmental Sciences (ENV-SCI)</td>
</tr>
<tr>
<td>Environmental Studies (ENV-STDY)</td>
</tr>
<tr>
<td>Environmental Studies Minor</td>
</tr>
<tr>
<td>Environmental Studies Program</td>
</tr>
<tr>
<td>Environmental Studies Program</td>
</tr>
<tr>
<td>Environmental Sustainability Minor</td>
</tr>
<tr>
<td>Equal Opportunity Guidelines</td>
</tr>
<tr>
<td>Euphonium (EUPHNM)</td>
</tr>
<tr>
<td>Euphonium (EUPHNM)</td>
</tr>
<tr>
<td>Examinations and Grades</td>
</tr>
<tr>
<td>Section</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Exercise Science - Minor</td>
</tr>
<tr>
<td>Exit Exams</td>
</tr>
<tr>
<td>Expenses and Financial Assistance</td>
</tr>
<tr>
<td><strong>F</strong></td>
</tr>
<tr>
<td>Facilities</td>
</tr>
<tr>
<td>Facilities</td>
</tr>
<tr>
<td>Family</td>
</tr>
<tr>
<td>Family Studies</td>
</tr>
<tr>
<td>Family Studies Minor</td>
</tr>
<tr>
<td>Federally Supported Sources of Financial Aid</td>
</tr>
<tr>
<td>Federally Supported Sources of Financial Aid</td>
</tr>
<tr>
<td>Fee Information</td>
</tr>
<tr>
<td>Fellowships and Awards</td>
</tr>
<tr>
<td>Final Exam Policy</td>
</tr>
<tr>
<td>Finance (FIN)</td>
</tr>
<tr>
<td>Finance (FIN)</td>
</tr>
<tr>
<td>Financial Aid</td>
</tr>
<tr>
<td>Financial Assistance</td>
</tr>
<tr>
<td>Flute (FLUTE)</td>
</tr>
<tr>
<td>Flute (FLUTE)</td>
</tr>
<tr>
<td>Foreign Language (FRN-LNG)</td>
</tr>
<tr>
<td>Foreign Language (FRN-LNG)</td>
</tr>
<tr>
<td>Foreign Language Proficiency - Graduate Students</td>
</tr>
<tr>
<td>Foreign Language Proficiency - Graduate Students</td>
</tr>
<tr>
<td>Foreign Languages and Literatures</td>
</tr>
<tr>
<td>Foreign Languages and Literatures Department: Emphasis in Greek and Latin</td>
</tr>
<tr>
<td>Former Student Readmission</td>
</tr>
<tr>
<td>French (FRENCH)</td>
</tr>
<tr>
<td>French (FRENCH)</td>
</tr>
<tr>
<td>Freshman Admission</td>
</tr>
<tr>
<td><strong>G</strong></td>
</tr>
<tr>
<td>General Education Requirements</td>
</tr>
<tr>
<td>General Information</td>
</tr>
<tr>
<td>General Information and History</td>
</tr>
<tr>
<td>General Information on Doctoral Degrees</td>
</tr>
<tr>
<td>General Information on Educational Specialist Degrees</td>
</tr>
<tr>
<td>General Information on Master of Arts Degrees</td>
</tr>
<tr>
<td>General Practice (G-PRAC)</td>
</tr>
<tr>
<td>General Undergraduate Degree Requirements &amp; Information</td>
</tr>
<tr>
<td>Geography and Geology Programs</td>
</tr>
<tr>
<td>Geography (GEOG)</td>
</tr>
<tr>
<td>Geography (GEOG)</td>
</tr>
<tr>
<td>Geology (GEOLOGY)</td>
</tr>
<tr>
<td>Term</td>
</tr>
<tr>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Interdisciplinary Ph.D in English</td>
</tr>
<tr>
<td>Integrated Studies (INTGR)</td>
</tr>
<tr>
<td>Institutionally Supported Fellowship</td>
</tr>
<tr>
<td>Information Technology (INFO-TEC)</td>
</tr>
<tr>
<td>Independent Study</td>
</tr>
<tr>
<td>Information Technology (INFO-TEC)</td>
</tr>
<tr>
<td>Institute for Urban Education (IUE)</td>
</tr>
<tr>
<td>Institutionally Supported Fellowship</td>
</tr>
<tr>
<td>Institutionally Supported Fellowship</td>
</tr>
<tr>
<td>Integrated Studies (INTGR)</td>
</tr>
<tr>
<td>Intellectual Property Law Emphasis Area</td>
</tr>
<tr>
<td>Interdisciplinary Ph.D in Mathematics</td>
</tr>
<tr>
<td>Interdisciplinary Leadership Certificate</td>
</tr>
<tr>
<td>Interdisciplinary Ph.D in English</td>
</tr>
<tr>
<td>Page</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Interdisciplinary Ph.D.</td>
</tr>
<tr>
<td>Interdisciplinary Ph.D.</td>
</tr>
<tr>
<td>Interdisciplinary, Ph.D.</td>
</tr>
<tr>
<td>Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission</td>
</tr>
<tr>
<td>Interdisciplinary Ph.D. Degree Requirements in Pharmaceutical Sciences and Pharmacology</td>
</tr>
<tr>
<td>Interdisciplinary Ph.D. Discipline-Specific Requirements</td>
</tr>
<tr>
<td>Interdisciplinary Ph.D. in History</td>
</tr>
<tr>
<td>Interdisciplinary Ph.D. Program</td>
</tr>
<tr>
<td>Interdisciplinary Ph.D. Program Regulations</td>
</tr>
<tr>
<td>Interdisciplinary Ph.D. study in Music Education</td>
</tr>
<tr>
<td>Interdisciplinary PhD programs</td>
</tr>
<tr>
<td>Interdisciplinary Women's and Gender Studies Course Listing</td>
</tr>
<tr>
<td>International, Comparative &amp; Foreign Law (ICF) Emphasis Area Requirements</td>
</tr>
<tr>
<td>International Graduate Student Academic Regulations</td>
</tr>
<tr>
<td>International Graduate Student Academic Regulations</td>
</tr>
<tr>
<td>International Graduate Student Admission Policies and Procedures</td>
</tr>
<tr>
<td>International Graduate Student Admission Policies and Procedures</td>
</tr>
<tr>
<td>International Students</td>
</tr>
<tr>
<td>Introduction</td>
</tr>
<tr>
<td>Italian (ITALIAN)</td>
</tr>
<tr>
<td>J</td>
</tr>
<tr>
<td>J.D. Degree Requirements</td>
</tr>
<tr>
<td>J.D./MBA and J.D./M.P.A. Combined-degree Programs</td>
</tr>
<tr>
<td>Job Opportunities</td>
</tr>
<tr>
<td>Junior-Senior Hours</td>
</tr>
<tr>
<td>Juris Doctor Degree</td>
</tr>
<tr>
<td>K</td>
</tr>
<tr>
<td>Kansas Rate</td>
</tr>
<tr>
<td>Late/Retroactive Withdrawal</td>
</tr>
<tr>
<td>Latin (LATIN)</td>
</tr>
<tr>
<td>Latina / Latino Studies (LLS)</td>
</tr>
<tr>
<td>Latinx and Latin American Studies</td>
</tr>
<tr>
<td>Latinx and Latin American Studies Minor</td>
</tr>
<tr>
<td>Law (LAW)</td>
</tr>
<tr>
<td>Law Library</td>
</tr>
<tr>
<td>Law, School of</td>
</tr>
<tr>
<td>Leave of Absence Policy</td>
</tr>
<tr>
<td>Leon E. Bloch Law Library</td>
</tr>
<tr>
<td>Liberal Studies Program</td>
</tr>
<tr>
<td>Licensure Examinations</td>
</tr>
<tr>
<td>Life Sciences - Anatomy (LS-ANATO)</td>
</tr>
<tr>
<td>Minor in Criminal Justice and Criminology</td>
</tr>
<tr>
<td>Minor in Economics</td>
</tr>
<tr>
<td>Minor in English Language and Literature</td>
</tr>
<tr>
<td>Minor in Film Studies</td>
</tr>
<tr>
<td>Minor in Gerontology</td>
</tr>
<tr>
<td>Minor in Health Sciences</td>
</tr>
<tr>
<td>Minor in History</td>
</tr>
<tr>
<td>Minor in Manuscript, Print Culture, and Editing</td>
</tr>
<tr>
<td>Minor in Mathematics</td>
</tr>
<tr>
<td>Minor in Medieval and Early Modern Studies</td>
</tr>
<tr>
<td>Minor in Philosophy</td>
</tr>
<tr>
<td>Minor in Political Science</td>
</tr>
<tr>
<td>Minor in Public Health</td>
</tr>
<tr>
<td>Minor in Sociology</td>
</tr>
<tr>
<td>Minor in Studio Art</td>
</tr>
<tr>
<td>Minor in Urban Studies</td>
</tr>
<tr>
<td>Minor in Women’s and Gender Studies</td>
</tr>
<tr>
<td>Minor in Writing</td>
</tr>
<tr>
<td>Minor Policy</td>
</tr>
<tr>
<td>Minor: French, German, Spanish</td>
</tr>
<tr>
<td>Minority Recruitment Program</td>
</tr>
<tr>
<td>Minors in Geography and Geology</td>
</tr>
<tr>
<td>Mission and Administrative Organization of Graduate Education</td>
</tr>
<tr>
<td>Mission and Administrative Organization of Graduate Education</td>
</tr>
<tr>
<td>Mission and Administrative Organization of Graduate Education</td>
</tr>
<tr>
<td>Mission, Vision and Goals</td>
</tr>
<tr>
<td>Missouri Higher Education Articulation Agreement</td>
</tr>
<tr>
<td>Molecular Biology and Biochemistry</td>
</tr>
<tr>
<td>Multiple Major &amp; Double Degree Policy</td>
</tr>
<tr>
<td>Music and Dance, Conservatory of</td>
</tr>
<tr>
<td>Music Education</td>
</tr>
<tr>
<td>Natural Sciences (NAT-SCI)</td>
</tr>
<tr>
<td>Neonatal</td>
</tr>
<tr>
<td>Nondiscrimination Policy</td>
</tr>
<tr>
<td>Notice of Nondiscrimination</td>
</tr>
<tr>
<td>Notification of Admission</td>
</tr>
<tr>
<td>Nursing &amp; Health Studies, School of</td>
</tr>
<tr>
<td>Nursing (NURSE)</td>
</tr>
<tr>
<td>Nursing (NURSE)</td>
</tr>
<tr>
<td>Oboe (OBOE)</td>
</tr>
<tr>
<td>Oboe (OBOE)</td>
</tr>
</tbody>
</table>
Index

Oral & Craniofacial Sciences (OR-BIO) ................................................................. 2178
Oral and Craniofacial Sciences ................................................................. 1288
Oral and Craniofacial Sciences Interdisciplinary Ph.D. ................................................................. 990
Oral Surgery (OR-SURG) ................................................................. 2178
Organ Emphasis Area ........................................................................ 1613
Organ (ORGAN) ............................................................................ 1958
Organ (ORGAN) ............................................................................ 2180
Organizations ................................................................................ 1738
Orthodontics (ORTHOD) ................................................................. 2180
Outreach Programs .......................................................................... 920
P
Pediatric ............................................................................................ 1733
Percussion (PERCSN) ....................................................................... 1959
Percussion (PERCSN) ....................................................................... 2181
Performer's Certificate Required Courses ......................................................... 1664
Periodontics (PERIO) ....................................................................... 2181
Personal Interview ........................................................................... 1003
Ph.D. - Counseling Psychology ................................................................. 1142
Ph.D. in Entrepreneurship and Innovation ......................................................... 1491
Ph.D. in Nursing ............................................................................... 1739
Pharmaceutical Sciences ........................................................................ 1293
Pharmacology .................................................................................. 1295
Pharmacy (PHARM) ........................................................................ 2183
Pharmacy, School of .......................................................................... 1740
Philosophy ....................................................................................... 474
Philosophy (PHILOS) ...................................................................... 1959
Philosophy (PHILOS) ...................................................................... 2195
Physical Education (PHYS-ED) ............................................................... 1962
Physical Education (PHYS-ED) ............................................................... 2196
Physical Sciences (PHY-SCI) ................................................................. 1964
Physician Assistant Program (MEDPA) ......................................................... 2196
Physics ......................................................................................... 1298
Physics and Astronomy ........................................................................ 485
Physics Minor .................................................................................. 509
Physics (PHYSICS) ......................................................................... 1965
Physics (PHYSICS) ......................................................................... 2200
Piano Emphasis Area ........................................................................ 1616
Piano (PIANO) ................................................................................ 1968
Piano (PIANO) ............................................................................. 2201
Policies on Admission of International Students ......................................................... 2330
Policies on Regular Admission - Medicine ......................................................... 2332
Policy on Student Records ........................................................................ 2319
Political Science ................................................................................ 516